

2  
1899.

(THIRD SESSION.)

---

NEW SOUTH WALES.

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VOTES

AND

PROCEEDINGS

OF THE

LEGISLATIVE ASSEMBLY

DURING THE THIRD SESSION

OF

1899,

WITH THE VARIOUS DOCUMENTS CONNECTED THEREWITH.

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IN FIVE VOLUMES.

VOL. V.

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LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## VOTES AND PROCEEDINGS.

THIRD SESSION 1899.

(IN FIVE VOLUMES.)

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1899.  
(THIRD SESSION.)

—  
LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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PARLIAMENTARY STANDING COMMITTEE ON  
PUBLIC WORKS.

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REPORT

TOGETHER WITH

MINUTES OF EVIDENCE, APPENDIX, AND PLANS,

RELATING TO THE PROPOSED

LOCKS AND WEIRS ON THE RIVER DARLING,  
BETWEEN BOURKE AND MENINDIE.

---

Presented to Parliament in accordance with the provisions of the Public Works Act,  
51 Vic. No. 37.

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## LEGISLATIVE COUNCIL.

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[\*On 18th September, 1899, Mr. JOHN PERRY, having accepted the office of Minister of Public Instruction and Minister for Labour and Industry, retired from the position of Chairman and a Member of the Committee. The Honorable WILLIAM JOSEPH TRICKETT, Vice-Chairman, was elected Chairman in the place of Mr. PERRY, and Mr. DICK was chosen as Vice-Chairman.]

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# PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

## LOCKS AND WEIRS ON THE RIVER DARLING, BETWEEN BOURKE AND MENINDIE.

### REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS, appointed during the first Session of the present Parliament, under the Public Works Act of 1888, 51 Vic. No. 37, the Public Works Act Amendment Act of 1889, 52 Vic. No. 26, the Public Works (Committees' Remuneration) Act of 1889, 53 Vic. No. 11, and the Public Works Acts Further Amendment Act of 1897, 61 Vic. No. 6, to whom was referred the duty of considering and reporting upon "the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie," have, after due inquiry, resolved that it is not expedient the proposed works should be constructed; and, in accordance with the provision of sub-section IV, of clause 13, of the Public Works Act, report their resolution to the Legislative Assembly:—

#### GENERAL REMARKS.

1. The question of making certain sections of the river Darling permanently navigable, the Committee are officially informed, has been before the Government of New South Wales for a number of years. In 1855 an examination of the river between Bourke and Wilcannia was made by the Department of Public Works, and in 1888 a sum of £20,000 was passed by Parliament for improving the navigation, and afterwards set aside for the construction of an experimental lock and weir. Up to the end of 1894 the question was dealt with solely in the interests of navigation, but at that time the papers in the matter were obtained by the Mines Department to ascertain whether the locking of the river could be profitably carried out in connection with water conservation and irrigation. In 1895, a contract was let for the construction of an experimental lock and weir at a point about 4 miles below the town of Bourke, a work which was completed about the middle of 1897.

In 1896, the expediency of canalising the river between Bourke and Berrarrina was referred to the Parliamentary Standing Committee on Public Works, who reported against the proposal on the grounds that the work "could only be regarded as an initial step in rendering the whole length of the river navigable, the benefits resulting from which would principally accrue to Victoria and South Australia, and that the Committee were of opinion that it would be unwise to engage in such outlay until the matter could be comprehensively dealt with by a Federal Parliament."

On the 22nd December, 1898, the present inquiry was authorised by the Legislative Assembly, and the Minister for Works, in submitting the proposal, urged its consideration in the interests of water conservation and navigation, and also as a possible means of benefiting the railway system of the Colony.

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## THE LOCKS AND WEIRS AS PROPOSED.

2. The Departmental proposal is to render the river permanently navigable between Bourke and Menindie, a distance by water of about 570 miles, by a system of seventeen locks and fixed weirs, constructed of rubble concrete and iron, and placed at intervals of distance varying from 17 to 58 miles. The sites for the weirs, except in three instances, it is officially stated, are at parts of the river where a natural rock bar provides a satisfactory foundation; where a rocky bar does not exist, and a weir is necessary, a foundation would be made on a bottom of stiff clay and sand. A survey of the river has shown that many suitable rock bars occur where the stream is abnormally wide with very sloping banks, conditions regarded as very suitable for the proposed works. The locks, which it is intended should, as far as possible, be placed in the river channel in positions where the river runs a straight course, would be 200 feet in length between the gates, and 37 feet in width; the lifts varying from 6 to 10 feet. This length would admit of the passage together of a steamer and barge, and the width is sufficient, the Committee are informed, for all but one of the steamers now navigating the river, and that one could easily be so altered as to be able to use the lock with the same facility as others. The weirs, would be constructed at the lower end of the locks, as far from the entrance as possible, in order to obviate the risk in time of flood of steamers being taken by the current either over or against the weir, instead of into the lock; an additional precaution against this to be a line of piles placed above each lock, to which vessels might be tied when necessary. The height of the weirs would be from 13 to 16 feet, according to the lifts provided for at the various sites, and the drop of the water behind the weirs to supply the locks, from 6 to 10 feet.

In the locks the minimum depth of water provided for is 6 feet; at the lower ends, with the water from the weir, from 12 to 16 feet. No apprehension of an insufficiency of water in the river to meet requirements is felt by the Engineer-in-Chief for Public Works. In his opinion, based upon observation and inquiry, there would always be water enough to allow for losses by lockage, evaporation, soakage, or any other cause. The average depth of the river throughout would be 8 ft. 6 in. Floods are not expected to prove injurious to settlers in the neighbourhood of the river banks by reason of the weirs, as they would be well below the top of the banks, and should a flood cause the water to rise 8 or 9 feet over a weir the flood-level would still be within the banks. What risk of erosion there might be near the weirs would be met by building into the banks until solid ground is reached, and then throwing out long concrete wings or abutments from 9 to 11 feet above the tops of the weirs; and also by facing the banks with stone.

## ESTIMATED COST.

3. The estimated cost of the works is £530,000, or £930 per mile, which amount is made up as follows:—

7 locks and weirs complete at £28,000 =	...	...	£196,000
10 " " " 26,000 =	...	...	260,000
17 lock-keepers' cottages at 300 =	...	...	5,100
300 miles telephone line at 20 =	...	...	6,000
Wharf and cranes ... ..	...	...	10,000
Maintenance steamer, fitted with small sand-pump	...	...	10,000
Contingencies ... ..	...	...	42,900
			£530,000

The estimated interest and cost of maintenance are given as follows:—

	Annual charge.
First cost, £530,000 at 3 per cent. ... ..	£15,900
Seventeen lock-keepers at £100 ... ..	1,700
Crew of steamer, stores, and up-keep ... ..	2,000
Stone and material for repairs ... ..	2,400
	£22,000

This, it is pointed out, is equal to £36 13s. 4d. per mile per annum.

WORKING

### WORKING THE LOCKS.

4. It is proposed that those in charge of the vessels navigating the river should open and shut the lock-gates, under the direction of the lock-keepers or watchmen. In time, it is thought these watchmen may be done away with, and the working of the locks left entirely to the crews of the steamers and barges, as in England. For the time being, however, the watchmen would assist in opening and closing the lock-gates, and by means of telephonic communication from lock to lock report, when necessary, anything going wrong. The steamer included in the estimate of cost would be used in connection with repairs, for which purpose it would be manned by a good crew, fitted with a small sand-pump, and furnished with a blacksmith's forge. Passing from point to point of the river, repairs, when required, could by these means be attended to without much delay, and any accumulation of silt in front of the locks, after a flood, easily removed.

### THE COMMITTEE'S INQUIRY.

5. In the course of their inquiry the Committee have had before them, for their information, the various official reports which, from time to time, have been made in connection with the improvement of the Darling, and on the subject of irrigation in the western districts, together with reports relating to water conservation and irrigation in other places; they have taken evidence in Sydney, and at Bourke, Louth, Wilcannia, Menindie, and other places on the Darling; and, accompanied by an officer of the Department of Public Works, they travelled the whole length of the river from Bourke to Menindie, and inspected the sites for the proposed locks and weirs. The witnesses examined in Sydney included the Under Secretary and Commissioner for Roads, Department of Public Works; the Engineer-in-Chief for Public Works; the Principal Assistant Engineer of the Water Conservation Branch of the Public Works Department; the Government Fruit Expert; the Chief Railway Traffic Manager; the Chief Draftsman, Department of Lands; the Government Astronomer; the Superintendent of Public Watering Places and Artesian Boring; the representative of a firm of carriers doing an extensive business on the Darling; and the surveyor who carried out the survey of the Darling for the purpose of fixing the lock and weir sites.

On the Darling those who gave evidence comprised pastoralists, carriers, and others interested in the river trade, the manager of the Government experimental farm at Pera Bore, farming lessees at the Pera Bore irrigation settlement, settlers who have cultivated by means of irrigation from the river, and the caretaker of the lock and weir at Bourke.

In the consideration which the Committee have given to the proposal before them they have inquired into the three-fold aspect of the question—the permanent navigation of the river, irrigation and increased settlement along and in the neighbourhood of the river banks, and the prospects from an improved waterway of additional traffic to the railways.

### THE LOCK AND WEIR SITES.

6. The inspection of the sites for the proposed locks and weirs showed most of them to be in suitable positions. In two or three cases the conditions were regarded by the Committee as not quite what is desired, but the depth of the stream and the nature of the river-bed, in places which otherwise would meet requirements, have rendered it necessary to choose situations not in every respect as suitable as could be wished.

Site No. 1 is  $38\frac{1}{2}$  miles below the lock and weir at Bourke, and near Yanda station. The approach to it down the river is at a bend in the stream, where it did not appear to the Committee to be desirable to construct the lock and weir, as a bank on one side was evidently "making" in a manner which suggested a possible repetition of a mistake noticed in connection with the lock and weir at Bourke. Round the bend there is a straight run in the river for a considerable distance, and as rocks extend some distance from the point of the turn, it seemed to the Committee quite possible to place the lock and weir in a position where the approach either way would be easy, and the risk of the lock silting up very small.

Site

Site No. 2, which is at Toorale landing, 71 miles from the Bourke lock and weir, is situated near a slight bend in the stream, but in a fairly long reach, and in such a position as should prevent any silting up as at Bourke.

Site No. 3, at Singleton's Crossing, 97½ miles from the Bourke lock and weir, was found to be situated at a short and somewhat awkward turn of the river, apparently as difficult as the site of the lock and weir at Bourke. The river at this point winds very sharply, and certainly does not in its present state offer a suitable approach; but it was explained by the Departmental surveyor accompanying the Committee that one of the sand points would be removed so as to provide a straighter run. A short distance beyond this site, and just past the point to be cut away, is a fine long reach, which should form an admirable position for the lock and weir, but the necessary foundation, it is said, cannot be obtained, there being rocks on one side only of the river, and the bottom of the stream being soft mud. About a mile beyond the site, however, and at some rocks known locally as "Charley Mathews' Rocks," it appeared practicable to find a site superior to that chosen.

Site No. 4, at Louth, and 115 miles from the lock and weir at Bourke, was found to be in a straight run of the river, and apparently very suitable for the purpose in view. It is situated just before turning round the bend in the stream from Bourke to the punt-crossing at Louth township.

Site No. 5, or Dunlop site, is about 2 miles below Dunlop station, and 133 miles from the Bourke lock and weir. The approach to it from the Bourke side is circuitous, the river winding considerably, and the turns short; but on rounding into the straight run, where the pegs denoting the position for the lock and weir are placed, it can be seen that the site is well down the reach, and should be satisfactory. The choice of some of these sites, it was explained, is due to the difficulty of finding in their vicinity positions where the water is shallow, and the bottom hard enough to admit of a good foundation and the required height of walls.

Site No. 6 is at the Curranyalpa Rocks, 187 miles from the Bourke lock and weir. Here, again, the approach from Bourke is tortuous, the stream broken by several small islands, the water shallow, and the navigation so difficult that the steamer by which the Committee were travelling bumped heavily several times and grounded. The rocks at this part of the river extend along the stream for a considerable distance, and practically form the key to the river, as the risk of steamers touching the rocks or grounding is greater here than in any other part, and the fall is considerable. After passing the small islands, the stream bends round into a short straight run, and then turns into a very fine long reach, about midway in which is the site for the lock and weir. It appears to have been wisely selected, and should prove satisfactory.

Site No. 7, near Tilpa, and 211 miles 60 chains below the lock and weir at Bourke, has not yet been surveyed, but the position is a good one, in the centre of a reach.

Site No. 8, at Ryan's Island, and 253 miles from the Bourke lock and weir, also has not been surveyed. The lock, the Committee were informed, may be constructed on one side of the island and the weir on the other.

Site No. 9 is just below Talyawalka Creek, and in the vicinity of a small island, near a bend in the river, which forms the approach to a long reach. The stream is broad, and the site, apparently, suitable. The island may be removed, or the lock and weir placed as indicated in the case of site No. 8.

Site No. 10, near Mount Murchison station, is in a long, straight run of the river, where the stream is of good width.

Site No. 11 is near Murtee station, and 358 miles from the Bourke lock and weir.

Site No. 12, which is 18 miles 27 chains from Wilcannia, and 393 miles 27 chains below the lock and weir at Bourke, is situated at an awkward turn in the river, which will make a somewhat difficult approach up or down stream to the lock. Just past the bend there is a long reach, but apparently the water there is too deep for the foundations of the proposed works, or it may be otherwise unsuitable.

Site No. 13, or Culpaulin site, was also found to be near a bend in the stream, but in a fairly good straight run when, going down stream, the bend is rounded. It is



is not as good as might be desired, but at the same time is not objectionable, and has been selected because its position is where some rocks offer a suitable foundation. It is situated about 5 miles by water below Culpaulin homestead, and 418 miles 65 chains from the lock and weir at Bourke.

Site No. 14, or Mulyenery site, is fairly good, but in a situation where the river twists about a great deal. The position is 451 miles 50 chains from the Bourke lock and weir.

Site No. 15, at Christmas Rocks, is 477 miles 15 chains from the Bourke lock and weir, and, like most of the other sites, near a bend in the stream, but, notwithstanding, may prove fairly easy and good.

Site No. 16, or Henley site, is in a long straight run of the river, where there is a bottom of hard clay and nodular limestone, and is very suitable. It is near Henley station, and 510 miles 70 chains from the lock and weir at Bourke.

Site No. 17 is about 8 miles beyond Menindie and 569 miles 50 chains from the Bourke lock and weir. It was somewhat difficult to ascertain its exact position, but the part of the river in which it should be appeared suitable for the purpose.

#### SNAGGING.

7. The snagging of the river is a necessary work, and has been proceeded with for some time. Up to date, £97,000 has been expended between Walgett and Wentworth. Of the length of the river proposed to be locked, it is said, a little more than 200 miles has been cleared; but in their journey down stream it appeared to the Committee that it was only below Wilcannia, and in one or two places above it, that operations were being carried on with any system. For most of the distance between Bourke and Menindie, the river banks presented to the view numbers of instances of trees with roots denuded of soil, from the effects of flood-water, and certain, sooner or later, to fall into the stream; and something must be done before long to remove them. The snags which have been dealt with lately, the Committee are informed, were the accumulation of years.

#### PECULIAR CHARACTER OF THE DARLING.

8. In some respects the river Darling is unlike most other rivers. Very little of the sparse rainfall on much of its catchment area finds its way into it. The country through which it runs is so absorbent that most of the rain sinks rapidly into the ground, and much of that which goes into the river seems to disappear in its gravel beds. Streams which, as tributaries, should feed the main channel disappear in the soil before the river is reached. At times the flow of water practically ceases, and generally the conditions differ from those of rivers elsewhere. In English, European, and American instances the rivers have either low banks with a small fall or high banks with a quick fall; but the Darling has high banks and a small fall—the fall averaging only 3 inches to the mile. During a dry season most of it is a series of pools at different levels; but in time of flood the water rises to a great height. For more than half the period since 1882 the river has been closed to navigation, and trade, as a consequence, greatly hampered.

#### NAVIGATION OF THE RIVER.

9. With the carrying out of the proposed works, all uncertainty in regard to navigation between Bourke and Menindie will, it is confidently stated by the Engineer-in-Chief, cease. The effect of the Bourke lock and weir with a fresh in the river, and the shutters closed, is said to be noticeable for a distance above the weir of 50 miles; but, with a low river, so much water escapes through the interstices of the shutters that the weir becomes ineffective, and, therefore, it is proposed to convert it into one of a fixed description, similar to those designed for the river below Bourke, at an additional cost of about £4,000. At the time of the Committee's visit to Bourke there was a fresh in the river, but, according to the Engineer-in-Chief for Public Works, before the fresh came there was nearly enough water above the Bourke lock and weir to keep the trade of the river going. With the

the additional locks, the number of steamers would probably increase, but no doubt is felt as to a sufficiency of water under any circumstances which up to the present have been experienced. The absence of locks and weirs between Menindie and Wentworth would, in periods when the Darling is low, interfere with the navigation of the river for its whole length; but in view of the elaborate and expensive nature of the works in the present proposal it is unlikely that the locking would be allowed for long to terminate at Menindie.

#### IRRIGATION.

10. Irrigation along the banks of the Darling the Committee found to be possible in small patches, but the uncertainty of the water supply seems to preclude the practicability of large areas being treated. With a locked river fairly extensive areas could, no doubt, be used for fruit culture. In one instance, a paddock of 23 acres was seen in which fodder crops, fruit-trees, and grape-vines were growing successfully; but in other cases met with, cultivation extended no further than fruit and garden produce for station use, and fodder crops for feeding valuable stock in times of drought. The station managers from whom evidence on this subject was obtained, were practically unanimous in their opinion that cultivation of fodder crops by irrigation was only possible to a limited extent. As with the large station properties, so it is with the smaller areas occupied by homestead lessees and others—cultivation, wherever attempted, has only been carried out on a small scale. Wool is the product of the holdings, and the only one which it is considered will yield a satisfactory return. Even if it were practicable to cultivate fodder extensively, the produce so grown could not, it is said, compete successfully with that imported by way of the river.

At Yanda, about 38 miles below Bourke, there have been grown, by means of water from the river, various kinds of fruits with very good results; but the land on the Darling between Yanda and Bourke is liable to flood as far as for 12 miles back, and the flood of 1890 destroyed all the stone fruits at Yanda. At Dunlop, near Louth, a small irrigated paddock has been sown with lucerne, with the result that a fair crop has been grown, and, at the time of the Committee's visit, another paddock, of 4 acres, was being graded and otherwise prepared on the bank of the river, also for lucerne. Murtee station, near Wilcannia, was found to have a small patch of cultivation near the homestead, and a vegetable and flower garden. Similar conditions were found at Tintinallogy station. At Kallara, near Tilpa, a 12-acre paddock, sown with wheat, oats, and lucerne, and a fruit and vegetable garden, were seen; and at Gundabooka station cultivation has been carried on with river water, apparently with successful results. At various points along the river banks, several small market gardens were observed, irrigated and worked by Chinese; and at Winbar station, the Committee were informed, a comparatively large area was under irrigation and successful crops. The Committee, however, were unanimously of the opinion that to grow crops for sustaining large flocks was impracticable.

Opinions differ as to the best soil for cultivation purposes on the banks of the Darling, some favouring the red, and others the black or grey, soil. The latter is that of which the 23-acre paddock mentioned consists, and there, undoubtedly, crops of wheat and lucerne mixed with trefoil, and grown for hay, looked very well; but equally good results are to be seen on small patches of red soil, and it is probable that each description of soil has its advantages. According to the evidence of the Engineer-in-Chief, there would not be sufficient water conserved by the locks and weirs for both irrigation and navigation, and in view of this the Committee endeavoured to ascertain whether it were possible to promote irrigation by raising the height of the weirs. Such a course, the Engineer-in-Chief stated, would add considerably to the cost of the work, and anything above 1 foot of extra height would render the adjoining country liable to damage from flood; but local witnesses in the inquiry were of opinion that no such damage would occur, and that if the increased height of the weirs resulted in the water overflowing the adjoining land at times when the river was in high flood the land would be benefited thereby instead of injured. This latter view seems to the Committee to be the correct one, as, if the weirs were raised, the extra height of the flood waters over the immense floodable area would be inappreciable.

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The Committee during their visit took every opportunity, by inspection and inquiry, of examining the Darling country, both as regards the character of the soil and the contour of the land, and it was self-evident that the mere damming back the waters of the river to a few extra feet in height, would not, as many people imagine, enable the residents to convert these at present barren wastes into large tracts of cultivation, nor would it change the present condition of severe hardship of the residents into one of corresponding prosperity. If such would be the early advantages, the Committee's observation of the great difficulties with which the western settlers are now contending, would induce them to at once recommend the scheme. But both observation and the evidence prove that there are many great difficulties in the way, and in view of the fact that irrigation is possible only to a limited extent, and is, in this instance, dependent on the adoption of a primary scheme providing for navigation at a cost of half a million of money, the Committee regret that they cannot advise the expenditure.

Before any extensive scheme of irrigation is undertaken on or near the banks of the river Darling, it appears to the Committee that it will be necessary that full inquiry be made as to suitable areas, levels, quality of soil, and other matters associated with such a large and expensive work.

Some inquiry was made by the Committee with respect to irrigation by means of artesian water, and at the Pera Bore settlement it was found that the cultivation carried on there is fairly successful.

#### EFFECT OF THE LOCKING UPON ANA BRANCHES.

11. The level of the Talyawalka and other creeks is above what will be that of the ordinary locked river, and hence the construction of the weirs would not, with the river at the locked-level, result in the backing up of the water so as to feed these ana branches; but as every fresh would, after the construction of the weirs, have a permanently higher river to start with, these creeks and billabongs would certainly be more frequently filled. During the Committee's run from Menindie to the position of the last lock-site it was found that the locking of the river would result in the filling of Tandure, Pamamaroo, and Menindie Creeks, but that the water would not flow into Menindie Lake. It did not, however, appear on inquiry that the permanent filling of this lake with water would be of any special advantage. The water is not required permanently as its presence prevents the land forming the lake-bed from being used for depasturing stock. It is a limited supply of water, quickly disappearing, that is of any value, for then it promotes the growth of herbage specially useful for feeding and fattening purposes.

#### FIXED, AS COMPARED WITH MOVABLE, WEIRS.

12. The question has arisen whether fixed weirs are preferable for use in the river Darling to those which are movable. The weir constructed below Bourke is a movable one, on the Chanoine or shutter system, and was proposed and carried out in the belief that during ordinary seasons it would impound sufficient water for navigation, and, in flood time, be capable of manipulation which would practically remove it as an obstruction. It has, however, been found that when the Darling is low the weir will not hold water, and, in the opinion of the Engineer-in-Chief for Public Works, it is not suitable for a river where, at times, the flow practically ceases, and where it is not possible to erect an overhead bridge from which to work the shutters. The Chanoine weir has been used very successfully in France, where it was first introduced, and it is to be found in America, but the conditions in French and American rivers must be suited to both its construction and working.

When at Bourke the Committee made a careful examination of the lock and the shutter-weir, and at the first glance it was evident to them that the site was ill-selected and the weir ineffective. The site is in a bend of the river which affords every facility for the accumulation of silt, the result being that close to the upper side of the lock entrance, a large bank of sand has formed, and the approach to the lock is so much interfered with as to make entrance by a vessel impracticable. This obstruction,

obstruction, which would never have occurred if reasonable forethought had been exercised in the selection of the site, will have to be removed at considerable expense. The working of the shutters was watched on each of two occasions upon which the lock and weir were visited, and a most unfavourable impression was formed of their manipulation. With an easy river and moderate flow, the process of raising and lowering some of them was observed, and found to be primitive, unreliable, and productive of great delay. When the shutters were up, the quantity of water that escaped through the interstices was so great as to show conclusively that it was not possible for the weir as constructed to be satisfactory. The photo-reproduction published with this Report shows unmistakably its uselessness as a means of holding back the water with a low river. The opinion formed by the Committee of the working of this shutter-weir was most unfavourable, and they cannot too strongly urge the undesirableness of its being again used.

#### TOLLS ON THE RIVER.

13. The imposition of a toll on the river, when locked, could be made to contribute towards interest on the money expended, and, perhaps, prevent some of the trade from leaving New South Wales; but it may be contended that as the roads of the Colony are free, notwithstanding the large annual expenditure upon them, the rivers should be in a similar position, and it is not by any means certain that the imposition of an effective toll would be approved. To pay interest upon the capital expenditure, and to provide for cost of maintenance, would take a little over 4 per cent. on the total sum, or £22,000 per annum.

#### RAILWAY TRAFFIC QUESTION.

14. On the railway traffic question the conclusion is unavoidable that the locking of the river will be a serious disadvantage to the New South Wales Railways. Wool coming down-stream from above Bourke reaches, under present circumstances, the railway at Bourke, and possibly some of this would continue to be sent through Bourke to Sydney, notwithstanding the carrying out of the proposed works; but the tenor of the evidence collected from pastoralists and others, along and in the neighbourhood of the Darling below Bourke, is that with a navigable river the bulk of the trade, if not the whole of it, will go to Adelaide or Melbourne.

Most, if not all, of the station properties in the Darling district below Bourke are, more or less, in the hands of South Australians or Victorians, whose business relations and sympathies are naturally with South Australia or Victoria, and those colonies are regarded as having the first claim on the trade. If cheaper transit by rail to Sydney, as compared with the cost of carriage by river to Adelaide or Echuca, could be obtained, the New South Wales Railways might secure some of the wool; but it is very doubtful whether the Railway Commissioners could offer sufficient inducement to draw trade from the river, and whether, if they could, a Federal Parliament and an Inter-State Commission would permit it to be done.

The evidence of the Chief Traffic Manager of the Department of Railways on this question of the trade and its relation to the railways is very emphatic. In his opinion, and that of the Railway Commissioners, a locked river, instead of being a feeder to the railway system, will act as a "sucker." The competition between the Colonies for traffic is now very keen, and to improve the river in the direction of rival ports or centres of exchange, is regarded by the railway authorities as increasing the disposition of trade to go in that direction.

#### DECISION ARRIVED AT.

15. From the evidence before them, and what they saw during their visit of inspection, the Committee are of opinion that the permanent navigation of the Darling, at least between Bourke and Menindie, would by the construction of the proposed works probably be assured, though it is doubtful whether the advantages from this long stretch of navigable water—570 miles—would not be greatly discounted by the absence of locks and weirs below Menindie. Irrigation and increased settlement in the vicinity of the river banks are not impossible, but, in view of difficulties disclosed

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by the inquiry into this branch of the subject, are most unlikely on an extensive scale. It does not seem probable that the proposed works would benefit the railways. Further, it must be borne in mind that the river Darling is an important waterway in which three, if not four, of the Australian colonies are interested, and that being the case so large and costly a proposal as the expenditure of over half a million of money for its improvement is peculiarly one for Federal action, and can very justifiably be left over for the consideration of the Federal Parliament. To carry out the proposed works now would be to saddle New South Wales with the whole cost of a project which, in view of the early completion of Australian federation, should remain in abeyance until the federated colonies together can deal with it comprehensively, and in a manner and on terms fair to all.

The Committee, therefore, have resolved that it is not expedient the proposed works should be carried out, for the reasons—

- (1) That though the construction of the locks and weirs proposed would probably secure permanent navigation on the Darling River between Bourke and Menindie, no benefit would accrue to the trade of New South Wales in connection with its railways.
- (2) That irrigation on a large scale by means of water retained in the river by the locks and weirs is impracticable.
- (3) That a proposal for any such large expenditure upon the River Darling, as is involved in the present inquiry, is a matter which may be fairly left for the consideration of the Federal Parliament.

The following extract from the Committee's Minutes of Proceedings of 1st November, 1899, shows the resolution adopted :—

Mr. Dick moved,—“That, in the opinion of the Committee, it is not expedient the proposed Locks and Weirs on the river Darling, between Bourke and Menindie, as referred to the Committee by the Legislative Assembly, be carried out.”

The motion was seconded by Dr. Garran, and passed.

W. J. TRICKETT,  
Chairman.

Office of the Parliamentary Standing Committee on Public Works,  
Sydney, 21 November, 1899.

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- R. R. P. Hickson.  
15 Mar., 1899.
6. Has it been used to any extent? I do not think so.
7. *Mr. Trickett.*] Has it not been a success, so far as the backing up of the water to the town of Bourke is concerned? Yes. It is of no use, of course, having 4 or 5 miles of a river navigable and the rest unnavigable.
8. You say :  
The canalising of this length of river should only be regarded as an initial step in rendering the whole length of the river navigable.  
? That is the report of a former Public Works Committee.
9. The statement continues :  
The benefits resulting from which would, principally, accrue to Victoria and South Australia.  
Has anything occurred to alter that opinion? Not to my mind.
10. You think that the benefits would principally accrue to the other Colonies? I think so.
11. The statement continues :  
The Committee were of opinion that it would be unwise to engage in such outlay until the matter could be comprehensively dealt with by a Federal Parliament.  
I suppose your Department think differently from that? We have submitted a scheme for the Committee to decide what they think about it.
12. Is this scheme in any way connected with possible irrigation? Yes.
13. Did you work along with Colonel Holme when he was here? No; but he was attached to the Department. Mr. McKinney accompanied him into the country.
14. Have you considered his reports? They passed through my hands. I had not anything to say in connection with them.
15. Did you consider them sufficiently to enable you to say whether you endorsed his views or not? No.
16. *Mr. Shepherd.*] Was the survey of the river carried out under your directions? Under Mr. Darley's directions.
17. Are the proposed locks equi-distant from each other? No.
18. Is the bed of the river, generally speaking, rocky? No; there are rock bars, but a good deal is sand.
19. I suppose the navigation of the river has been the chief object in view? That is the main object in view; but, of course, the matter is closely mixed up with water conservation.
20. Do you know if regard has been had to the formation of the country in various places with a view of ascertaining whether the water can be run back to the billabongs? No; that cannot be done. If the river is used for water conservation, it will have to be pumped. The water would only run into the billabongs when the river was very high.
21. Is the country between the points where it is proposed to construct the locks comparatively level? Yes.
22. So that really, in flood-time, the water could be conveyed beyond the banks of the river by cutting small canals? Yes.
23. *Dr. Garran.*] What was the cost of the lock which has been made at Bourke? £23,000.
24. Have you any one in charge of it? Yes; one man.
25. Has there been any kind of revenue from irrigation, or the use of the locks? No.
26. You state that the Mines Department applied for the papers with the view of taking up the locking of the river in the interests of water conservation, hoping to show that in this way the work would pay;—has there been any attempt to make it pay? Not as far as I am aware.
27. Do you know whether the lakes in the neighbourhood of the river are fresh water? Some years ago the lakes were dammed across the entrance and filled up.
28. I believe that one of the Menindie lakes is fed from the river;—could any of the others be fed from the river? In flood time they could.
29. Do they dry up? Yes.
30. I suppose you could not find any of them there now? I am not sure about the big one—the large Menindie Lake. There is a dam across it.
31. I suppose you do not know whether the others are in existence? I suppose they are almost dry now.
32. When was the survey of the levels of the river made? It has only just been finished.
33. Do you think you have the levels pretty accurate? Yes; up to date.
34. In every case you could lock back the water up to the lock above it? The section shows that in each case the lock holds the water back to the lock above it.
35. And leaves enough for the navigation of small barges? Yes.
36. What are they supposed to draw? From 2 to 4 feet when they are fully laden.
37. To make the river navigable, you would want at least 4 feet of water? You would want about 5 feet.
38. Below every lock? Yes.
39. And you provide for 5 or 6 feet of water below every lock? Yes; 5 feet, I think it is.
40. Would there be any need to lock the river between Menindie and Wentworth, so as to make the river continuously navigable? I think it ought to be locked the whole of the way.
41. If you lock the river as far as Menindie you will still be stuck up, and unable to travel between Wentworth and Menindie? There is a better river, and for a longer period, from Menindie down, but there are times when the navigation is bad there too.
42. Could you, a week or two ago, before the fresh which is coming down now, navigate to Menindie? I do not think so.
43. Could you navigate to Morgan on the South Australian Railway terminus? I think you could always get a river from Morgan to Wentworth.
44. That is to say, that the Murray is always navigable and the Darling is not? Yes.
45. The navigation stops at Wentworth in a bad season? A short distance above it.
46. To make a complete scheme of navigation for the Darling we should have to go to Wentworth? Yes, close to it.
47. Has that part been surveyed? Not yet.
48. Then the scheme before us is not an absolutely complete scheme for making the whole of the Darling navigable? No, it only goes as far as Menindie.



49. Would it require another £100,000 to do the rest of the work? I could not say.

50. *Mr. Watson.*] With regard to going no further than Menindie with the lock, was there not some idea that by going that distance we might be able to compete with a railway at Wilcannia;—for instance, traffic would go up the river for a reasonable distance to a railway, if it were navigable to it and not navigable below? Yes; that would be one reason for going as far as Menindie only.

51. Do you know whether any attempt has been made to put weirs at the entrances of the ana branches? Not in connection with the ana branches. The only attempt has been made at Menindie Lake.

R. B. P.  
Hickson.  
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Cecil West Darley, Engineer-in-Chief for Public Works, Department of Public Works, sworn, and examined:—

52. *Chairman.*] Have the plans in connection with the proposal under the consideration of the Committee been prepared under your direction? Yes. C. W. Darley.

53. Will you explain the details? The proposal before the Committee is to construct a series of locks from Bourke as far as Menindie. The distance by river is about 600 miles. The average fall in the river very closely approximates 3 inches to the mile. Were it not necessary to take into consideration the nature of the foundation, we should decide on the height of lift to adopt, and divide it into equal distances; but it was necessary, in fixing the sites of the weirs, to take into consideration the best spots in which to place them. Hence we select natural rock bars, but in about three cases, where we cannot get a rocky bar upon which to construct, we must make a foundation on the natural bottom, which is composed of very stiff clay and sand. Of course we have to take the ordinary precautions to obtain a good foundation under such circumstances. In most cases we can get a fairly good rocky bottom; we call it rocky, but most of it is composed of beds of rock mixed with stiff clay. The height of lift in every case has to vary on account of the distance between the locks varying so much. The distance between the locks varies from 17 miles to 58 miles. The two closest are at a point near Louth. There is a considerable fall there for a long distance, and it is greater at that particular point to which I have referred, so that we had to put two locks close together. The form of weir I propose is what is known as the "fixed weir." It is a fixed rubble concrete weir, with a lock in the river. In fixing the height of lift and depth of water, I, at all times, kept a minimum of 6 feet of water over the lower sill of the lock. That is the depth of water held back by the locks below. In all cases it holds up to 6 feet on the lower sill of the lock. I find that is quite sufficient for navigation. The deepest boat on the river, when laden, does not run to more than 5 feet 6 inches. The lifts vary from 6 feet to 10 feet near Carranyalpa; there are two places where I was obliged to put in 10-foot lifts to get up. With respect to the class of lock adopted, I wish to point out that the first report on the locking of the Darling was by Mr. Gordon. His report was ordered to be printed by Parliament on the 7th December, 1890. In that report he recommended a series of locks in the river, occupying a portion of the river with the weir—that is, with the locks and weir in the river. The matter was sent to the Public Works Department to be dealt with, and it was put in the hands of Mr. Williams, assistant engineer, who looked after works of this kind. The proposal then was to construct a lock near Wentworth. He proposed putting the lock across a bend of the river, and putting the weir on the main course of the river. You can easily understand that in many cases it would be quite possible, under those conditions, to save 3 and 4 miles of navigation by a short cut along a loop. I recommended and supported that suggestion. At that time I had never been on the river. Mr. Williams reported that the bed of the river was of a good stiff clay formation, and, on the strength of that, I supported the view that the locks should be kept away from the weir. When I was giving evidence before a previous Public Works Committee, I held to the view that the weirs and locks ought to be kept separate, if possible, because there must be a certain amount of draw upon a weir, and unless proper care is exercised there may be a certain amount of risk in approaching the lock, if the weir is alongside it. As I have stated, I advocated the proposal which emanated from Mr. Williams, to put the lock in a bend of the river. An estimate was subsequently prepared for locking the Darling, and the matter stopped at that point, the Minister stating that he could not see his way to do anything, as the cost was so great, nor could he see anything sufficient to warrant the matter being placed before Parliament at that time. The papers were then applied for by the Mines Department, the Minister for Mines stating that he thought that he could show that he could make the locking of the Darling pay in the light of irrigation. With that view, he took up the question of the locking of the Darling. Of course the question of the navigation of the river naturally came under the Works Department; but when the question came to be one of irrigation, the Minister for Works allowed it to be transferred to the Minister for Mines who had the question of irrigation in his hands at that time. In the light of an irrigation proposal the matter was then placed before the Public Works Committee, and, after a long inquiry, they reported against it. It was not shown then, I think, that irrigation was going to benefit by locking the Darling. Personally, I could not see how locking the Darling could benefit irrigation. Mr. McKinney prepared a design on behalf of the Mines Department for a lock and weir on what is known as the Chanoine system, with folding shutters, and authority was given to construct it at Bourke. It was in course of construction at the time the inquiry on the construction of locks and weirs on the Darling was last held. When I was under examination at that time, I pointed out that, whilst in many cases the system was an excellent one, and very suitable for many rivers, I did not think it was suitable for the Darling, where the water practically ceased to run, therefore we could not afford any leakage or loss of water through the shutters. The position I then took up has been pretty well upheld, for we have seen that, when the Darling went low, the weir had practically no water behind it. The whole of the discharge of the river passed easily through the space underneath and between the shutters. Therefore no water was held up. Practically, then the weir is of no utility, except when there is a moderate amount of fresh passing down the river; but for a low river it is of no use. When making an inspection of the river some time ago, I personally examined the place, and saw that the difference in level above and below the weir was only a matter of a few inches. I then quite satisfied myself—as I was satisfied before—that it would not be suitable; and I assert now that if the Darling is to be locked, it cannot be locked on that system. The system has been a great success in America and Europe, but the rivers of those countries have always a large body of water passing down them. There is always a good stream passing down the rivers where shutters have been used, and they can

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C. W. Darley. can afford the leakage—that is, the quantity of water passing between the shutters is of no moment, and they can afford a considerable space between the shutters. Although, when I visited Bourke, the shutters were down, and well constructed, and were temporarily caulked with rope, yet practically no water was held up by them. I therefore came to the conclusion that the scheme before the Coommittee would be of no use if we adopted shutters, because I was certain they could not be tight and act automatically. I determined then to go in for fixed weirs. I have so far departed from the recommendation I previously made in my report that I am following the lines of Mr. Gordon, and so far following the lines of Mr. McKinney, in recommending that the locks be placed in the river with the weirs beside them. Of course, when I reported on a former occasion, I had not been on the river, but was guided by the information I obtained from my officers. I have seen, however, that the country is, to a large extent, of an alluvial and soft sandy nature, and although you might get a suitable bend in which to put a lock, it might be a very unsuitable place, so far as the formation of the country is concerned, for a weir. The matter really came back to this state of things: That it was imperative that we should make use of the natural facilities offered by the rock bars to construct the locks and weirs upon them. I have so far departed from my previous recommendation, that I think now that it is necessary to adhere to the natural features of the country—the rock bars in the river. It so happens that, in the case of nearly every rock bar we have surveyed up to the present, the river is wider than it is in its normal condition. The normal condition of the river shows fairly steep slopes. In many instances when I went up and down them, I was glad to hold on by the root of a tree. The abnormal state occurs where there is a rock bar, and then you find that the slopes on one side at least, if not on both, are very flat. So far that falls in with our requirements, and enables us to obtain a wider breadth of river where we can put the locks and weirs. All the rocks I examined were of that formation—one, if not both, banks were on easy slopes, with a wide river. It is in these places, where nature has left the rock bars, that it is now proposed to construct these locks. There are three instances of lock sites which will be a little more costly in putting in the weirs, but I have averaged for them in my estimate. The system of weir now constructed on the Darling was known as the Chanoine system. It has been very successful indeed in France, where it originated. On the Seine a number have been constructed, and also a number in America. At the same time, there is a considerable difference of opinion amongst English engineers as to its advantages and disadvantages. The general opinion is that they do not like any form of fold-gear unless you can have an overhead bridge from which to operate it. In the case of the Darling, of course, it is impossible to have an overhead bridge unless it is erected at a great height to pass navigation underneath. In the case of the Seine and large American rivers there is no great rise of flood. The floods only rise a few feet, so that you can get an overhead bridge from which to operate the shutters. There are a great many other forms of weir, but this is a very good one, and the engineers recommend that they should not be put up unless you have an overhead bridge from which to operate them. As I have stated, we cannot erect an overhead bridge, because we need free navigation.

54. Have you abandoned that idea altogether? I propose to abandon it for, as I have already stated, if the river is to be locked, it cannot be done on this principle, because it will not hold up the water when the river is low. For the last three months a row-boat could hardly approach the lock.

55. *Dr. Garran.*] Then we have spent £23,000 to find that that sort of weir is not suitable for the Darling? Not suitable for the Darling in dry weather.

56. *Mr. Watson.*] Do you think that all that money is wasted on the weir;—could it not be converted into a fixed weir? Of course the greater portion of the money is in the lock, and it could be utilised if we determined to make it a fixed weir. The foundations are in, and it would not be a costly matter at all. If the lock is proceeded with, it will have to be altered into a fixed weir—that is my opinion.

57. *Chairman.*] Experience has proved that the shutter system on the Darling is a failure? In my opinion it is not suitable for the Darling. It is not suitable for a river where the flow practically ceases. We cannot afford to lose any water. For over two months the Darling, to all intents and purposes, ceased to flow. Therefore we cannot afford any loss of water. What we call the lockage water—filling and emptying the locks to let vessels up and down—is the maximum we can afford to lose. The conditions of the Darling River are, I think, unique. I can find no record in any part of the world of any other river with the same conditions. The invariable conditions of English, American, and European rivers are either low banks, with a small fall, or high banks with quick fall, whereas the Darling has high banks and a small fall. The floods also rise to a considerable height, and prevent any form of bridge being constructed over the weir from which to operate it. The system has this advantage: When the river rises to the condition required, the weir can be put out of the way, and the boats go to and fro over the locks; but with a fixed weir they must, except in the case of a flood, always pass through the lock. As soon as the water is 8 or 9 feet deep on the weir, you will practically lose sight of it, and the boats can pass freely over it. That, however, will only occur when there is a good fresh in the river. For the greater portion of the year all vessels will have to pass through the locks. Navigation can always be secured to the shipping, but they will have to pass through the locks, excepting when there is a flood 9 feet deep over the weir.

58. *Dr. Garran.*] How long will one of these floods last running over the weirs? In wet years, like 1890 and 1891, there would be clear navigation for more than half a year, and boats would have been able to go clear over the weirs.

59. Do the floods increase the velocity of the Darling very much? Yes; up to a maximum of about  $1\frac{1}{2}$  mile an hour.

60. *Mr. Trickett.*] In connection with a former inquiry I asked Mr. McKinney the question:

Might it not happen that more water was running through the interstices than was coming into the river?

He replied:

That could be regulated. First of all the side bays could be gradually closed, and then, if necessary, some of the spaces between the shutters could be closed by sliding down boards in front of the weir.

? When I saw it the other day the water was passing underneath. It was boiling up between the bottom of the gate and the sill. In other words, there was such a small quantity of water going down that, unless there was something very solid there, you could not prevent it leaking through. No doubt the Chanoine system is an admirable one where there is a good flow in the river.

61. *Chairman.*] If the shutters were down, would there be any danger of a big deposit of silt upon them? No doubt there would be some, but nothing serious. They are below the level of the sill, and any water passing over the sill would, no doubt, scour them.

62. *Dr. Garran.*] Is there any risk of the river making a new channel for itself, and going around at the end of one of the weirs? There is always a risk in work of this kind; but we must put up a strong abutment, and a good connection with the dyke, to try and obviate it. C. W. Darley.  
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63. We have had one instance of a weir being made, in connection with which the river made a new course for itself? In that case which occurred on the Macquarie, not far from Warren the weir was not finished. It was only in course of construction.

64. *Mr. Levien.*] I suppose the weirs will be erected where there will be no chance of the river cutting through and taking another course? Yes; we shall avoid places of that kind. We shall erect them where we can get a straight reach of the river.

65. *Mr. Shepherd.*] I suppose the chief object in view is navigation? Yes.

66. And I suppose the river is seldom brought up to a level with the banks? Only in a big flood.

67. Would it be difficult to convey water from the river into any of the dry lakes or billabongs? Water goes in now naturally, and no doubt will continue to do so. I would call the attention of the Committee to the period of navigation for a number of years back.

Year.	River closed.	River open.	Year.	River closed.	River open.
1882.....	40 weeks	12 weeks	1891.....	1 week	51 weeks
1883.....	46 "	6 "	1892.....	12 weeks	40 "
1884.....	49 "	3 "	1893.....	1 week	51 "
1885.....	52 "	.....	1894.....	12 weeks	40 "
1886.....	22 "	30 weeks	1895.....	44 "	8 "
1887.....	14 "	38 "	1896.....	35 "	17 "
1888.....	41 "	11 "	1897.....	27 "	25 "
1889.....	28 "	24 "	1898.....	38 "	14 "
1890.....	2 "	50 "			

Since the year 1882 the river has been closed for 464 weeks, and it has been open 420 weeks. Thus for over half that period the steam-boat proprietors have had their boats lying idle, and of course they really suffer more than when they are at work. I do not think they can complain of the little extra trouble to which they would be put in having occasional delays in passing through a lock, especially if they secured permanent navigation. From Bourke to Menindie they would have to pass through seventeen locks, and I do not think they would consider that anything of a hardship if it secured them permanent navigation. With respect to the working of the weirs, one point to which I called attention when I was giving evidence on a former occasion was that, in my opinion, the Chanoine weir was hardly suitable to construct in out-of-the-way places, such as we have on the Darling, out of the reach of repairs, with no town within 50 or 60 miles, and without even a blacksmith handy. Under such circumstances, if anything went out of repair, navigation might be closed for some time. That is one reason why I am in favour of fixed weirs. There is also the question of the cost of attending to the weirs. On a previous occasion I found it very difficult indeed to obtain any information as to the number of men required to attend to a weir. I have since obtained information from America, where the weirs are larger than ours. There they require a considerable staff of men to attend to a weir—six or seven, and sometimes more. Of course on the Darling we could not get more men when they are required, and it would be necessary to have at least three men stationed at every lock to attend to the folding shutters—that is, if the Chanoine system were adopted. Under the fixed system, I provide for one man for each weir, and I think he need not be more than an elderly watchman. I provide in the estimate for telephones from lock to lock, along the whole of the river, thus bringing the full distance into telephonic communication. Of course we want a man to attend to them, and report if anything is going wrong, and that can be done by the men in charge of the locks. Those in charge of the vessels navigating the river must open and shut the gates, as is done in the old country. Those who have gone along the English canals know that there is no person whatever in charge of the locks. I know of 6 miles of canal in Wales where there are fifteen locks without one man to be seen in charge. The canal men there, of course, are licensed boatmen, and provision should be made here for licensing the masters of boats; they should open the locks and pass through, leaving the locks ready for the next boat to enter. I hold that the crews of the boats should open and shut the gates, under the direction, for the time being, of the watchman. I think it is quite possible that in time the seventeen watchmen for whom I provide might be done away with altogether. In order to provide for repairs, I propose to put a good steamer on the river. I have estimated £10,000 for a really good steamer, and I propose to put a good crew on board, and also to have a blacksmith's forge on board for repairs. These men would pass from point to point of the river, attending any locks out of repair. If they found that any place was scoured out they could attend to it. They could have a punt, upon which they could load stone and fill in any washaways which occurred. That means that instead of scattering the men along the river they will be concentrated where they are wanted. I would also put on board the steamer a small sand-pump, because I think it is likely that after a flood we may find a certain amount of silting up in front of the locks. It would be of a very light nature, and easily removed. The existing lock at Bourke is very much silted up. Unfortunately, however, the lock is not in the most suitable position. It is under a bend of the river, where silting must necessarily take place. In selecting lock sites in the future, we shall have to be careful to always get our locks on the concave banks, where you obtain a scour rather than a deposit. In the estimate before the Committee I provide £6,000 for a telephone line and £10,000 for a maintenance steamer fitted with a small sand-pump. The estimated cost of interest and maintenance would be as follows:—

First cost, £530,000 at 3 per cent. ....	Annual charge.
Seventeen lock-keepers at £100... ..	£15,900
Crew of steamer, stores, and up-keep ...	1,700
Stone and material for repairs ... ..	2,000
	2,400
	£22,000

Equal to £36 13s. 4d. per mile; or, omitting interest, the maintenance would cost £6,100 per annum—say, £10 per mile. Thus £22,000 a year would practically be the cost of locking the Darling. That comes to £36 13s. 4d. per mile, or less than it costs to maintain a road.

- C. W. Darley. 68. *Mr. Watson.*] When you say per mile, you mean, of course, per river mile? Yes. Of course some of the main roads of the Colony cost as much as £50 per mile per annum without paying interest on the cost of bridges. Therefore, this would really be an extremely cheap piece of navigation—the cheapest in the world, I should say.
- 15 Mar., 1899. 69. With reference to the possible dispensing with the services of the lock-keepers, is there any provision for making the gates of the locks independent, as far as the shutting and closing is concerned? You cannot open them both together.
70. Would it not be possible for careless people to leave the sluices open, and thus allow a sluice of water to run through? It would require to be wilfully done.
71. That is what I allude to? The boatmen, of course, would require to be licensed. You would then be able to trace who did it, and suspend his license. That would make it worth his while to attend to his duty.
72. Would there be any means of locking the levers? Yes.

FRIDAY, 24 MARCH, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
The Hon. ANDREW GARRAN, LL.D.  
The Hon. WILLIAM JOSEPH TRICKETT.

WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.  
ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Cecil West Darley, Engineer-in-Chief for Public Works, Department of Public Works, sworn, and further examined:—

- C. W. Darley. 73. *Mr. Dick.*] If the proposed scheme is carried out, what will be the general effect upon the trade of the river? The first effect will be to open permanent instead of intermittent navigation. If the river is only locked as far as Menindie the tendency will be to act as a feeder to the railway at Bourke.
- 24 Mar., 1899. 74. Have you any statistics as to the number of months in a year the river is navigable below Menindie? Not below Menindie. The table I gave in my evidence the other day pretty well holds good. Soon after the navigation ceases above, it ceases below.
75. Will the construction of the locks have little or no effect on the water in the lower part of the river? No; it will not affect the lower part of the river at all.
76. In nearly all cases it is, I believe, proposed to place the weirs on the rock bars of the river? Yes; we have selected them as sites where they are available.
77. Would there be any necessity to remove those parts of the rock bars which are not utilised for weir construction? No, because the rising of the water will put navigation above the obstructions. There are a few rocks projecting into the river which may have to be removed. We have removed some rocks during the progress of snagging the river. At Yanda last month some dangerous rocks were blasted away. Of course, if there are any rocks over which there would be less than the minimum depth of water we require for navigation, they will be removed.
78. Do you know of any case in which there are two rock bars in close proximity to each other, one of which is utilised for a weir;—in cases of that kind, would it be necessary to move the rock bar below the weir in order to give permanent navigation? No; we have so selected the lock sites that the weirs will raise water over any bars above them.
79. What depth of water will you get on the average over the rock bars? The minimum depth would be 6 feet. In some cases, of course, the depth will be from 12 to 16 feet.
80. Do you know the Curranyalpa bar? Yes.
81. According to the official report, which has been placed before you, that bar extends a long distance, and it will be necessary to remove it? I get over that by two 10-foot lifts.
82. What position does the Curranyalpa bar occupy on the river? It is 187 miles below Bourke—just above Tilpa.
83. Will a weir be placed on that bar? There will be one on the bar, and another at Tilpa, which will throw the water back over the lower portions of the rocks.
84. Mr. Halligan, in an official report, states that the accumulation of snags on rock bars forms a far more dangerous obstruction to navigation than the bars themselves;—will the same difficulty be found in the construction of these works? No, because we are removing the snags. We have removed the snags from more than one-third of the river.
- 84½. Mr. Halligan states that every flood reproduces the difficulty of the accumulation of snags on the rock bars? Once they are out of the river, as we are clearing them now, they will not be seen again.
85. Do not the floods bring a large amount of snags into the river? A certain number come from the banks, but we have been burning off trees which are likely to fall in. That is a matter which is provided for in the ordinary maintenance of the river.
86. Mr. Gordon also makes some strong remarks about the instability of the watercourse at the bed of the river; he states that the course of the river is continually changing, and that new courses are being formed and old ones departed from;—is that likely to form any serious impediment in the way of the permanent maintenance of the weirs? No. There is no evidence really of any serious alteration in the course of the river. No doubt it has, in its past history, gone round some of the billabongs; but really the river may now be regarded as having a very stable bed. There is no evidence of a change taking place to any appreciable extent.
87. This is what Mr. Gordon says:

The present condition of the river is not stable; it is in a state of gradual, constant change. The banks on the hollow side of the numerous bends are increasing in their convexity. The process going on for long periods of time occasions the formation of the narrow necks between reaches of river separated by miles of distance if measured along its course, and eventually

eventually a breakage through these necks. As the process of the lengthening of the bend by this action is counteracted by the occasional breaking through of the necks, it is probable that the length of the course of the river is not materially altered, and that its régime may be considered generally permanent though locally unstable.

C. W. Darley.  
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Has full value been given to that statement? Yes. We have avoided all cases of putting locks near sharp bends. Compared with the Hunter I call the river a stable one. The changes in the river are very slow indeed. In any case we avoid putting any work near sharp bends.

88. Will the permanent increase in the height of the water tend to bring about an increase in these changes in the course of the river? No.

89. Would it be necessary to protect any of the weirs by means of long sided embankments, in order to prevent the water in times of flood forming a new course round them? That is provided for in the estimate. Of course it is necessary to protect the slopes.

90. But will there be any long protecting arms facing up the river? No.

91. Is it the practice to make arms of that kind in canalising rivers in India? I do not know of any parallel case.

92. I believe that a couple of dams have already been made along the course of the river? One lock has been constructed.

93. Have any dams been constructed? No.

94. Have any dams leading from the river into the lagoons been constructed? A dam was constructed at Menindie across the entrance to the lake, but not on the river.

95. Is it a fact that any dams which you know of as having been constructed along the river are now standing in a dry watercourse, the river having taken another course? I do not know of any case of a dam constructed in the river. I may point out that the dam at Menindie Lake was constructed under exceptional circumstances by tumbling sand bags into the channel during flood time. It was an emergency labour relief job. The work itself has stood. The idea was, in a rough way, to impound water in the lake. The water made another channel and got away.

96. Has an estimate been made of the loss of water by lockage, soakage, and evaporation? No.

97. Do you think that the water supply will be sufficient to make up for any loss in these directions? Yes, so long as there is no other leakage but that. Even during the late drought the river did not actually cease to flow. There was enough water passing down at the end of December to balance the lockage. If you divide the lockage over the area of the river above each lock you will find that it will take a great many lockages to lower the water half an inch.

98. Is it proposed to make any of the weirs oblique? No.

99. Is the practice of constructing oblique weirs unsatisfactory? There is nothing to be gained by making them oblique. They are more costly, longer, and more likely to cause erosion of the banks.

100. I find that Mr. Russell states that the evaporation in that part of the Colony cannot be taken at less than  $7\frac{1}{2}$  feet per annum in a dry season. The average seems to be about  $5\frac{1}{2}$  feet;—is that a matter to be seriously considered in connection with this scheme? I do not think so, because that evaporation was going on during the dry season, and although the river was very low, it did not actually stop running. It shows that there was sufficient water to allow for evaporation, soakage, and all the other losses which must take place.

101. Mr. Halligan, in his report, says:

In designing any large works for the improvement of the inland rivers it will, of course, be absolutely necessary to have information of the amount of evaporation and absorption taking place, and as the matter is not as simple as is generally supposed, and can only be obtained by some such proposal as Mr. Russell's—

Do you agree in the main with that, or do you think that the matter has been sufficiently investigated by your Department? Of course the more information one can get on every point the more valuable it is. But there is really no necessity to anticipate any trouble on account of evaporation.

102. What is the average lift of the locks? They run from 6 feet to 10 feet.

103. Mr. Gordon, in his report, states:

The weirs should offer as little obstruction as possible so that their effect on a flood should disappear as soon as may be. I have, therefore, fixed the lift of the locks generally at from 4 feet to 6 feet 6 inches only, both with the object just mentioned, and also in order to reduce the cost of the weirs which would increase in a greater ratio than their height.

? Of course, that increases the number very largely and creates this difficulty: that in some places you would be forced to put a lock on a difficult site—perhaps in a long pool with a bad bottom. That is why in one instance I have been forced to provide for two 10-foot lifts.

104. You find it necessary to increase the height of the lift in order to provide for sufficient water over the shallow bars? Yes.

105. Apart from that, would the increase in the number of weirs increase the total cost of the work? Yes.

106. Although they are much smaller? The difference between the high lift and the low lift is not very great.

107. Has the size of the locks been fixed in view of the dimensions of the vessels now trading on the river? Yes.

108. Would it materially decrease the cost of these works if they were made smaller? Not to any great extent. The locks have been kept large enough to pass all the steamers trading on the river, except one. There is only one paddle-boat which is a little too wide, and it can be easily altered to enable it to pass through.

109. Will the carrying out of this work raise the height of the floods to which the Darling will be subjected? Not to any appreciable extent. When a flood rises 8 or 9 feet over the weirs the weirs really do not raise the water any longer. Above that height you would not see the weirs; they would be drowned and lost sight of.

110. At what do you estimate the cost of the work per mile? £930 per mile.

111. In 1890 you reported an estimate of £1,200 per mile? Yes.

112. Is the difference due to a fall in the rate of charges and cost of material? No. We are working on a different principle; that was a very preliminary estimate. We had no surveys then, and that scheme was for putting the locks in bends, which means an immense amount of excavation.

113. Have you given any attention to the subject of irrigation as a subsidiary object of this scheme? No, I do not think there would be any large benefit to irrigation; in fact there is not enough water for it. The scheme will help the residents living along the river, who will not have quite so far to lift their water for domestic uses. Lately the water has become very bad. It is a marvel the people have not been poisoned in using it.

C. W. Darley. 114. In 1890 you stated that the weirs were to assist in conserving water for irrigation, which, in the near future, must be turned to profitable account all along our western rivers? The water can be used for homestead settlements. I do not think people will go to the expense of pumping water for the purposes of broad irrigation. It will help irrigation on a small scale of course.

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115. In what way is it proposed that the annual charge on the taxpayers for carrying out the work shall be met;—is it proposed to impose dues? That is a matter of policy.

116. Has the experience gained in the construction and subsequent use of the lock and weir at Bourke been of benefit to the Department? Yes.

117. I think you have stated that you would not, in the future, adopt the system in existence there? Yes; that experiment settles the question that the folding shutters are not suitable for the Darling.

118. In all cases, will the locks and weirs be separate from each other? In each case we shall keep them together. There will be fixed weirs instead of folding weirs. They are not to be constructed on the cut-off bend.

119. Will that form of construction result in lower cost? Yes; it cheapens the cost.

120. Mr. McKinney, in his report in 1893, states:

In 1874 a dam was made at a cost of £1,600 on the Tallywarka which runs through the Killara run; but when the flood of 1879 occurred a new channel, deeper than the old one, was cut by the water in one day and the water flowed past the dam. The other instance is that of a dam which was constructed some years ago to retain flood water in Menindie Lake. The dam is still standing in good condition, but a new channel at least as deep as the old one has been cut round one end of the dam.

? It was a little distance from it. There were a number of blind feeders from the river, and it was one of those which was cut through.

121. I suppose there is no danger of that kind to be apprehended from the construction of these weirs? No.

122. You have abandoned all idea of the so-called navigation or movable gates in these weirs? Yes; they are not satisfactory in a river like the Darling.

123. *Mr. Shepherd.*] Has the river been thoroughly snagged already? Some years ago part of it was snagged, but I do not think it was so thoroughly done as we have been doing it of late.

124. Is an estimate for snagging included in the cost of this work? No; there was a separate vote by Parliament passed some time ago for the snagging.

125. Would it be possible to raise any of the weirs sufficiently high to bring the water almost on a level with the banks? No.

126. I believe the river in some parts is very tortuous? Yes.

127. Has the desirability of cutting canals where the river is very tortuous been taken into consideration? No, not further than the original proposal to cut across some of the bends, so as to place locks in them.

128. It would be utterly impossible, under those circumstances, to think of irrigating the country naturally from the river? Quite impossible.

129. I suppose a rocky bottom is more favourable than a clayey bottom for the construction of weirs? Yes. But there are not many instances in which there is really good rock. It is a mixture of rock and clay, and will make a safe foundation to build upon.

130. I suppose the distance between the weirs varies on account of the nature of the river? Yes. Although the river has an average slope of 3 inches to the mile, the fall really takes place at the different bars.

131. Does the river vary very much in its fall? In one instance there are 58 miles between two locks, in another instance 54 miles, and in another 51 miles. Therefore, it is practically a level pool. During the dry season the river has been a series of level horizontal pools with no appreciable gradient. Then there is a sudden fall over the rocks, sometimes of 2 feet.

132. *Mr. Watson.*] Is there any proposal for the protection of the banks against erosion immediately above the weirs;—do you purpose protecting them by means of a fascine? Only where we anticipate erosion, and then we use stone.

133. Do you anticipate that there will be any considerable amount of erosion? Not above the weirs. There may be some below. We have provided for protection below. In my estimate for maintenance, I have put down a sum of money for extra stone.

134. Have you any knowledge of the means taken to prevent erosion in the Wimmera district of Victoria? I do not know of the work personally, but of course a great deal depends on the velocity of the river. The Darling happens to be of unusually low velocity. There are few rivers of such a length with such a small fall. Therefore the erosion will be very little.

135. You do not apprehend any great danger from it? No.

136. I believe you purpose making the locks 200 feet by 37 feet? Yes.

137. I notice that in 1890 you reported that there was an objection to a large-sized lock, because of the undesirability of losing water by lockage; you recommended that the locks be not more than 130 feet long by 33 feet? If we make them 200 feet long, they are long enough to take in a steamer attached to a barge.

138. I suppose they would go in end on? Yes.

139. Was the object of increasing the size to provide for two vessels coming in at one time? Yes. Another reason is that the existing lock is 200 feet by 37 feet, and it is desirable to have them all uniform.

140. If the loss of water by lockage is so great, would it not be wise to try and economise in that direction? You do not economise, because if the locks were smaller, you would require two lockings. It is better to have one locking 200 ft. long than two of 120 ft. long.

141. Then in view of the fact that a steamer is generally accompanied by a barge, you think it wise to increase the size of the lockage so that both can come in together? Yes.

142. If a steamer goes through without a barge, you will lose the same amount of water as you would if she were attached to a barge? Yes; but as a rule they have a barge with them.

143. In another paragraph of your report in 1890 you give reasons why it would be unwise to have a lock and weir together; one of those reasons states that if the river should be at all fresh it would be hardly safe for a vessel to approach the locks owing to the risk of being drawn against or over the weirs; do you think the danger you apprehend then exists now? Of course, there is a certain amount of danger where there is carelessness; but, in the design, I am keeping the weirs at the lower end of the locks instead of at the upper end, as far from the entrance as possible. I am also providing for a line of piles above the locks, so that the vessels can be tied to them.

144. Do you think the danger of vessels going against the weirs has been overcome by bringing the upper entrance to the locks above the weirs? The upper entrance to the locks will be 200 ft. above the weirs. C. W. Darley.
145. I suppose that even with a reasonable fresh the current would not be so strong that a steamer could not make back-way against it? No; and I have provided a line of mooring-piles so that steamers may be tied up when necessary. 24 Mar., 1899.
146. Do you think the benefit accruing to vessels from the construction of the locks would be sufficient to justify the imposition of tolls? I think so. In 1890 I expressed the opinion that toll should be levied on all downward traffic, not on upward traffic.
147. Why differentiate? To try and keep the trade in our own Colony to some extent.
148. When making that suggestion, did you attempt to estimate the amount which would probably be derived from a reasonable toll? No; it is a matter of policy. If we adopt the same policy with regard to our rivers as with regard to our roads there will be no toll. We spend £300,000 or £900,000 on the roads of the Colony without imposing any tolls, and it is a question whether we should not spend money on the rivers without imposing tolls.
149. It must be recognised that this is a road which leads away from a road? It was that which induced me to make the suggestion of a downward toll. I thought it would have a tendency to draw the trade to us rather than to send it away.
150. I suppose it would have to be a toll on freight rather than on the tonnage of a steamer, because, as she would pass one way as much as the other, that would practically become a half toll on each separate voyage? I take it that it would have to be a toll on the freight.
151. Do you think it would be possible to raise the height of the weirs sufficiently to impound water so as to allow a large quantity to be used for irrigation? No.
152. The water is available in flood time, if it can be conserved? Yes.
153. Do you think it would be possible to raise the weirs so as to provide for the impounding of water? I could not recommend that course.
154. What is the objection to it? If you raised the weirs that height, you would have to raise all the locks as well, which would make the work very costly.
155. I suppose there is no danger of the weirs, when raised to that extent, being carried away? Of course if you raise them the strength must be increased.
156. If you have a weir which keeps back water for a distance, say, of 40 miles, I should imagine a comparatively small increase in height would be sufficient to impound a very large body of water? Yes; but for irrigation purposes it would all have to be pumped, and I am inclined to think the people would not go to the expense of pumping, excepting for ordinary domestic purposes.
157. Is it not a fact that there are at present some irrigation schemes which depend on pumping—for instance, there is one at Wentworth? Yes; that is carried out by the Government, but you will not have them carried out by private people to any extent.
158. What about Mildura? The water is pumped there.
159. What height have they to raise the water there? I do not think more than 10 or 12 feet; but even that has not been very successful.
160. Do you take any interest in irrigation works apart from their engineering aspect? No.
161. What would be the cost of raising, say, 200,000 gallons of water an hour, 30 or 40 feet, assuming that you would not have to raise it far above the bank? It will cost about £2 to raise 1,000,000 gallons 100 feet.
162. Do you think we should be justified in considering this scheme from the standpoint of irrigation? I am afraid we have not got enough water in the river to encourage a very large amount of irrigation. There is no doubt that irrigation and navigation are so far antagonistic that you cannot store enough water in the river to go in for irrigation on a large scale.
163. There is no doubt that more than sufficient water comes down occasionally to fill large dams? Certainly, in flood time.
164. Supposing you increased the height of the weirs all round by 1 foot, do you think the loss by lockage would be such as to do away with the benefit of the river for irrigation purposes? During the late dry season there was not more than sufficient water to make sure of keeping up navigation.
165. I suppose that if you raised the weirs another foot, the loss by evaporation during a dry season would be no greater? It would only be increased by the increased area; but a foot of water is very little, indeed, for the purposes of irrigation.
166. The loss by lockage would be no greater? No.
167. So that, practically speaking, for every foot you raised the weirs, you would have that amount of water impounded for irrigation purposes? Yes, but it would not irrigate a very large area.
168. Assuming that weirs from 7 feet to 10 feet high are sufficient for the purposes of navigation, to what further height would it be safe to carry them? Two or 3 feet more. There is no reason why you should not make all the weirs 10-foot lifts, if necessary.
169. Would that increase the cost proportionately? It would certainly increase it.
170. Would it to any material extent increase the liability to flood of the people above the level? No.
171. It seems to me that a foot or two of water impounded there, when spread over miles of country, would mean but a fraction of an inch to that country? It would not appreciably effect the floods. When the water rose to such a height as to drown the weir, the flood-level would still be within the banks. So long as you drown your weir before the water is at the top of the banks, you are perfectly safe from doing harm.
172. It seems then that the only thing against the wisdom of utilising some of the water for irrigation is the improbability of people taking advantage of it? All that is taken will not be missed. There would not be enough for irrigation on a large scale.
173. Assuming it were possible to get people to take advantage of water conserved for irrigation purposes, would it be much more costly at a later stage to raise the weirs, and consequently the locks? They could be raised a little without incurring serious cost.
174. Could they be raised a few feet? Yes. Of course you would have to raise the lock-walls and gates as well.
175. Would not that entail the widening of the beds of the weirs? You would, very likely, have to increase the thickness of weirs.

C. W. Darley. 176. Could that be done without incurring a cost which would be out of proportion to the height to which the locks would be raised? It would be a rather troublesome thing to do once navigation was commenced. You could not get at the foundations very well.

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177. You have stated that there are one or two boats which are too wide to use the locks you propose to put in? There is only one too wide.

178. I presume that, with the certainty of water to a given depth, it will be possible for that boat now using paddles to use screws? The owner could take a little off the paddle-boxes or convert it into a stern-wheeler.

179. That means loss of power, does it not? No; many of the boats on the river are stern-wheelers.

180. I should imagine it would be much safer with a locked river to use screws? It is quite feasible with the depth of water which will be there to use screws.

181. I understand that you have stated that the shutter-weir at Bourke is a failure for the purposes of the Darling River? I do not say it is a failure; but it is not suitable for a river with such a small flow.

182. What expenditure would be required to change it into a fixed weir? It would not cost very much. Of course it would be necessary to raise the walls of the lock, and to put in new lock-gates. The foundations of the weir are in, and there would only be the upper portions to build.

183. Then it would not cost a very large amount to transform it into a fixed weir? I should say £4,000 would do it.

184. *Mr. Trickett.*] I think you explained on a former occasion that it would be more expensive to work movable than fixed weirs? Yes.

185. Would you require four or five men to look after them? It takes at least three men to operate them. I do not think it has been done with less than four men.

186. What is the general experience with regard to irrigation by pumping;—is it satisfactory? It is satisfactory where a number of people join together. I daresay it would work out well at Wentworth. Private individuals, however, will not, as a rule, go in for any large expense in pumping. I may mention that there are some windmills and some small steam pumps on the river now.

187. I suppose they are only for operating in a small way? Yes.

188. I suppose you know that Colonel Home gave it as his opinion that the river Darling was not a suitable one for irrigation operations? Yes.

189. Did he not say that it was impossible to get irrigation near the banks of the Darling excepting by pumping? Yes.

190. Did he not also express the opinion that the character of the soil there was not suitable for large tracts of irrigation? Yes.

191. Colonel Home states in his report on the river Darling:

The soil is described as light sandy loam, but it was noticed that wherever the top soil had been swept off by wind a hard red clay, with limestone nodules in places, was exposed to view, which would, of course, be very ill-suited to irrigation. A careful examination of the subsoil would, therefore, be necessary before the tract could be accepted as one on which an irrigation colony could be settled.

Do you agree with that opinion? Yes. From what I saw of the country it is patchy. You get very considerable variation in the soil and subsoil. There are, no doubt, patches where irrigation might be suitable, but a good deal of the land is very poor.

192. I believe that observation of that country shows that the after effect of saturating the soil with water is to cake it? Yes.

193. You appear to think that navigation and irrigation are hardly reconcilable in connection with a river which has so small a constant supply of water as the Darling? That is so.

194. I suppose you consider that the first use of such a river is for the purposes of trade? Yes.

195. I believe that legally the first claim on a river is for navigation purposes? Yes.

196. Therefore, in dealing with the question of irrigation, we should have to be very careful not to deprive the river of water to such an extent as to render it unnavigable? You would have to cease drawing for irrigation the moment you commenced to interfere with navigation.

197. To what height will the construction of the proposed locks raise the river above its ordinary level? The average rise right through the river will be about 8 feet 6 inches.

198. Will that be suitable for all purposes of navigation? Yes.

199. I notice that Mr. Hickson stated:

The locks, which will be placed in the river channel, will be 200 feet in length between the gates by 37 feet in width, the lifts varying from 7 to 10 feet; this will admit of the passage together of an average steamer and barge, and will be sufficiently wide to pass all but a very small percentage of the steamers now navigating this river.

Why are these large-steamers excluded by the scheme? Of the steamers actually trading on the river, there is only one which could not pass through the locks. Of course, if there was free navigation there, some of the larger boats running on the Murray might be excluded, but up to the present they have never come up the Darling.

200. We may take it from that that it is not likely there will be larger steamers running on the river? If it is intimated that the Government are going to put locks there, it will be at the owners risk if he builds steamers which will not go through them.

201. Has it been considered whether, in view of the growth of the trade, which will possibly follow on the river being made permanently navigable, larger steamers will not be required? Steamers of the size at present in use will do all the work required there for a very long time.

202. What is the tonnage of the boats running there now? Up to about 200 tons.

203. If it is likely that larger steamers will be required for the purposes of trade, it appears to be almost unwise to make the locks so narrow? Thirty-seven feet is not narrow for a lock. It will admit of a large steamer. The locks will be 200 feet long, and very few of the vessels at present in use are more than 100 feet.

204. You said on a former occasion that there was some danger in having the locks close to the weirs, because the current might set a vessel across a weir? Yes; the proposal of Mr. Gordon was to have the weirs at the top end of the locks. I propose to keep the weirs as far from the entrance to the locks as possible. They will be at least 200 feet from the entrance.

205. I suppose that in entering a lock, it is advisable to have as straight a run-in as possible? Yes, we obtain that by trying to keep all the locks in the straight portions of the river.

206.



206. Was not something said about putting them in bends? That was the original scheme. When C. W. Darley. Mr. Williams went up about 1890 he recommended that the locks should be put across bends of the river. He reported that the soil would be perfectly sound for excavation purposes. There are instances in which we should save 2 or 3 miles of navigation by following out that system. When I came to examine the river closely, however, I found there were not many instances in which we should get suitable places for the construction of the weirs in bends. We could not take advantage of the rock bars; and whilst we might have had suitable places in the bends of the river in which to put the locks, there would be no suitable places around the bends for the construction of the weirs. Therefore, I was forced to stick to the rock bars. 24 Mar., 1899.
207. I suppose the weirs will be below the top of the river banks? Yes, well below. Sixteen feet will be the maximum height to the top of any weir. At those places the banks are about 40 feet high.
208. How will you fit the weirs into the pliable banks so as to prevent erosion;—will the side structure have to go a long way into the banks? We shall go in until we get to solid ground, and then a long concrete wing will be thrown out.
209. Seeing that the weirs will be a considerable distance below the tops of the river banks, would not the wings have to be carried up very high? The top of the wing walls would only be from 9 to 11 feet over the top of the weirs. When the water rises to the top of that, it will pass over, and will make the ordinary bank of the river unobstructed, as it is now.
210. Do you not think that the cost of snagging the river is an item which should be included in dealing with an undertaking for making the river navigable. Is it not likely to be a considerable amount? Once the snagging now in hand is finished, the ordinary maintenance men will keep the river clear. The snagging is being done apart from the locking. It is in progress now, and will probably be finished before the locking starts.
211. Is it a very expensive item? About £97,000 has been spent to date on snagging the river between Walgett and Wentworth.
212. If the work is carried out, will trees and snags get into the river? Not to any serious extent; the banks are now pretty well cleared of timber. The snags which have been dealt with lately have been the accumulation of years.
213. What is the practice in other countries with regard to charging tolls on rivers? There are many large water-ways which are free from tolls. The canals in England are mostly held by private companies who keep them in order to move what is called slow freight. I do not think any charge is made in America, where the canals have been formed by the State.
214. If this work is carried out, will not a great deal of the trade of New South Wales go down the river to South Australia? It does now when the river is up. But if the work is only carried out as far as Menindie, there is no doubt that the trade will largely work up to Bourke.
215. What will happen if the river is made navigable right down? The trade will largely go round to Adelaide and Echuca.
216. Do you not think that under such circumstances we should charge something in the way of tolls? If it were my property I certainly should make a charge.
217. How does the cost of irrigation by pumping from a river compare with the cost of irrigation by gravitation or from one of the bores in existence in the colony? It would be very much greater.
218. Is the Darling River of such a continuous height that a movable weir is of as great advantage as a fixed one? Less than half its time the river is open for navigation. To obtain permanent and constant navigation the steamboat owners cannot object to go through the locks; by so doing they will keep their boats in constant use.
219. Although in some rivers a movable weir may be of great advantage, the river Darling does not commend itself as one of those rivers? No.
220. I suppose a fixed weir in the absence of any unusual damage will last a long time? It will be a permanent work. A weir itself would last practically for ever. It is only the erosion of the banks which has to be watched.
221. *Dr. Garran.*] How much water do you estimate is retained in each lock when it is full? In a 10-foot weir you will lose 10 feet of lockage. The amount retained will amount to 74,000 cubic feet.
222. Every time a boat passes that amount of water falls in level from one lock to the other? Yes.
223. Every level is really supplied from the level above it? Yes.
224. Therefore, the ultimate storage for the whole scheme is the water above the first lock? Yes.
225. At present is there enough water above the lock at Bourke to keep trade going up and down the river? At present there is a fresh passing down the river. Before the fresh came, there was, I think, nearly enough to keep the trade going.
226. The moment the new system is established, you will have more steamers on the river than you have now? Yes.
227. So that there will be a pretty active trade going on and a steady descent of the water? The worst that would happen would be in a long dry season, when the river would be lowered a few inches.
228. Would the upper portions be lowered first? No, it would be lowered all over proportionately.
229. Still the upper portion would get dry first? Yes.
230. Supposing the scheme had been completed and in work during the last four dry years, do you think the navigation would have been kept up under such circumstances? I do. We have had two or three small freshes down the river even this year which would have set the river going again. It is only during the last two months that the river has gone down to an abnormally low level.
231. In any case, at the worst, the navigation in the lower reaches of the river would have been maintained? Yes. I saw the river at its worst, and I think navigation would have been maintained the whole time.
232. We should have been able to get up as far as Wilcannia in any case? I think in the late drought you could have kept the river open to Bourke.
233. What is the greatest length between any two locks? Fifty-eight miles. The shortest is 17 miles.
234. How deep do you propose to sink the weirs into the rock? It depends on the quality of the rock.
235. How deep was the one that has been built sunk into the rock? One portion got off the rock altogether. I think it is 9 feet below the bed.
236. Is that enough to prevent water getting underneath? Yes.
237. Is stone abundant on the side of the river? Not abundant; but on an average we can get it within 10 miles of every lock.

- C. W. Darley. 238. It is mostly sandstone? It is a species of altered sandstone.  
 239. Metamorphic sandstone? Yes.  
 24 Mar., 1899. 240. If we want to make this a remunerative work, I suppose we ought to obtain enough to pay interest on the loan, and the cost of up-keep? Yes.  
 241. I suppose that would take fully 4 per cent.? A little over.  
 242. Four per cent. on £500,000 would be £20,000? I have taken it as £22,000.  
 243. Do you think the present traffic could bear a charge of £22,000 a year? The present traffic is very small.  
 244. Could we, by licensing steamers, raise such a revenue as that? Not for some time to come.  
 245. I have seen it stated that in a good year the trade of the river is worth to South Australia over £1,000,000 sterling;—do you think a trade of that character would bear a charge of £22,000 a year? It would, certainly.  
 246. So that if that amount is not an over-estimate, it would be possible to raise a revenue which would pay the cost of this large undertaking? Yes.  
 247. Did you, during your visit, see Chinamen's gardens, for which water was raised from the river? Yes.  
 248. Was it raised by windmill? Some people raise the water by windmill, and some by means of small Tangye pumps. Different homesteads and stations have a little irrigation around them.  
 249. Are there many windmill pumps on the banks? A good many, as well as small steam pumps.  
 250. I gather that you think gardens and orchards might be irrigated? Yes.  
 251. And perhaps a lucerne paddock or two? Yes.  
 252. But not large grazing areas? No.  
 253. If any attempt were made to carry out irrigation on a large scale, would navigation suffer? Yes.  
 254. And in a dry year we want the water most for trading purposes? Yes.  
 255. There would not be enough for the double demand on the water in a bad season? No.  
 256. So that either irrigation or navigation must go to the wall? Yes.  
 257. If we have large irrigation colonies there, they will have to be closed if the river is to be kept open for navigation? Yes.  
 258. If the irrigation colonies are to be served, the steamers, I suppose, could not run? That is so.  
 259. I suppose the reasonable use of the water of the river for the purposes of navigation would be to keep your locks always full? Yes.  
 260. And the reasonable use of water for irrigation purposes would be to keep the farms always healthy and in good condition? Yes.  
 261. You think there would not be enough in a dry year to do both? Not if irrigation were carried on on a large scale. It would be impossible to grow cereals in large crops by means of irrigation from the river.

TUESDAY, 2 MAY, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
 The Hon. ANDREW GARRAN, LL.D.

The Hon. WILLIAM JOSEPH TRICKETT.  
 WILLIAM THOMAS DICK, Esq.

JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Cecil West Darley, Engineer-in-Chief for Public Works, Department of Public Works, sworn, and further examined:—

- C. W. Darley. 262. *Chairman.*] Have you prepared a model of the proposed lock and weir? Yes. I have a model prepared for the Committee illustrating the type of lock which I propose. [*The witness described in detail the model of lock and the mode of working.*]  
 2 May, 1899. 263. *Dr. Garran.*] Is there any river liable to floods which gives an exact example of what you propose to construct here? I know of no canalized river in which there is so high a flood as in ours.  
 264. Even with lower floods, are there several rivers where, in flood-time, the water would cover all the works? Yes.  
 265. Do the works in those rivers stand the floods? Yes.  
 266. Do they leave no silt? In some cases in America there is a large amount of silt as in the Mississippi and Ohio. The water is very highly charged with silt, and to an extent unknown in this country.  
 267. Then, practically, the works on those American rivers have stood every test which the works here are likely to be subjected to? I think so.  
 268. What protection is there against the river going a mile out of its course in a high flood, and giving the go-by altogether to these works? The river does not deviate from its course, except in one or two cases, and then it is only the top water-level which escapes. The whole river is not diverted, and it does not leave its bed. At Talyawalka the flood-water finds an escape, and does not return to the river for a good many miles. It passes through the back country, but that is only the top of the high flood.  
 269. *Mr. Watson.*] Does the main body of the water still continue in the river-bed? Yes; the main river does not alter its course.  
 270. Have there been no instances within our knowledge where the main river has changed its course? I have no knowledge of any instances; there may be small places where a cut-off has taken place.  
 271. I have read that in America the rivers occasionally change their course? I know there are some cases in the Darling where a short bend has been cut off, and what are now known as islands have been formed.  
 272. Do you think you have provided against that in the selection of long reaches? I have selected only straight reaches for the locks. I have kept them away from the sharp bends.  
 273. *Mr. Trickett.*] How much higher is the weir than the sill at the upper end of the lock? The minimum depth of water is 6 feet. According to the drop which takes place at the weir, which varies from 6 feet to 10 feet, there will be that extra depth at the lower end of the lock—that is, there will be from 12 to 16 feet of water at the lower end. 274.

274. So that a vessel coming in at the upper end of the lock will have a minimum depth of 6 feet of water to float in, and the water at the lower end of the sill will vary, according to the height of the drop, from 12 to 16 feet? Yes. C. W. Darley.  
2 May, 1899.

275. So that once a vessel is in the lock, and the lower gates are open, the water will subside, and she will float out at the level of the river at the lower end? Yes.

276. When a vessel is coming up the stream will the process be reversed, so that directly she enters the lock at the lower end the water will rise to a sufficient height to take her over the sill, and enable her to pass into the stream? Yes. On the last occasion you asked me to collect some information with respect to similar work on rivers in other countries, and as to tolls and charges. I will now read some information which I have collected on the subject. It is as follows:—

EXTRACTS from a Report by Mr. L. F. Vernon Harcourt, M.A., M. Inst. C.E., on the benefits to be derived from the improvement of water-ways and ship canals, for the World's Columbian Water Commerce Congress, 1893.

THE greatest opportunities for inland navigation occur in the interior of large continents, where the sea-board is distant, and small in proportion to the area of the country, and where often the rivers are large, and more or less navigable for long distances inland. The Rhine, the Danube, and the Volga are instances of such rivers in Europe, and the St. Lawrence, the Mississippi, the Amazon, and La Plata in America. These rivers, owing to the vast areas which they drain, possess not merely a larger channel, but also a more regular discharge; and consequently a moderate amount of improvement in places suffices to render them navigable for very great distances, and they form natural highways for the trade of the country. The economy, moreover, of transporting goods in bulk by water in such cases is fully realised on account of the long distances that can be traversed.

A remarkable instance of the benefits to be gained by even a small increase in depth of a river navigation, at a long distance from the sea-coast, is afforded by the canalization of the river Main from its junction with the Rhine up to Frankfort. Till these works were carried out, in 1883-86, the navigable depth of the river in dry weather was liable to fall below 3 feet; and the traffic by water up to Frankfort did not exceed 12,000 tons in the year. As soon, however, as the minimum navigable depth was increased by canalization and dredging to 6½ feet, enabling vessels of from 700 to 1,000 tons to get up to Frankfort, the traffic rose to 300,000 tons. The traffic last year reached 709,000 tons.

The moderate minimum depth of 6½ feet has been adopted as the standard depth along the main lines of inland navigation in France, and has proved capable of accommodating a large traffic; whilst on the Rhine, a similar depth has enabled Mainz, Frankfort, and Mannheim to acquire the importance of seaports, though situated inland, at a long distance from the ocean.

The conditions favourable to the development of inland navigation are a large area of country at a distance from the sea-coast, a considerable traffic in bulky goods, the existence of large rivers stretching far into the interior, and large inland lakes or seas, capable of connection by water with the ocean. All these conditions are found in North America; and if France, with her extensive sea-board on the north, west, and south, has found it expedient, notwithstanding her network of railways, to improve, extend, and throw open her waterways, it is evident that a similar policy is far more important for America, where the distances from the ocean are so vast, the rivers so large, and the inland lakes so extensive.

In France inland navigation is encouraged and developed by the State, and made free of tolls like the roads.

Moreover, whilst the construction of an extensive system of artificial water-ways at the public expense may be open to question, there can be no doubt that river navigation, in a country like America, should be carried as far into the interior as practicable, especially as in large rivers moderate local improvements often open up a considerable length of navigation. Whilst the construction of local canals might be sometimes left to private enterprise, the improvement of the main water-ways should be effected by the State; for the Government can more easily raise the necessary funds, it alone can undertake a comprehensive scheme of improvement, extending over long distances, and occupying a considerable period in execution, it looks to the interests of the community at large, and not to local advantages, and it alone derives the indirect benefits resulting from a general development of the resources of the country.

Conclusions.—The value of water-ways for traffic in bulky goods, especially in the interior of vast continents, has been fully established, and the care of the main water-ways should devolve on the State, which alone can undertake a comprehensive scheme, and which alone reaps the indirect benefits of the increase in the trade of the country. Only the main lines of inland navigation should be improved at the public expense.

Works for connecting river navigations, or for extending them further into the interior, and the development of main lines of inland navigation, are specially incumbent upon the State as constituting national benefits.

#### EXTRACTS FROM "WATERWAYS AND WATER TRANSPORT."

By J. Stephen Jeans, M.R.I.F.S.S., 1890.

##### English Canal System.

About the middle of the last century, the cost of goods by road, between Manchester and Liverpool, was 40s. per ton; whilst, by the Mersey and Irwell route, the water-rate was 12s. per ton. After the opening of the Bridgewater Canal the cost was reduced to 6s. per ton, and a better service was given than either of the previous routes had afforded. (Fol. 40.)

So far as mere mileage is concerned, the waterways of England, including canals and canalized rivers, are really of very considerable, if not sufficient extent, as the following figures show:—

Owned by public trusts.....	927½ miles.
Independent canals.....	1,445½ "
Guaranteed and owned by railways.....	1,333 "
Derelict.....	118½ "
Ownership not known.....	36½ " (Fol. 54.)

##### Waterways of France.

According to an interesting statement issued by the French Minister of Public Works in 1880, the length of the canals then constructed in France was 2,882 miles, of which 2,248 miles were described as principal lines, and cost about £10,300 per mile, while 634 miles were secondary lines, and cost £7,200 per mile. The total amount expended on canals of both categories was about 33 millions sterling.

There were, besides, 4,598 miles of rivers which had been adapted, by canalization or otherwise, for purposes of navigation, at a total cost of about 11½ millions sterling—£2,500 per mile.

On both canals and rivers the total amount expended had been over 44 millions sterling. (Fols. 97-98.)

##### Waterways of Germany.

It is the practice in Germany for the Government to maintain the inland navigations, charging only 6s. for lockage. This allows of very cheap transport, so much so, indeed, that it is stated that between Hamburg and Berlin, notwithstanding that the railway rates are extremely low, all heavy traffic is carried by barges or steamers. (Fol. 132.)

In the year 1878, it was announced that over 1,045 miles of new canal navigation had been ordered throughout Germany, in addition to the 1,289 miles then open, and the 4,925 miles of navigable rivers available. This fact sufficiently indicates the great importance that is attached in Germany to adequate water communication, and it is all the more notable that very few countries are possessed of equally cheap railway transport. (Fol. 133.)

Waterways

C. W. Darley.

*Waterways of Belgium.*

2 May, 1899.

The total length of the waterways of Belgium in 1885 was 1,634 kilometres, or 1,013 miles. (Fol. 134.)

Up to the year 1863, the Dutch Government levied a tax upon all vessels using the Scheldt. This tax was found to be so onerous, that treaties were entered into in that year by which, in consideration of certain specific payments made by the various countries concerned in the navigation of the river, the King of Holland renounced his right to levy such duties.\* Since then the trade of Antwerp has advanced by "leaps and bounds."

\* The sum total of these amounts was 17,141,640 francs or £685,666,—of which more than one-half was paid by Great Britain, and fully one-sixth by the United States. (Fol. 142.)

*Waterways of Canada.*

It has been found necessary in Canada with a view to meeting the competition on the Erie Canal route, to reduce the canal tolls and harbour dues. Prior to 1884, the rate of tolls on the grain shipped by way of the Welland Canal was 20 cents per ton, which allowed a vessel to pass through the St. Lawrence Canal without additional payment; but, as the tolls on the Erie Canal were abolished in 1883, it became increasingly difficult for the Montreal route to compete with that *via* the enfranchised Erie Canal to New York. A remission of one-half of the tolls on grain has, therefore, since 1884 been allowed on the Welland Canal, so that the present rate is only 10 cents, or 5d. per ton. Other concessions have been made in the interval, until now the rate is only 2 cents per ton on grain passing eastwards to Canadian parts. This had the effect of greatly stimulating the canal traffic. (Fol. 223.)

*Cost of Water and Land Transport.*

Mr. Conder has pointed out that a feature of prime importance in which the economy of transport by canal differs from that by railway, is the incidence of the expenses of maintenance. The cost of railway maintenance, as soon as anything like an adequate amount of traffic is brought on a line, is remarkably steady, rising and falling, to a certain extent, with the increase or diminution of the volume of transport. On canals, the fixed expenses demand, in any case, a certain cost, and this cost is very little increased by a large increase of traffic. The annual cost of maintenance in the Suez Canal, was actually less from 1876 to 1881 than it has been from 1871 to 1876. But the traffic had considerably more than doubled, so that the cost of maintenance per ton, per mile, fell from 0.35d. to 0.134d.—Fol. 389.)

Among the many current questions relative to transport, none is more urgent than that of how far the waterways of a country can be profitably and conveniently utilised in competition with railways. In continental countries—and especially in France, Germany, Belgium, and Holland—the greatest possible importance is attached to having the command of cheap and adequate water transport. The fact is that the cost of water transport, under the most suitable conditions, is almost ridiculously low. It has been proved in Belgium, in France, and in Germany, to be under one-tenth of a penny per ton, per mile, whereas the cost of railway transport is seldom less than double that amount. But, of course, much necessarily depends upon the local conditions, and upon the means of transport employed. (Fol. 472).

## EXTRACTS FROM "CANALS AND IRRIGATION IN FOREIGN COUNTRIES."

(Report from the Consuls of the United States, in answer to Circulars from the Department of State, dated 1891.)

*Canals in Canada.**Welland and St. Lawrence Canals.*

The canals are built, repaired and controlled by the Government, which by its system of tolls encourages vessels to use the entire water route from the lake to the ocean. Vessels going down through the Welland Canal receive a receipt for the toll paid, which is taken up by the Government, and 90 per cent. of the money returned to the vessel upon satisfactory evidence being furnished that the grain upon which the toll was paid has passed through the St. Lawrence Canal, and out of the country. If the grain leaves the water route for consumption or transportation the vessel loses the advantage of the return of the toll. (Fol. 16).

*Canals in Belgium.*

## Length and Ownership.

In 1885 the total length of all the canals in Belgium was 1,651 kilometres, 600 metres. Part of them being the property of the Government, which has built and maintains them; on these canals navigation is generally free. Some others belong to the province or to the commune and the rest to large companies. In every case these companies are chartered by the Government, which also gives subsidies for the construction and maintaining of them. (Fol. 82.)

It seems almost necessary to remark . . . that Belgium takes the lead on the Continent of Europe in establishing these artificial waterways, and that to that fact is owing, in a great measure, her commercial prosperity. Nothing contributes so much to the commerce of any country as rapid, easy, and cheap means of communication, and the experience of the Belgians has been like that of the United States, that canals have done more than anything else in the last fifty years to cheapen transportation. (Fol. 83.)

*Canals in Germany.*

All the canals in the Prussian Kingdom belong to the Government, and are managed by the Ministry of Public Works. They were constructed entirely for the benefit of the people, and have never been an object of speculation. The traffic is immense; the rates of transportation very low. The canals are administered with great care, and with the best possible pecuniary advantage to the Government. (Fols. 133-134.)

277. *Dr. Garran.*] Do you know the largest sized ships which go through the locks on the Manchester Canal? I do not recollect, but they are large ocean-going steamers.

278. All the extracts you have read point to the familiar statement that water carriage is immensely cheaper than railroad carriage? Yes.

279. Have you seen the recent statement that the Erie Canal Company has admitted that it cannot compete with the present railway freights from the Hudson to Buffalo? I cannot reconcile that statement, because there is no charge on the Erie Canal.

280. It was stated in the American letter in the *Sydney Morning Herald*, three or four weeks ago, that the alternative before the Canal Company now was either to admit defeat by the railways, or to spend something like £20,000,000 in reconstructing the canal, so as to enable ocean-going ships to pass from the Hudson to the Lakes without breaking bulk? I have not seen the statement, but I think I can understand why that is so. The railways take up the grain in the country close to the farms, and convey it to the ships on the seaboard. If the grain is carried by the canal it has to be transhipped into the vessels in the canal, and it is afterwards transferred to ocean-going vessels.

281. If that statement be correct, is it not the first remarkable instance in which a canal has been beaten by a railway? It is the only case I know of.

282. The saving of time by a railway would also be part of the gain? Of course it would save at least one handling.

283. Is there any such possible competition between the river and a railway in the case of the Darling? It is not a case of competition at all. The river would be a feeder to our railways.

284. Supposing the Government were to make a railway down the valley of the Darling from Bourke to C. W. Darley. Wentworth, would it be possible to carry wool as cheaply by a railway made at very low cost as it would be to carry it down the river if locked? It would be quite impossible to carry it so cheaply by railway. 2 May, 1899.

285. So that if we construct these locks we know that we cannot possibly be outdone by a railway hereafter? Certainly not in the carriage of wool. The river would carry it cheaper.

286. Of course, a railway could be made very cheaply down that valley? It would cost two or three times more than opening up the navigation. The latter would cost only £930 a mile, whereas a railway could not be made under £2,000 per mile.

287. And the working expenses of the railway would be greater? Yes.

288. Therefore, as far as we can see, there is no such thing as serious competition possible? No.

289. The railway would be much shorter than the river navigation? Yes.

290. The river mileage would be ten times more than the railway mileage? About two and a quarter times; but the cost of working the railway would be very much more than working the river.

291. Would there not be a saving of time by using the railway? That is not much of a consideration in the case of wool. It is not of sufficient importance to cover the extra charge.

292. Are canals in England looking up as against the competition of the railways? Generally speaking, canals in England are improving properties.

293. Were not a great many canals bought up by the railway companies? Yes; the London and North-Western bought up a long series of canals and worked them. Heavy goods, such as crockery from Staffordshire, with respect to which there is no hurry to get to market, are moved by water at a lower rate than by railway.

294. *Chairman.*] In the *Contemporary Review*, April, 1883, General Hamley, who is an authority on these subjects, wrote:—

Fifteen years ago it would scarcely have been disputed that canals must give way to railways. The teaching of to-day is, however, quite different. There is a widespread belief that inland water-carriage may compete successfully with railways, and a very general desire to bring the former mode of transit into more extensive use.

Has a further experience of fifteen years since that date borne out the opinions then expressed? Yes.

295. So that the question of railways competing with water carriage has been satisfactorily settled in favour of water carriage? Yes; except in the case mentioned by Dr. Garran, which I did not see before. But I think there are special reasons for that.

296. In connection with these canals, we can understand that a canal can compete with a railway running alongside it;—in your opinion, will the locking of the Darling take away from the traffic of our railways or add to it? That is very much a traffic question as to how the trade will flow. We know that in the special case of the Darling very large interests in many of the stations along the river are held in Melbourne, and those people naturally like the goods to be brought down there. When they can, I think they will take the goods down to Echuca away from our railways; but no doubt a great quantity of goods will go to Bourke, or to any other point where we have a railway touching the river. If we had a railway touching the river lower down it would very likely take most of the traffic. Permanent navigation to Bourke would no doubt bring a large quantity of traffic to Bourke which now goes down the river.

297. Is this scheme more for navigation than in the interests of irrigation? I look upon it entirely as a matter of navigation. Irrigation is very secondary to that.

298. A former Committee which sat in 1896 and which considered this question of locking the Darling reported as follows:—

Before any general scheme for locking the Darling is adopted, ample time should be afforded to test the effect of the construction of the Bourke weir upon the river channel both above and below, and to ascertain if movable shutters become unworkable after long submersion.

Has the effect of the weir already erected been carefully watched? Yes.

299. I asked the question because, in view of an inspection of the locality, we have made inquiries, and I have here a telegram from a gentleman in the district, which says:

Cannot quote price, river being unnavigable for anything larger than a canoe. Not 3 inches water over sill of weir. Lock partially sanded up.

What does that prove, in your opinion? The shutters are down now, and I left orders that they should be kept down. I was anxious that the Committee should see the process of putting them up. When the Committee goes up to Bourke, I propose to ask them to go to the lock and see the work of putting them up. It will not be done under such favourable circumstances now as if there were a little more water in the river. However, the Committee can see the process. With regard to the silting up of the lock, I anticipated that that would take place. The lock, unfortunately, is situated close below a sharp bend in the river. The lock is put on the convex bank instead of the concave bank, and there is an eddy in front of the lock, and there will always be trouble from silt in that case. It would have been better if the lock had been placed on the other bank, where it would have had the advantage of a scour. Where it is situated at present there will always be trouble from silting up.

300. Colonel Home in his report, said:

The experimental weir and lock lately completed at Bourke has stood the test of a flood well, and has proved that such works can be constructed at a reasonable cost.

It would appear from that that he had an idea that the work was a success? He saw it under most favourable circumstances, when there was a good flow of water, and when the water was passing over the shutters. He did not see it when it was very dry. Everything was then satisfactory, but, since, we have had the experience of a very great drought, and we see the other side of the picture.

301. Then your Department, having seen it under conditions of flood and drought, have come to the conclusion that a movable weir would be simply waste of money? I do not think it is suitable for a river where the circumstances are so extreme as in the Darling.

302. *Mr. Watson.*] With reference to the Lake Erie Canal, do you know whether that has to compete with canals which connect with the St. Lawrence? Yes; I read about that just now. That is an American-owned canal. The Canadian canals have lowered the rates to compete with it, so as to induce grain to pass through Canada and out through the St. Lawrence.

303. Do ocean-going vessels navigate the canals upon the St. Lawrence? Ocean-going ships do go up to the lakes.

- C: W. Darley. 304. Vessels that will take cargoes to Liverpool direct? Yes.
- 2 May, 1899. 305. Are there whale-backed vessels which carry wheat in bulk right from Chicago to Liverpool? Yes; they pass through the lakes to Montreal, and out through the St. Lawrence.
306. Is it possible that the failure of the Erie Canal is due to the fact that ocean-going vessels can take another route and get to the ocean? No doubt that must tend to injure the interests of the Erie Canal.
307. In the American letter of the *Sydney Morning Herald*, to which Dr. Garran has referred, I saw a statement to the effect that, while the traffic on the Erie Canal had actually declined during the last ten years, the traffic on the railways running in competition with the canal had increased by about 90 per cent;—does not that look as if the railways were successfully competing against a shallow inland canal? Yes; it is a canal connecting the lakes with the ocean, and it now really does not serve the purpose. It requires a deeper canal to compete with the railways, so as to carry ocean-going vessels into the lakes.
308. You do not think it necessary to make any such provision here? No, the case is very different. First of all, ocean-going vessels cannot use the Darling.
309. Is it not possible for us to do the same with the railways as the Americans have done? Yes.
310. So that it might be possible for railways here to compete against a shallow canal? It is only possible under the very special circumstances which exist there.
311. There is one feature in America which we shall not have here—they have such a large volume of traffic that they can carry goods by railway much cheaper than we can? There is an immense volume of grain traffic there.
312. We are not likely to have that? No, our heaviest traffic will be wool and provisions.
313. Commercial men in America place very great value upon getting to market quickly, so as to save interest on capital, &c., and they thus prefer railway carriage, even at a greater cost;—might that motive operate here? I do not think so. It is a most remote possibility that a railway will ever be made down the Darling, especially if there is any navigation open. The river would then really be competing simply with very slow road traffic, and it would be a feeder to the railways. At present wool is slowly brought by teams to the railway. Owing to the late dry season I am told that last year's clip is still in some of the stations. From Momba Station, near Wilcannia, they are sending a little wool down to Broken Hill by camel teams, but it would take them some years to get the whole of it carried in that way. If they had water-carriage they would have the wool in England by this time.
314. Taking wool as against wheat or ores, bulk for bulk, wool is more valuable;—would there not be greater inducement to take advantage of quick transit for wool than for the other articles? Everything else being equal, it would, but it would only be the difference of a few days in bringing it to the railway.
315. Would there not be another handling; the barges which would take wool down the Darling would discharge at Echuca or Morgan;—would not that mean another handling, as compared with the railway, in getting to market? Yes.
316. *Mr. Trickett.*] Colonel Home, I believe, did not take a very favourable view of the proposal to deal with the Darling River in this way;—were not the two rivers which he recommended for treatment the Murray and the Murrumbidgee? That was for irrigation.
317. Does he not also point out in his report—

As a means of cheap carriage through a sparsely-populated country where a railway would not pay, it has its value, but this is discounted by the frequent stoppages of navigation which are caused by a want of water in the river, and at times last for long periods. The experimental weir and lock lately completed at Bourke has stood the test of a flood well, and has proved that such works can be constructed at a reasonable cost, but the difficulty is to get any return for the outlay in a country so thinly populated.

;—do you share that view? Yes.

318. I see by your evidence that you contemplated making a charge by way of tolls for this work? I think I said it might be done, but that it was a matter of policy for the Government to consider.

319. Do you still think it would be a fair thing to carry out that proposal? Yes; it is my personal view that it would be desirable to put on a toll to recoup the outlay. There is no doubt that the river would be a feeder to the other colonies.

320. The construction of this work, instead of improving the carriage on our railways, would in all probability take the trade to other colonies to a large extent? I think it will help our railways to some extent. Of course, it will enable goods to be carried up easily to Bourke, and no doubt some wool will go up to Bourke. I do not think our railways will lose any trade, but by putting on a downward toll we might catch more of the trade. The wool is simply held by the stations until there is water enough to run it down the river.

321. If the river were always navigable, owing to locks and weirs, they would not keep the wool on the station; they would send it away at once? Yes.

322. Therefore, does not that show that if we are going to incur an enormous expenditure of this kind to improve the river to take our trade away, we should put on some charge by way of self-defence? We should be benefiting our own citizens by increasing the outlet for their goods, and we should increase the value of our own property. We should get better rents for the land.

323. Would it not also benefit the other colonies by sending goods for shipment from their ports? It will give them more constant access to their ports, but the traffic goes that way already. Our people have to wait, and suffer the loss of interest on their money by holding their wool until the river is open.

324. Have not most of the canal works to which you have referred been works which have been constructed as a means of transit from one important centre to another in the country which constructed the works? Yes.

325. There have not been the various conflicting interests which, unfortunately, exist in the case of a work of this kind in this Colony? In the case of the Rhine, the trade passes from Germany into Holland. It is taken to Amsterdam and Rotterdam. That is a somewhat similar case to ours, yet the Germans have spent enormous sums in improving the Rhine and its tributaries, so that the trade may pass into another country.

326. Have you made any estimate as to the possible revenue which could be raised from a toll on the river? No; I have left that to merchants and others who use the river. Firms like Rich & Co. could give more valuable information.

327. Some years ago when this question was considered, Mr. Kirkcaldie, one of the present Railway Commissioners, seemed to think that it would produce a very large revenue? That is a point on which those who have considered the question of traffic could give better opinions than I could give.

328. Is this scheme submitted simply as a canal scheme, or as one likely to be of a profitable character to the country;—is it merely devised as a means of convenience rather than as a means of profit? As a means of profit more or less indirect. It would be a benefit to the State generally. C. W. Darley.  
2 May, 1899.
329. The figures which you have quoted seem to show that the estimated cost of this work is much smaller in proportion than the cost of similar works carried out in other countries? Yes; I cannot find any record of navigation being opened over such a length of river at such a low cost as in this case.
330. What is the cause of that? The low fall in the river, and there are so few locks in proportion to the length. For 570 miles there are comparatively few locks,—the fall of the river only averaging 3 inches to the mile. The case is unique in that respect.
331. I suppose that the river being so low generally favours the construction of locks and weirs? That enables us to carry out the work much cheaper. There is very little trouble in dealing with the water in the dry seasons.
332. During the construction of the weir below Bourke, had it to stand any severe tests? One or two floods passed over the works during construction, but there was no harm done of any consequence.
333. That is not likely to be a serious item? No; but if you pick a very flooded season, it might cause long delay. If you picked a season like the present one, you could carry out the work at a very cheap rate.
334. From your experience of the work already constructed would you carry out almost identically the same one, except with regard to the fixed weir? Yes; the work would be practically the same. The foundation for the shutter-weir is quite as heavy as for the fixed weir.
335. Have you the weir there at the upper end or the lower end of the lock? The upper end.
336. Has it had the effect of drawing the vessels in towards the weir? It has never been worked.
337. Owing to these shutters there has never been an effective weir to use? The water might be sufficient behind the weir, but the river has been so low below that vessels could not go in. One lock is of no use for navigation, but it will help to keep the water in front of Bourke.
338. With regard to the navigation above the lock, has the effect been sufficiently far-reaching? No.
339. So that as a means of improving the navigation it has been of no practical effect? It was never expected that one lock would do much good. It holds up the water a little in front of Bourke, but that is all the benefit.
340. I suppose the making of these weirs effective is simply a matter of levelling and backing up the water, and there is no difficulty about it? Yes; there is no difficulty.
341. Have you any doubt that if the work were carried out in the way suggested, it would have the effect of making the river navigable for vessels of the draught of water you have named? I have no doubt that it would be a success.
342. *Mr. Shepherd.*] Is the snagging of the river still being carried out? Yes.
343. Has any estimate been made as to the cost of snagging? I have made an estimate of the cost.
344. How many miles are required to complete the whole of the snagging between the two points where it is proposed to lock the river? I have not that before me. Of the length which we propose to lock there is rather more than one-third done. There is a little more than 200 miles done.
345. Have the banks been thoroughly cleared of timber, so that there is no fear of snags being washed in again? There may be a few occasionally, but all the immediately dangerous snags have been removed.
346. Is the snagging carried out much more effectually when the water is low, so that the present time is favourable? It makes the work easy in one way, but there are other difficulties created by the dry season. There is a difficulty in getting food to the men, or in getting the men there at all. A great many men have suffered from typhoid fever, so that the work has been surrounded with great difficulty, although otherwise the season has been favorable.
347. Are these locks very liable to silt up? No; as long as the sites are carefully selected.
348. I see among the annual charges a sum of £2,000 put down for a steamer and sand-pumps;—do you think that will be ample? I propose to provide a steamer with a small sand-pump.
349. Will the expense of snagging be entirely in addition to the estimated cost of locking? Yes; that is being done in any case.
350. Are there no means of getting an estimate of the cost of snagging? We can only estimate on the cost per mile now.
351. Have you any idea what it has cost per mile? I cannot say from memory, but we have had it all worked out.
352. *Mr. Dick.*] You have stated that it is provided that there should be a minimum depth of 6 feet of water on the sill of the upper portion of the lock for vessels passing down;—how much lower is the sill of the upper end of the lock than the top of the weir? The upper weir is 6 feet below the top of the water.
353. Then how can we get 15 feet of water at the lower end of the lock? According to the height of the drop each way. It is 9 feet in this particular case. There are two locks with a minimum of 6 feet, and there are two with a maximum drop of 10 feet. The others are between that.
354. Do you excavate the bank of the river at each of the places where you construct a lock? We widen out the river.
355. Does the excavation of the material add to the cost of each lock? Yes.
356. Is there any great necessity for that additional cost? It is only necessary in some cases. In a great many cases the river is already sufficiently wide, because in nearly all cases where there are bars the river is wider than it is in the normal section. Where there are bars we generally find the river is wider. In the normal section, both banks slope down 1 in 1—they are very steep. But when you come to a rocky bar you find that there is one easy slope, which you can drive down. In the normal section the river is quite narrow, and there are two straight banks.
357. What do you mean when you speak of the river being wide enough? It is wide enough to hold the lock and weir.
358. In nearly every case where you have hard rock, the river will be wide enough? Yes; it is only in some cases where much further widening will have to be done.
359. *Mr. Watson.*] In what way is it important that the river at the weir should necessarily be as wide as the river above the weir and lock? So as not to retard the free discharge of the river. It would raise the floods if you checked the river. We want to interrupt the river as little as possible.

FRIDAY, 5 MAY, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
 The Hon. ANDREW GARRAN, LL.D.  
 The Hon. WILLIAM JOSEPH TRICKETT.

WILLIAM THOMAS DICK, Esq.  
 JOHN CHRISTIAN WATSON, Esq.  
 ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Hugh Giffen McKinney, Principal Assistant Engineer, Water Conservation Branch, Department of Public Works, sworn, and examined:—

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 McKinney.  
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360. *Chairman.*] Have you prepared any evidence for the Committee in the shape of a statement? I have not prepared a regular statement, but I have made a number of notes with regard to irrigation, which I thought might be interesting to the Committee. In the report on the locking of the Darling above Bourke a good deal of evidence was taken as to the relative cost of irrigation from artesian bores and of irrigation by pumping. Upon that subject I think the Committee which then sat were a good deal misled. I think they were under a misapprehension upon some points, and it is chiefly with regard to those points which I made note.

361. Did you prepare a report some two years ago? Yes. That was in connection with the locking of the Darling above Bourke.

362. *Mr. Trickett.*] Have you any special credentials with regard to irrigation works? Yes; I think I am specially fortunate with regard to the training I have had as to irrigation works. I passed a competitive examination for the Indian Public Works Department at the India Office in 1868, and from the beginning of 1869 up to about the end of 1879 I was in the Irrigation Department in the North-west Provinces and in the Punjab. During the first seven years of that time I was on the Baree Doab Canal. During those seven years I was employed on every branch of irrigation works, from the setting out of canals to the distribution of the water, and for the last duty I had to pass an examination in canal law. For the remaining three years of my service—about three and three-quarter years—I was on the Upper and Lower Ganges Canals in the North-west Provinces, and also on the Eastern Jumna Canal. That was up to the end of 1879. In 1880 I became Resident Engineer for the Sydney Water Supply Works, which were then just started. I had nothing to do with the Prospect Reservoir, but I was employed on the canal and tunnel works. From that I was transferred to the Royal Commission on the Conservation of Water, in October, 1884.

363. Have you remained in the Government Service from that time until now? Yes.

364. Were the works on which you were engaged in India in any way similar to the works contemplated for the improvement of the Darling? In some respects there was similarity, but there was a great deal of difference. For instance, I had charge of the construction of locks on the Lower Ganges Canal. They were really similar in principle to the locks here, but the style of the works generally was totally different, because there was a very large supply of water there, while here there is only a small supply. I was first employed on the Ravee River, afterwards on the Ganges, and then on the Jumna.

365. Are they not very much larger rivers than the Darling? Yes.

366. Were you treating the rivers or branches of them? The main canals were taken from the rivers themselves. I can show the Committee a map of the whole of the canal system of the north-western provinces.

367. I suppose that the volume of water which you treated in India was of enormous extent, as compared with the water available in the Darling? Yes; it was greater beyond comparison.

368. How do the banks of those rivers compare with the banks of the Darling as to elevation and formation? The water was taken out just close to the foot of the hills, so that the conditions were quite different to those of the Darling. The supply was taken out there from the rivers, and we had nothing to do with the rivers lower down. We diverted the water almost at its source at the foot of the hills where the rivers ran into the plains.

369. Then the flow for irrigation was by gravitation? Yes, entirely.

370. So that, unfortunately, those works will not be of much advantage to us in considering this proposal? No.

371. Have you been engaged in any other work that was of a somewhat similar character to the one we are now dealing with, and the proposal to use the water for irrigation by pumping it up? There were certain cases in India where the water was pumped up by the primitive native appliances. That was exceptional, and we sought to avoid it as far as possible.

372. The main scheme you had to deal with was by means of water taken from near the source of the river? Yes. The scheme which I hope to see before the Committee in some months' time with regard to the Murrumbidgee is very similar to the Indian works; but the River Darling scheme is certainly different.

373. A weir and lock have been already constructed 3 or 4 miles below Bourke? Yes.

374. Was that estimated to cost £20,000? A little under.

375. What has it cost? I think about £21,000.

376. It has not cost anything excessively over the estimated amount? No. In regard to that case, there were special difficulties raised through the contractor throwing up the work.

377. But, as against that, you might put the fact that they were very favourable seasons? Yes; the seasons were fairly favourable, but the work was interrupted.

378. But there were no very severe floods? No.

379. That work having been constructed, what is your opinion of it as an engineering work? It has quite come up to my expectations.

380. It has been forcibly brought under our notice by Mr. Darley that you recommended this system of movable shutter-weir? Yes.

381. What do you say about those weirs? I may say that I have not gone any further into the question since then, and there may have been something proposed between Bourke and Wilcannia which would obviate the difficulties which I anticipated with regard to the construction of fixed weirs of any kind. I may say, with regard to the design now before you, that I have had nothing whatever to do with it. I had



had to do with the shutter-weir at Bourke, but I have had nothing to do with the designs of the weirs below Bourke on to Menindie.

382. We want, as we go along, to get the advantages or otherwise of what has been already done. I want you to say whether you think the shutter-weir, which was erected at your suggestion, has been a success, and whether it is suitable for a slow-running river like the Darling? I know that the chief objection Mr. Darley has to weirs of that kind is that they allow a considerable quantity of water to leak through the shutters. Of course, the question of the practicability of preventing that leakage is a matter I really have not had an opportunity of going into since.

383. This is Mr. Darley's evidence, given on the 15th March:

Mr. McKinney prepared a design on behalf of the Mines Department for a lock and weir on what is known as the Chanoine system, with folding shutters, and authority was given to construct it at Bourke. It was in course of construction at the time the inquiry on the construction of locks and weirs on the Darling was last held. When I was under examination at that time, I pointed out that, whilst in many cases the system was an excellent one, and very suitable for many rivers, I did not think it was suitable for the Darling, where the water practically ceased to run, therefore we could not afford any leakage or loss of water through the shutters. The position I then took up has been pretty well upheld, for we have seen that, when the Darling went low, the weir had practically no water behind it. The whole of the discharge of the river passed easily through the space underneath and between the shutters. Therefore no water was held up. Practically; then; the weir is of no utility.

That is rather severe criticism on a public work. We are now considering a further scheme lower down the river, and we would like you to say whether, in the face of that, you would recommend any more such constructions as this lock and weir already erected? With regard to that, as I have said, I have not had an opportunity of going into the question of the practicability of stopping that leakage. When I proposed these weirs, I considered that there would not be any material difficulty in stopping the leakage; in fact, I knew that in such weirs in France, when the rivers fall, they simply slip a piece of board between the shutters, leaving it lying against them, where it is kept by the pressure of the water. I have not gone into it in detail since.

384. In the face of actual experience of that kind, which cannot be gainsaid, because it has been gained by the practical observation of Mr. Darley, would you recommend the construction of any more weirs of that kind? I have not yet seen any reason to change my mind about that. I have not seen enough to convince me that it is not practicable to stop the leakage, so that I cannot say that I would not recommend them.

385. Have you seen the working of this weir? Yes.

386. When? Not when the river was at its very lowest, but I was up there several times when the shutters were raised and lowered.

387. When the shutters were up, did you not notice that a considerable amount of water was running between the gates and also bubbling up below the shutter-weir? Yes; that was always intended.

388. With a river like the Darling, which we know gets down to such a low state, do you contend now that it is desirable we should allow a lot of the water to run to waste? As I have said, I have not gone into the question as to what means should be adopted, or whether it is practicable to stop the leakage entirely. I never contemplated that a great quantity of water would be running off, and I am certain a great deal of it could be stopped.

389. Who has had the supervision of the weir? The Works Department.

390. Has this weir been under your supervision or care? Yes.

391. Have you had any regular reports from time to time as to whether the water was running away? Yes; we let the water go away purposely on occasions when people said it was wanted down below. On one occasion there was a boat carried down by dropping part of the shutters of the weir.

392. I can understand that happening on certain occasions, but it seems to be very strange to have a weir which is not a weir;—I could quite understand what you say occurring when there is abundance of water; but when you have continuously dry weather for two or three years it is a different matter;—here is a weir which has been erected, and which, according to the report of a former committee, was to be taken as a guide for the future;—that the water should be allowed to run away continuously is a matter which calls for explanation;—do you not say that it should be remedied? I do not know that there is any object to be gained by stopping all the water. The people below wanted the water.

393. The object of the weir was to raise the height of the water above the weir, so that when it reached a certain height it would flow over. You would thus gain a double object by backing the water up above and having a surplus to run down below; otherwise, what is the use of going to so much expense? Of course, a work of that kind does not come into operation until the whole series of works has been carried out, so that really there was nothing to be gained. Of course, as far as keeping it up was concerned, if we had complete means of stopping up the flows, once we had the shutters up we probably could have held it up.

394. I will put this question directly: In the erection of future weirs on the River Darling, do you recommend a continuance of these shutter-weirs, or do you recommend the erection of fixed ones? Speaking broadly, and as a matter of preference, without saying shutter-weirs, I would prefer movable weirs to fixed weirs.

395. What kind of movable weirs? There are several kinds. This kind seemed to me to be the least expensive.

396. Expense is not altogether the object, the great thing is effectiveness? I do not think it has been proved that the leakage at that weir could not be stopped.

397. Then I understand that if you were carrying out the work lower down, you would have these shutter-weirs again? I do not say that kind, because I have not tried the experiment on this one.

398. There is the experiment and the result? No, the experiment has not been tried, it certainly has not been fully tried.

399. How do you mean that it has not been tried? What I mean to say is that the best means of stopping that leakage has not been tried; in fact there has not been any means tried to any great extent to stop the leakage.

400. You will admit then that these shutter-weirs are not effective to act automatically? No.

401. To pull them up by the process which you described before, by a man in a punt with boat-hooks, so as to get these shutters up to their proper height to make them water-tight, what would you have to do so as to keep the water back? There would have to be something packed in the joints. The simplest course is to put weighted boards over each of the places between the shutters.

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402. But that would leave the gap at the bottom? There was a suggestion made by Mr. Wade, the resident engineer in charge, which I considered a very good one; that was, that pieces of rope should be used instead of boards. Hempen rope would find its way between the crevices, and I believe would stop the leakage.
403. Honestly, do you suggest, for a weir with wooden shutters, in a river of this kind, that the interstices should be stopped up with rope;—is that worthy of the magnitude of the scheme? They consider it worthy of much greater rivers.
404. Just so—larger rivers—where they can afford to waste the water; here we want to preserve the water;—do you still maintain that this peculiar style of weir is desirable? I am quite prepared to admit that objection could be found to almost any kind of weir, and it seemed to me that that was the kind to which there was the least objection.
405. What is your objection to a fixed weir? The danger of scouring away the banks of the river, and raising the flood-level.
406. Have you any reason, by experience, to expect that that would happen on the river Darling, with a fixed weir? I think the river Darling is a pretty good lesson with regard to things of that kind. For instance, there is a natural barrier at Brewarrina. We find there are large outflows from the river above that. In nearly every place where there is an outflow from the river, you will find a hard bar not far below. There would be a tendency, where there is any barrier, to divert the river into other channels.
407. Has that taken place anywhere, on the Lachlan for instance? The conditions on the Lachlan are very different.
408. Has anything of that kind taken place on the Lachlan? Yes, it has not only taken place, but we have been taking advantage of it to distribute the water.
409. What has taken place, and what have you done? On the Lachlan the Willandra weir has been erected, where there has been a natural outflow of that kind towards the Darling. I believe that natural outflow is due to an obstacle in the river some distance further down; at least it is largely due to that.
410. It is not due to the weir? No; there was a channel there—a very poor channel—before we built the weir. What we have done, since we built the weir, has been to improve the channel. We have simply been improving on what we found.
411. What has happened there with regard to your weir? Nothing at all. We have been diverting the water into the back country, when there was any water to divert. The Willandra weir turns the water for about 350 miles when there is any considerable rise in the Lachlan. In 1894 it did do that.
412. You are getting away from the subject; you said just now that your objection to a fixed weir was the scouring of the banks, and the danger of the water getting away from the weir. I followed that up by asking if anything of the kind had happened on the Lachlan, and I understood you to say at first that it had happened there;—I want to know if your opinion as to the danger of fixed weirs is based only on what you anticipate, or if it is based on anything that has actually happened? It is based on general experience. It is a matter which you can easily see that if you contract the waterway, you necessarily raise the flood-level.
413. Has that already happened on any work undertaken, where a weir has been left standing, and the water has got away from it and formed another channel? Yes, there is a case; but that has not anything to do with the raising of the flood-level. I understood your question to refer to raising the flood-level.
414. No; my question referred to your own answer, that you feared something would happen;—I ask is that based upon actual experience, and if so, tell us the instance and the locality? I do not know of any instance on our rivers where it has happened. There is a case where we were constructing a weir on the Macquarie, and, owing to negligence, the water was allowed to flow over the unfinished ends of the weir, and it cut away the bank behind the weir, and formed a new channel.
415. But that occurred during the construction of the weir? Yes; and it was owing to a piece of negligence. That is not a thing which need necessarily happen.
416. Is there a case where anything of that kind happened after a weir had been completed? I do not know of any.
417. The model before the Committee represents the construction of a weir and lock; the banks on the model are not as high as they are in reality; the weir shown in the model is a great many feet below the height of the surrounding banks;—as the weir is so much below the height of the protecting stone-work, and that stone-work is to be extended a considerable way on either side, what probability is there that the water will spread over such a large space? All that I said was that any permanent obstacle, such as a weir, diminishes the waterway and necessarily increases the velocity.
418. Is not that an objection to any form of weir? It is not an objection to a movable weir.
419. A movable weir has the advantage that it can be lowered, and we get the whole of the bed of the river for the outflow? Yes; I may say that the whole question of a preference for fixed or movable weirs is very much a matter of opinion. It has been very much debated, and I concluded that the weight of evidence seemed to be in favour of the movable weirs; but I know that many very eminent engineers are in favour of fixed weirs.
420. Is there any hard-and-fast rule? No.
421. Do you not think that the weight of evidence is in favour of movable weirs where a river is of such magnitude that you could afford to lose water? There is no doubt that they have natural advantages.
422. Have you had any experience of the American method of locking rivers and improving the navigation? That very arrangement for working these shutters is really derived from American precedents.
423. There, do they not, very often, where they want water only for irrigation, put up at frequent intervals weirs constructed with timber, so that if a flood comes it will wash away one or some of them, and it is therefore advisable to avoid going to the great expense of these fixed weirs? They sometimes do put up timber weirs and timber locks, but, as far as I have seen, the best authorities lately are beginning to go against them altogether.
424. You must recognise that in this question there is some difficulty, because I understand that you want to connect the two things, navigation and irrigation;—is not that your idea? Yes.
425. Which do you look upon as of chief importance in dealing with the river, navigation or irrigation? I regard irrigation on the river as really the more vital of the two; but I must say that in the interval which has elapsed since the matter first came to be inquired into I have been very much disappointed at the small progress made on the Darling in pumping water for irrigation purposes.

426. Do you look upon irrigation as secondary to navigation in dealing with a river of this kind? I do not in this case. I think it is the more vital of the two, because, without a certain amount of irrigation, that country will be hardly fit to hold.

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427. Is the soil on the banks of the Darling for a considerable distance what is known as black soil? Yes; there is a good deal of it.

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428. How do you regard that as a subject for irrigation? It is not very good soil for irrigation.

429. When you get away from that black soil do you get into a different kind of soil, which is more suitable for irrigation? Yes; as a rule there is better soil at a distance than there is near the river.

430. So that we are confronted with a difficulty there—where the water can be most easily got to the soil the soil is not exactly suitable for irrigation? Yes, there is something in that. But still, under any circumstances, I do not expect that irrigation will be carried on there except in patches at intervals.

431. You accompanied Colonel Home in his investigation, and he pays a very nice tribute to your assistance and ability in that inquiry; but you remember that at page 17 of his report he states there that it is very doubtful whether this clay soil is suitable for irrigation? I know that he had not a very high opinion of much of that western country as far as irrigation is concerned.

432. Would you amplify what you said that you did not expect irrigation to be carried on to any great extent? My idea of the function of irrigation there is that it should be carried out on patches of country, say 20, 40, or 100 acres in order to raise fodder crops for horses and cattle and for stud flocks, so as to carry them through a drought.

433. Will you concede this, generally, that you cannot carry on irrigation from the Darling over large grazing areas? I do not think that would be desirable. The best use of the available water would be to irrigate patches at intervals.

434. Are you of opinion that irrigation over large tracts of grazing land is not desirable or practicable in the western country? Yes.

435. Then you look upon it that graziers and others having holdings within convenient distances of the river would only avail themselves of irrigation for the use of home stock and valuable animals? Yes, chiefly as an insurance against drought.

436. Is such a large system of irrigation as you saw and helped to bring about in India practicable here? No.

437. To utilise water for such purposes as you indicate would necessitate individual effort in the way of pumping? Yes.

438. There would be no combination, as far as you can see, which would enable the people to club together and get water laid on to their land, and it would have to be taken in hand at various points? That would be the general rule; there might be cases where a number of people could combine together, say near a town, for fruit growing or something of that kind.

439. Would a pumping process of that kind be very expensive? No. That is a matter which was brought before the previous Committee which inquired into the question of navigation; that was for the part above Bourke. The impression that seemed to be created was that irrigation from artesian bores was cheaper than any other kind of irrigation.

440. I would like you to finish your evidence with regard to people clubbing together? Where people could club together advantageously for irrigation on the Darling would be exceptional, but there would be cases in which it could be done advantageously, and particularly for fruit-growing. Fruit-growing can always be better done by a community.

441. To carry out your idea of irrigation by individual effort, and occasionally by combined effort, have you calculated whether that would seriously diminish the flow of the river, so as to interfere with navigation? I am sorry to say that, at the present rate of progress, it would be a very long time indeed before it would have any effect upon it.

442. As far as your observation has gone, have the people availed themselves of the opportunity of pumping water from the river to help themselves in time of drought? No. On the whole length of the Darling we have only had six applications for licenses to pump water for irrigation. On the Murrumbidgee we have had twenty-six applications. The progress has certainly been very disappointing to me.

443. As far as you see, is there any way of irrigating the land on either side of the Darling, except by pumping? No.

444. You might now give us the comparative figures with regard to irrigation by pumping and irrigation from artesian bores? In a return given to the Committee which previously inquired into the locking of the Darling above Bourke, it is stated, at page 99 of the Appendix, that the cost of artesian bores which have been put down by the Government was £119,155 5s. 1d., and the quantity of artesian water obtained by that expenditure was 20,267,000 gallons per day. The detailed expenditure is given, but the details of the water are not given. Working that out to units, it comes to £3,175 for every cubic foot per second of flow.

445. *Dr. Garran.*] That means the total yield of all the bores? That is the average cost of the water, that is, taking the cost as reported. I know there are preliminary expenses which could be fairly debited to the bores, but which are not put in.

446. You mean the capital expenditure for every cubic foot per second is £3,175? That is the amount of money spent in obtaining every cubic foot per second of flow. I do not think it would be right to take the interest and depreciation at less than 6 per cent. That would give the annual cost of a flow of a cubic foot per second, interest and depreciation, of £190 10s. Now for pumping lifts up to 25 feet, I gave instances in my evidence of cost varying from £50 to £80 for every cubic foot per second. But in this case you might take about 40 feet for the lift. I shall give an instance from Mr. George Gordon, who went into this matter very carefully, and he estimated the cost of raising water to a height of 39½ feet by modern pumps at 83 of a penny for every 1,000 cubic feet. That works out to a cost of £109 1s. 2d. per annum for every cubic foot per second.

447. That compares with £190 10s. for artesian water? Yes.

448. You make your calculation on the basis of a continuous flow in both cases? Yes; it is only right for me to point out that there is one particular case of an artesian bore which gives a remarkably cheap supply, that is the Euroka bore. But it does not seem a fair thing to take one artesian bore which gives a very favourable result, and at the same time ignore all the others. In this calculation I have simply taken them all as they came.

- H. G. McKinney.  
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449. *Mr. Trickett.*] Have you placed this comparative calculation upon the height to which the water would have to be pumped out of the river Darling—that is, about 40 feet? Yes; that last one, in which the cost of a cubic foot per second comes out at £109 1s. 2d.
450. Have the applications for leave to pump water for irrigation out of the Darling been made by the large graziers? Yes, as a general rule; there is one who is a small landowner at Menindie.
451. Can you state the nature of the plant which is proposed to be used by extensive holders? I have not the particulars with me.
452. You do not know what the cost of the plant would be? No; I simply made out a list of the applications on the different rivers.
453. Will you look at Question 1441 of the evidence which you gave before the previous Committee on this subject, and will you quote what you stated there as an extract from a paper by Mr. Gordon? Yes; it is as follows:—

In a paper published by Mr. George Gordon, member of the Institution of Civil Engineers, he gave a statement of results of experiments and calculations which he had made to determine the cost of pumping 1,000 cubic feet of water. The results arrived at were as follows:—For a 6 feet-lift, 0·19d. per 1,000 cubic feet; for a 24-feet lift, 0·32d.; for a 25-feet lift, 0·42d.; for a 39½-feet lift, 0·83d.; and for a 100-feet lift, 12½d. These figures are in substantial agreement with those I obtained. In the 39½-feet lift, Mr. Gordon's are equivalent to a cost of £109 per annum for a flow of 1 cubic foot per second, while my estimate of the average cost of this quantity for the 31-feet lift was £70 per annum. Mr. Gordon's result for a 24-feet lift is equivalent to an annual charge of £42 per annum, as compared to my estimate of £50 per annum for a 23-feet lift. Mr. Gordon's result for a 25-feet lift is £55 per annum for 1 cubic foot per second. I may add that in my estimates in the two cases referred to I concluded that the annual cost of a cubic foot per second in Mr. Wills Allen's case was likely to vary from £60 to £80, and in Mr. Gatenby's case from £45 to £70. Making ample allowance for defects in working, a flow of 1 cubic foot per second should irrigate 60 acres of lucerne, and produce on suitable land five or six fair crops in a year.

I have allowed in my calculations for interest upon plant and working expenses, and made an annual charge.

454. Have you also allowed for depreciation? Yes; I have allowed 6 per cent. for interest and depreciation. I may say that in regard to the calculations as to pumping, I allowed 8 per cent. for interest and depreciation, but in the calculation with regard to the artesian bores, I have only allowed 6 per cent.
455. Do you still remain of the opinion that to put these calculations in a practical form you think £1 per acre per annum would be a fair allowance for irrigating such lands as are on the bank of the Darling? Yes; I believe it would cost about that.
456. I suppose that would be after the land had been prepared and levelled and piped? I am assuming that a place would be selected which would require very little preparing. You can get such places. If we had to make special preparations that would be in addition.
457. In that amount of £1 per acre, do you include what the Government would charge for water? No, but supposing only the fees were charged; they are only nominal at present.
458. I suppose that unless the water were availed of much more than it is at present, the people would only have to pay the fees? Yes; it would be a mere nothing.
459. If the Government carried out this work at great expense, is it probable that a charge would be imposed for the use of the water? It would be perfectly fair to do so; but, at the same time, a very large proportion of the land there is Crown land, and it might be said that the indirect benefits to the Crown were sufficient to justify the Government in not making any charge.
460. Might they not increase the rent? Yes.
461. Have you anything to guide you to say that if this work were carried out the people there would go in more for irrigation than they do now? I think they would, because they would have the water at a slightly higher level, and it would be kept more uniform for them.
462. They could then arrange their pumping plant and have a reliable supply? Yes.
463. Therefore you think they would be more likely to avail themselves of it? Yes; I think it would encourage them.
464. What is the average rate of flow of the Darling? The velocity of the river, even when pretty high, is not more than 2 or 2½ miles an hour, and when it is very low you can scarcely see the water moving. The velocity is then only the fraction of a mile per hour.
465. Is the fall very slight? The average is 3 inches to the mile. It is smaller than in any of the other rivers.
466. Is that a feature favourable to the construction of weirs and locks? It is particularly favourable to navigation.
467. Have you been consulted about this proposed work? No; Mr. Darley took the matter of the design altogether into his own hands. I have been assisting in getting up general information, and in matters connected with the surveys.
468. Have you been consulted as to the design which has been submitted to the Committee? No.
469. Have you considered the question sufficiently to be able to say whether the scheme is a good one as regards the number of locks and weirs, their position, their distances apart, and so on? I have not gone into that in detail. I started the surveys, and selected some of the sites, but the designing of the weirs had to settle the question as to the sites, because upon the height of the weir depended pretty nearly all the other points.
470. What do you consider the best position in which to construct these locks and weirs on a river like the Darling? It is very desirable to have a good hard foundation—rock if possible. It is very desirable to have the banks high near the place. It is also desirable to have the site not near any place where there is an outflow, at least any outflow on the upper side near the works.
471. So as to get a certain passage over the weir into the lock? Yes; and so that there will be no risk of changing the course of the water by diverting it into a billabong, or anything of that kind.
472. Therefore you agree with the proposal that these locks and weirs should not be erected at certain intervals, but that advantage must be taken of the natural suitable localities? Quite so.
473. Mr. Darley proposes to erect the weir at the lower end of the lock;—do you think that is a good thing? I think it is the best way in adopting this style.
474. In the case of a fixed weir, is that done so as to avoid the possibility of a vessel being drawn in to the weir by the set of the current? Yes. I think that is best in a fixed weir.

475. In the case of a movable weir, does that matter? It does not matter much, but in many cases it would be well to have the weir at the lower end, even with a movable weir, though it does not matter so much in the case of a movable weir.

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476. Do you agree with the arrangement in this case? Yes.

477. Have you considered what sized vessel it is desirable to provide for in the future requirements of navigation in this river? I think a lock of the size of the one at Bourke is sufficient for all ordinary purposes, that is 200 feet long inside, by about 38 feet wide.

478. Would that take in the largest vessel trading there at present? There is only one vessel trading there at present which could not come into the lock, and she is exceptionally broad over the paddle-boxes. As far as the length is concerned, it will take any one.

479. Would it do for any vessel likely to trade up and down? Yes; it will take an ordinary steamer and a barge at the same time.

480. With regard to the canals which you had to do with in India, was any charge made for the use of the rivers? Yes, there was a charge for irrigation. There was a double charge for what is called the owner's right, and the occupier's right. Those works were all carried out by the Government, and the charge was collected in the same way as the land revenue. The canal officers made up the return. Then the returns were made over to the district authorities to collect. It was charged by measurement of the area irrigated, and also by the nature of the crops.

481. Can we take it as a general rule that there are charges for the water used for irrigation where extra accommodation is provided by the Government or companies? Yes, it is the general rule in all Government works in India and Egypt.

482. What is the tendency with regard to navigation? It is to make the charges very low—in fact to remove them altogether.

483. What is the reason? I am not quite certain about it, but I understand it is considered that navigable rivers and canals should be treated simply as highways, that they tend so much to the development of the country that it is worth while to let the people have the use of them for nothing.

484. Are they looked upon in the same way as ordinary roads? Yes.

485. If this scheme were carried out by the Government, what would you recommend as to charges with regard to navigation and irrigation? In this case it is a very complicated question, as far as making a charge for navigation is concerned, because it is not altogether a highway for this Colony; and the question is, whether this Colony would be right in treating it as a highway for another colony.

486. If the colonies remained as they are, would it be a question whether we should not charge for goods going down the river, while we should make it free for goods coming up? There would be a great deal to be said in favour of such a proposition.

487. As regards irrigation there is no doubt that that would be an absolutely fair charge? It would be perfectly fair.

488. *Dr. Garran.*] Did you draw the designs for this shutter-weir? Yes, it was my design.

489. Was it carried out under your superintendence? Yes. The contractors stopped work, and made claims against the Government, and we had some litigation.

490. Was it all done under your superintendence? Yes.

491. So that you were responsible for the construction of the weir, and no one else? I am quite prepared to take the responsibility. I had a very efficient officer in immediate charge as resident engineer—Mr. Wade.

492. Its success or failure was due to you? Yes, I am quite prepared to take the responsibility.

493. Did you intend that the water should come between these shutters? Yes.

494. Did you always allow for a certain proportion to go away? Yes; certainly. There is another reason, though, for having a certain space between the shutters, that is such space as is required for the working of them. The shutters would not work if too close. With long shutters like those, very little movement one way or the other would make them jar against each other. These are closer than they are in the habit of making them in France. The spaces are generally larger than we allow.

495. Did you allow for water going underneath? I thought they would fit in closer, and I did not think that would be so important a factor.

496. Is that due to the want of water above the weir not pressing against the bottom? With timber and concrete it is impossible to make a tight joint. I fancy it could be made tight at the bottom with another arrangement.

497. Supposing there were 6 feet of water above the weir, would that press the bottom of the shutter against the sill better? Yes.

498. Sufficiently so? I should not like to say that, because the shutters are particularly strong and heavy, and would give very little. It would press against it, but any inequalities in the timber would not fit closely with the concrete. There would be always little spaces through which water would go.

499. In a very dry year like this—the fourth successive dry year—is not water very precious in the Darling, both for navigation and irrigation? Yes.

500. Do you want to waste any of the water above the weir? No; none should be wasted.

501. Would it not be a good thing under such circumstances to make the weir as water-tight as you can? Yes; I believe it would.

502. Did you provide any method for making it water-tight? We did not; but I regarded that as a matter scarcely likely to arise. The Darling has been lower lately than it has been since 1885. If we had had ordinary seasons since the work was finished, that question with regard to the shutters would never have cropped up.

503. That is because in an ordinary season you would have had water to waste? It is hardly right to call it waste, because it could be allowed to flow on.

504. In a very dry season do you not want to keep every bucket of water you can? Yes.

505. Is it not true that, as all the traffic will perpetually lose a lock-full of water, you want to keep a reservoir somewhere to make up for that waste? Yes.

506. Is there any reservoir except that stored above the highest lock? With regard to that, there is a feature which does not crop up in this case, but it is right to mention it. It is this fact that, although the water is not always running below Bourke, it is always running at Brewarrina. The idea I had was that if the river had been locked above Bourke, the small quantity of water which is always running at Brewarrina

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- Brewarrina would be about sufficient to balance the loss by evaporation, so that there would not have been so much danger of a shortage for locking.
507. You are getting away from the point that in all systems of canals you want a reservoir somewhere to feed them? Yes; to keep up the flow.
508. They want some storage to work upon? Yes; it may be called storage. They require something to keep up the supply.
509. Here the only storage is the natural storage above the highest weir? Yes.
510. Then, in a case where the stored quantity is scarce, is it not extremely important that the storage reservoir should be effective? Yes.
511. To make it effective you must not let the water run away through your lock uselessly? Yes.
512. Therefore your shutters ought to be tight in a dry season? Yes.
513. Have they been tight this season? No.
514. So that no reservoir has been kept at the lock? Yes.
515. Supposing we had several locks below, there would have been no storage for supplying the lockage waste? No. As a matter of fact, it would have been insufficient this year.
516. Do you consider that this specimen lock of yours has had a fair trial? I do not.
517. Do you think it is premature to condemn it? I think it is, although at the same time I admit that it is a point against it to have this trouble in keeping it water-tight in a very dry season.
518. Suppose we got a rainfall that gave us a good flow, and that we could keep permanently 6 feet of water above that lock? It is more than 6 feet; but there would be 6 feet difference above and below.
519. Supposing we had a permanent pressure of 6 feet against that shutter, would that answer? I believe it would. It was answering very well so long as there was a good supply in the river.
520. How long was that? There was a period of six or eight months when we had a good supply. We have some photographs showing the water up to the top of the shutters, and flowing between them.
521. At that time, did much water come underneath? I do not think so. That flow underneath would be lessened when there was any considerable quantity of water below the shutters. When the river is very low, and when there is scarcely anything on the down-stream side of the shutters, there is no back pressure to stop the flow.
522. Supposing there had been a lock below, would there have been a back pressure? Yes.
523. Would that have checked the quantity of water between the shutters, and going underneath? Yes.
524. So that the waste would be much less if we had a system of locks in full swing? Yes.
525. If we had twenty locks of the shutter kind, would they all act better than a single one? Yes.
526. It is scarcely a fair test to have this one by itself? Yes.
527. To test it properly you should have another lock below it? Yes.
528. In drawing this design, did you copy anything exactly in America or France, or did you make variations? When I got out that design first I went into the matter as carefully as I could, and I adopted the Chanoine shutter, which is worked generally from one end of the weir. There is a long bar that passes along the bed of the river, and there are cogs which pull the bars out in succession. The shutters would drop one after the other. That was the best thing which I could recommend at the time, although I did not care about the principle, because it had several disadvantages. One was that, if the gear got damaged, it would mean that the whole weir would have been unworkable. While the work was going on I got a description of an arrangement which was patented by a French engineer, named Pasqueau, and which was adopted in the United States, as well as in one or two cases in France. It seemed to me to be a very superior arrangement as compared with the previous one. When the contractor broke down in the work I had an opportunity of making the alteration.
529. Then you altered your design during the progress of the work? Yes; simply in that respect of the working of the shutters. The alteration made this difference, that, instead of the shutters being all worked on the one plan, they are now worked independently. If any damage occurs to one shutter it does not affect the others.
530. How many separate shutters would there have been in the first plan? The number of shutters is just the same; I think it is thirty-three.
531. Is this a French invention, which the Americans have improved upon? It is a French invention which the Americans took up more quickly than the French.
532. Has it been applied to any rivers in France? I am not certain whether it was first used on the Seine or the Loire. I believe it was used on the Seine above Paris. There are weirs with Chanoine shutters used in France at the present time.
533. Have they been subjected to heavy floods? I understand that the French rivers are subject to heavy floods.
534. Have you seen any report of a failure? No. On the great Kanawha River in Virginia they are worked with success.
535. Have the Americans made a great success of them? Yes; the reports I have seen are the reports of the United States Engineers, who correspond with our Royal Engineers.
536. Do you think that, with a fixed cement weir, there would be danger of the Darling silting up? It is a very doubtful point, but I scarcely think there would be any danger.
537. Why not? As a rule the silt is so fine that I think it is carried off in suspension.
538. Does the river during non-flood times deposit much silt? No.
539. Would it be possible, with a concrete weir, to make a pipe or valve in the middle of the weir to let the water underneath, and sluice the sand away? I do not think there would be any difficulty in that.
540. Would it diminish the strength of the dam? I do not think it would materially.
541. If you had such a valve, would it not scour the sand away? Yes.
542. Could you work such a valve from the banks? I do not think there would be any difficulty about it. It would have to be left in such a position that it would be covered over in flood time. If the valve were of such a nature that the screw would not be damaged, I do not think there would be any difficulty.
543. Would there be any risk of your not being able to close the valve through sand getting in? In many other rivers there would be a difficulty, but the movements on the Darling are so slow in rising and falling that I think any difficulties of that kind could be easily surmounted.
544. Supposing sand did accumulate, could we get it out from the banks by simple appliances such as sand-pumps? I think so, but I have not seen them used in such a case. I do not see why they should not act.

545. At any rate, you do not anticipate any difficulty from sand? No; it seems to be the general rule in the Darling that where there is an obstruction—for instance, at Brewarrina—the tendency is to scour out the river above it.

546. Do you think that is a difficulty which we can leave to the future? I think so. I do not think that the question of the accumulation of sand above the weir would give any trouble.

547. *Chairman.*] Is there not a probability that, as there would be practically still water between the weir and the lock, it would serve as a trap for catching a great deal of silt in flood time? That would be the case, but in the whole of the Darling basin the alluvial deposits are very fine, and any increase in the velocity at which it is deposited tends to remove it. I think the probability is that the silt would pass over the top of the weir and lock.

548. Would not the water near the surface be freer from silt than the water below? Yes; there would be a tendency to deposit silt there, as it would be comparatively still water; but when there are 3 or 4 feet of water over the top of the weir I think the draw will be sufficient to wash out nearly all that silt again.

549. If silt did accumulate against the weir, do you think that the first flood coming down would clear it out? I think so; there might be a little left in, but I scarcely think it would be worth speaking about.

550. *Mr. Watson.*] Is there any danger of the silting up of the lock entrance? No.

551. The worst that could happen from silt immediately above the weir would be a slight reduction of the area available for the retention of water? Yes; I scarcely think that there would be any serious danger from the accumulation of silt. Of course, we have not much to go upon in the case of the Darling; but judging from the natural obstacles, and especially at Brewarrina, the conclusion one is led to is that the tendency is to scour out rather than to deposit silt.

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TUESDAY, 9 MAY, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.

The Hon. ANDREW GARRAN, LL.D.

The Hon. WILLIAM JOSEPH TRICKETT.

WILLIAM THOMAS DICK, Esq.

JOHN CHRISTIAN WATSON, Esq.

ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Hugh Giffen McKinney, Principal Assistant Engineer, Water Conservation Branch, Department of Public Works, sworn, and further examined:—

552. *Mr. Trickett.*] When the Committee considered the question of locks and weirs on the Darling in 1896, the portion of the river to be dealt with was from Bourke upwards? Yes.

553. Now it is proposed to make them downwards;—I suppose one of the reasons for abandoning the upper portion is that a railway has been authorised to Brewarrina? It was not authorised at that time, but I understand that a majority of the people preferred the railway.

554. What portion of the river do you think would be the best to deal with as regards an irrigation experiment, above Bourke or below it? It is difficult to answer that question right off, because the conditions differ very considerably. Below Bourke irrigation is more wanted, because as you go towards Wilcannia the rainfall diminishes.

555. Looking at the country above Bourke, when the scheme was submitted to the Committee in 1896, you went carefully into figures, and worked out a possible estimate of return in the shape of irrigation dues of about £50,000 per annum? That was what I anticipated it would come to ultimately; but, as I have already stated, the signs of progress in that direction on the River Darling are very disappointing.

556. Therefore you feel that that estimate is not so likely to be realised as you then thought? It would not be realised in the near future.

557. The other day you intimated that it would be the duty of each holder to pump the water he required for his holding, except where there were centres? Yes.

558. When you were examined before upon that project you spoke differently;—at Question 1952 you will see this:

*Mr. Trickett.*] You do not think that every farmer would have to erect his own pumping plant? No; it pays much better to have a large pumping plant, making an equitable charge for the distribution of the water.

Is not your statement to-day different? That assumes farming. I certainly did not refer there to the distribution of water on any large scale. I never thought it practicable.

559. I asked you if you thought every farmer would have to erect his own pumping plant, and you answered that it would be far better to have a large pumping plant;—unless they were close to each other, would that be practicable? No; but I do not think there would be much farming, except near the centres, at any rate for a long time to come—that is, assuming that the farms would be of a large size.

560. Then that answer fits in with your other one, inasmuch as it applies to where farmers would congregate? Yes.

561. You do not mean, then, that the Government should go in for a wholesale system of pumping all along the river? No.

562. In 1891 you brought up a report in which you spoke of the patches over which water conservation on the Darling is provided; one of them has been irrigated by direct flow through natural or artificial channels from the river;—seeing that you stated the other day that the only way in which we could get irrigation would be from the river, how could we get irrigation by direct flow from only artificial channels? There is none of that in the upper part of the river, as far as I know, but there could be irrigation with flood-water down towards Menindie, and there was a proposal there some time ago to irrigate an extensive lake. The arrangement was to construct a dam across the mouth of the channel which led into the lake. The intention was to put some kind of sluice-gate in that, and let the water in as required.

563. That provision would only apply to occasional low-lying land, below the flow of the river? Yes.

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564. What I want to arrive at is, that there is really no difference between that recommendation and what you stated at our last sitting—that irrigation by gravitation is impracticable, except in the case where you can get a bit of low-lying land, below the flow of the river, where you could put in a siding and divert the water? Yes.

565. Looking at this proposed scheme from a financial point of view, as experience has shown that farmers and others have not availed themselves of the privileges of pumping water for irrigating their lands, and as the present tendency seems to be not to charge tolls for navigation purposes, this scheme must be looked upon as remunerative only in a very small degree, if at all? Yes; as far as can be seen, the direct return would be little, if anything.

566. Have you made any calculation here, such as you made in the Bourke to Brewarrina inquiry, as to the land which would be benefited, and as to what extent irrigation water would be available? No.

567. In the former inquiry a statement was handed in by the Department in which your name is used, and in which the following paragraph occurs :

It would be unwise to construct weirs which would interfere with or obstruct the waterway, and it would be very expensive, as well as unsafe, to carry the works to above flood-level.

You endorsed that opinion in the evidence, and also in the report referred to? Yes.

568. Do you still maintain that opinion? I still think it is not advisable? Speaking generally, I have not seen any reason to modify that opinion.

569. Was Mr. Gordon also of that opinion? Yes. I know he also advocated movable weirs for the Darling. I may say that that statement had special reference to the case of Bourke, where anything that would interfere with the flood-level would have led to serious consequences.

570. In what way do you think it would be unsafe to construct a permanent weir? I think I mentioned before that the idea I had was that all that country along the Darling has been deposited by the river, or nearly all, that the deposit is of a very fine character, and that if you by any means raise the velocity above the velocity at which that material was deposited it will tend to carry it away again, even though the increase may be very slight.

571. You might, by doing that, make holes in the side of the waterway which would gradually make away and form another channel? Yes; or change the channel at flood-time. I came to that conclusion after going down the river by steamer from Walgett to Wentworth in flood-time. I then had an opportunity of seeing the river in many places flowing in three or four different channels. I also had an opportunity of seeing what they call breakaways in every stage of formation, from the first small flow until the last, when it was becoming the river.

572. Will you explain how that would be averted by the use of movable weirs? The principle of working a movable weir is that when the river rises to the ordinary navigation level the movable weir is shut down to the bed of the river, and there is no obstacle left for the passage of the flood-water. In the case of the Bourke lock and weir, with the lengthening of the weir on one side and the building out of the lock wall in another, the waterway is slightly better than it was before the lock and weir were built.

573. *Mr. Levien.*] Supposing all the timber came down between the two locks and weirs, what would you do? When there is any floating timber it comes down in flood-time. At that time the gates of the lock are both open, and the weir is lying in the bed of the river, so that there is no obstacle in its way.

574. Would not the timber catch between the two, and could vessels go through in those circumstances? The flood river moves right over the top, and is unobstructed; any floating timber would be carried over.

575. I have lived on the Hunter, and I know something about what occurs there? The circumstances are very different. The velocity in the Hunter would be double or treble what it is in the Darling.

576. What is the velocity of the Darling? I just looked up my notes, and I see that the greatest velocity I obtained there on the surface was only a little over 3 feet per second, which is a little over 2 miles per hour—that is much lower than it would be in the Hunter.

577. *Mr. Trickett.*] When your weirs are up, would there not be a danger then also of the banks being interfered with by the water? No; because the weir is put up only when the natural flow in the river is small. For instance, at Bourke, as far as I recollect, the natural level at which the river becomes navigable is about 9 feet on the gauge. At that time the flow in the river is comparatively very small, and it is only below that that we would have the shutters up. At the only time when there could be danger from debris there is no obstacle in the way, and it will run right through over the top of it.

578. Are you quite sure that there would be very little fear of the river silting up in the locality either of a fixed or a movable weir? I do not think there is much danger of that, although I would like to modify an answer I gave to Mr. Watson. He asked if there was any danger of silting up above the upper lock-gates with a fixed weir. There is considerably more risk with that than with a movable weir. I said I did not think there would be, but I think there would be a doubt about that.

579. *Mr. Watson.*] Do you think that there is a risk of silting extending to the upper part of the lock—that is, 200 feet from the weir? I think so. I should not like to be very decided about it, but certainly there would be more danger than in the case of a movable weir.

580. Why would that be the case? At the weir itself there is a considerable draw; the water is being drawn up over the weir, and there is a tendency on the part of the silt to scour out for some distance. Further back that influence is not felt, and it would not be felt in any appreciable degree in the part immediately above the lock.

581. Would not your lock be in the same position with a movable weir? Yes; but with a movable weir the lock-gates are not nearly so high. The movable shutters would be put down when the river is about 9 feet at Bourke; but with a fixed weir the navigation passes through the lock only when it falls to (say) 13 or 14 feet. There would be a difference of 4 or 5 feet. In this case the steamers have to pass over the top of the weir.

582. Will there not be a certain amount of scour every time that the lock is used, and a vessel is sent through? Yes.

583. Would that not operate in keeping clear of silt the part above the lock? Yes; but then the lock-gates are very much higher with a fixed weir than they are with a movable weir. These lock-gates are much higher than the lock-gates in the other case. I consider that the greater depth of water at the head of the lock would tend to silting up.

584. Assuming that there is a certain amount of silt deposited immediately above the weir, would not that form a shelving bank right back for several feet above the weir, leaving the water an opportunity of gradually



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gradually running right over it, and carrying the deposit with it? I believe the form the deposit would take would be that of a slope down towards the bottom of the weir. It would be scoured out for a distance back, perhaps, 60 or 100 feet. It would slope upwards from the bottom of the weir. Then I believe the silt above that will lie to a certain extent. Perhaps at some distance back it would be almost as high as the crest of the weir, and then I think there would be a chance of its accumulating close to the lock-gates.

585. Above the lock-gates is the only portion where there would probably be any deposit, and that would be 200 feet back from the weir, because that is the only place where there is any dead water? Yes; but it is a most likely place.

586. Would not that be counteracted by opening the lock-gates? Yes; but I believe that during floods there would be an accumulation of silt behind them.

587. Do you not think that with the next locking the water would take that away? There would be great trouble in opening those gates; but that may be obviated by having sluice-gates.

588. *Mr. Trickett.*] With regard to the possible silting-up, I suppose you will admit that this river is somewhat peculiar with regard to the fineness of the silt which flows away? Yes.

589. Is it not a fact that where the water strikes against an obstruction in the river, instead of silting-up, it really forms a hole alongside the obstruction? Yes.

590. Does not that indicate that everything would go away down this weir-space? Yes; I certainly do not think there would be any accumulation behind the weir.

591. Or back from it? There could not be any great quantity. There might be some away back from the weir, but not close to it.

592. It is a slow-flowing river in flood-time, and the stuff is so fine that it mostly gets away? Yes, the flood carries the silt; in fact the whole of the country down to Wentworth is made up of it.

593. What do you estimate is the annual cost of working the movable weirs? At Bourke one man has been sufficient to work the weir.

594. Has that weir been properly worked at all? Yes; the shutters have been up and down many times.

595. In your last estimate you stated that £250 a year would be sufficient? That was really an over-estimate; that was allowing for any necessary repairs.

596. What is your opinion now about the estimate of £250 a year that you gave before? That is a very ample estimate so far as we have seen.

597. For seventeen weirs, would you put down the expenditure at £200 a year for each weir? Yes; that would be a safe estimate.

598. Would that amount to £3,400 a year for maintenance? Yes.

599. Would not that be a very considerable item? Yes; but still it is small if we compare it with the cost of maintaining a road of the same length.

600. But is it not costly compared with the working of a fixed weir, according to Mr. Darley's estimate? I am not prepared to say as to that.

601. Can you state, from your experience, what the cost of one would be, as compared with the other? I cannot say from experience.

602. Is there a Water Rights Act in force with regard to these rivers, for the purpose of enabling licenses to be given? Yes; that is what I referred to when I mentioned that only six applications for licenses had been received from the river Darling.

603. Has this question of locking the river Darling occupied public attention for many years? Yes; it has been brought up repeatedly.

604. Has there been a changing idea from time to time as to where the work should begin? Yes.

605. Was it first proposed to begin as low as Wentworth and then did we get a proposal from Bourke to Brewarrina, and are we now going down-stream again? Yes; in fact there was a proposal at one time to begin at Wilcannia, and go up to Bourke.

606. Was there a proposal to charge river dues on the Darling at one time, in consequence of the large sum of money that this Colony has expended in snagging the Darling? Yes.

607. With regard to the irrigation schemes which have been established at Mildura and Renmark, what has been the experience financially? I know that the general public have suffered very considerably. I know also that a large number of the people who went to those places were greatly disappointed. They did not by any means come up to the description they had received.

608. Was that a pumping scheme? Yes; both Mildura and Renmark were pumping schemes, and the pumping had to be done to a great height. The average lift at Mildura was 70 to 80 feet, nearly twice as much as in the case of the river Darling.

609. What were the people there charged for water? At first they were charged nothing, then they began with a charge of 6s. per acre per annum, then they raised it to 12s. per acre per annum, and next to £1 per annum. I know there was an intention of raising it to 24s. or 25s., but I am not quite sure whether they did so.

610. Were the people there able to bear the strain? Some of them in the more favoured positions were.

611. Those who had money at their back? Yes, and some of them who were very good orchardists, and who were convenient to the township; but the majority of the people found that it was too heavy, especially as the very least they paid for their land was £20 an acre.

612. Are those concerns going now? Yes, but not very satisfactorily.

613. In what way are they unsatisfactory? The people are complaining greatly about the irregularity of the water supply and the expense. A large number of the settlers paid as much as £40 per acre for their land, and those close to the town paid £80 per acre. That is much too high a price.

614. Were those irrigation settlements started on the American principle? Yes. They were really started much more as land speculations than as irrigation settlements.

615. Are you able to say whether the failure of those settlements is due to the water failing or to the people having given too much for the land? In the first place, the people gave far too much for the land, and in the second place the arrangements for distributing the water were bad.

616. *Mr. Shepherd.*] Was not the greatest difficulty the distance from market? That was a great difficulty; but, with regard to raisins and other fruit, I understand the people did not complain so much of that as they did of the other difficulties.

617. Was not that the chief cause of failure? I have talked with a number of the settlers there, and what

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what they attributed the failure chiefly to was that the charges were far too high, and that there was a great deal of injudicious settlement. People went far away from the town, where they found the water supply very irregular.

618. *Mr. Trickett.*] As far as you know, if the people had got the land at a reasonable rate, and if they had been charged 5s. or 6s. an acre per annum for the use of the water, do you think that the settlements would have been a success? Yes; if they were properly managed.

619. Was it a success with regard to fruit-growing? Yes; I have been told that Lord Ranfurly's place, close to Mildura, has been doing very well almost from the start.

620. So that, looking upon that as an experiment, and if the settlers had been given a fair show, has it been a success? It would be too much to say that it has been a success, but it has shown pretty well that they could grow fruit by irrigation very successfully; but it also shows that a settlement like that can be too much handicapped.

621. Have you been there? Yes; several times. I went through there when everything was booming, and I went through when everything was the reverse.

622. At the present time, are both places at very low water? Yes.

623. Has not irrigation on a large scale been undertaken in Victoria, in the shape of trusts? Yes; on a considerable scale.

624. Have not large sums of money been spent in conserving water for irrigation? Yes.

625. Has that been a financial success? I do not know that any of them have been. Where irrigation has been carried on by private enterprise alone it has done very well. I have seen several instances of that; but a great deal of the expenditure was premature. For instance, the principal work was the Goulburn weir and canal. That was extremely costly, the weir alone costing about £210,000.

626. *Mr. Levien.*] How many years ago was that carried out? It was finished about 1889 or 1890.

627. *Mr. Trickett.*] Is it not a fact that the great irrigation schemes which have been undertaken in Victoria by the Government, to induce farmers and others to take up land and irrigate it, have been absolute failures? I do not know that we could put the matter so strongly as that, but the report of the Royal Commission which inquired into these works showed that it would have been very remarkable if they had not been financial failures.

628. Did it produce a large number of farms? Of that I am not certain, I have not been able to get any very recent information; but last year, and the year before, the area irrigated had increased a great deal. 629. *Dr. Garran.*] You said on Friday that the irrigation of large areas on the Darling was out of the question, and that your idea was that there would be patches or moderate areas at intervals all down the river which would be irrigated;—what sized areas did you contemplate? Forty, 50 or 100 acres.

630. How many of these would there be between Bourke and Menindie? It would be impossible to say at present.

631. What do you think would be the area that would be placed under irrigation between Bourke and Menindie? I do not think it would be possible to give any fair estimate under present circumstances. The idea I had was that in every holding on each side of the river there would be a patch of irrigation by way of insurance where they would provide fodder for the best of their stock. The condition of affairs with regard to that will go on changing as the subdivision of the lands extends by the taking up of land in homestead leases, so that it will be quite impossible to say anything even as to the approximate area to be irrigated.

632. Are you speaking of pastoral settlers? Yes.

633. Are there not others, such as market gardeners, and orchardists? They would be confined almost to the neighbourhood of towns like Wilcannia and Menindie.

634. How much water per acre do you think these little settlements would require? If the water were properly distributed, I should think a cubic foot per second would irrigate 60 acres of lucerne. That is a crop that might be cut six times in a year.

635. Will lucerne take as much water as anything else? It will take more than any other crop.

636. Would you want to be pumping water day and night on a bit of land? It would depend upon whether a man wanted to get the utmost value out of his pump.

637. Would he have to keep the land saturated? No; he would irrigate constantly in turn. He would irrigate every patch once in about three weeks. He would start at one place, and flood an acre or two, he would then go on to the next patch and keep going on until he got back to the first one.

638. Your estimate of cost was based on the engine going night and day. To irrigate 100 acres, would you require the engine to go night and day? Yes; 60 acres of lucerne would require 1 cubic foot per second.

639. What engine-power would 60 acres keep going constantly? I have not the figures, but I could work them out. You would get better value from an engine raising 3 or 4 cubic feet per second than from a smaller one.

640. If you kept the engine going night and day what sized engine would you require for 60 acres? That is a matter which I will have to work out.

641. With the smaller area, say of 40 acres, would a man require a smaller engine, or else not pump night and day? Yes.

642. If the pumping were intermittent, would not the cost per cubic foot increase? Yes.

643. So that your estimate is a somewhat supposititious case that the area to be irrigated will exactly use up the power of the engine going night and day? Yes.

644. If the engine is not going night and day the cost would be increased? Not so very greatly, because the cost of night-work is generally more than day-work.

645. Are there some engines on the river bank now pumping? Yes.

646. Of what power are they generally? I do not know. Generally speaking, they are portable engines.

647. Have you ascertained from any other people who have already pumped water what it costs them? Yes; I think it was given to the Committee which inquired into the question before. One of the pastoralists gave a statement as to what the water cost him, and how much his hay cost him per ton. I think it was the owner of Winbar station. He stated that the hay cost him 23s. per ton.

648. Does he give the cost of pumping? No; he has not worked that out.

649. Can you compare that with your estimate? He stated the area irrigated, and I have a note in the margin to the effect that with the pump he had and with a 12-horse power engine he ought to have done far more irrigation.

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650. Your estimate was a theoretical one? No; it was not theoretical, except as to the highest lift. With regard to lifts up to 24, 25, and 28 feet, I accepted the actual cost of Mr. Wills-Allan's pumping plant at Namoi, and Mr. Gatenby's at the Lachlan. For a 39½-feet lift that was calculated out. It was really accepting Mr. Gordon's figures, but the others were not.
651. What I wanted to get was the total quantity of water which you proposed to take from the Darling, and I wanted to ask you if you thought that quantity could be spared? I should estimate that the quantity of water that could be taken from the Darling would be much greater if there were a system of weirs than at the present time, because the loss of water would then be much diminished.
652. Supposing there had been 200 miles of irrigation, gardens, and patches between Bourke and Menindie this year, could you have stored water to do justice to those irrigation blocks? Not continuously. With regard to that, I may state that in the licenses for pumping in a river like the Darling there is a condition put in that the pumping is liable to be regulated by the Minister for Public Works, when the supply in the river falls below a certain figure. In the case of the part between Bourke and Wilcannia, the figure we have taken is 250 cubic feet of water, per second, in the river. That condition means that when the river falls below that, the Minister can arrange that the pumping shall be done in rotation, so that one man could pump for two days in the week, and then another man could pump for two days, and so on.
653. If you have an irrigation farm in that dry country, is its success dependent on a constant supply of water? Yes.
654. If you have a farm where you are liable to have the water shut off for a week, a fortnight, or a month, will you not be ruined? Yes, if it is anything like an orchard or a vegetable garden; but with regard to pastoral properties, where I think the bulk of the irrigation would be done, it would simply mean that they would have a smaller stock of hay in that season than in another season.
655. But in the case of vegetables or fruit-trees, would not the whole crop be lost, and the trees and plants destroyed? There would be a danger of that.
656. So that it would be a very hazardous thing to carry on an irrigation farm if the Government or any other power could shut off the water? Yes.
657. According to you that is the condition on which every irrigation farm on the Darling must be held? Not necessarily so.
658. In a year like this, do you think the Minister, if he wanted to keep the navigation open, would allow all these people to draw on the water? Yes; but I think that in a season like this the navigation ought to suffer rather than the irrigation.
659. You, as an irrigationist, hold that irrigation should prevail over navigation? Yes.
660. But would not the people with farms on the river be interested in navigation? Yes; but I have no doubt as to what would be their preference.
661. Their greater interest would be to save their farms? Yes.
662. As you propose only small farms, I presume you do not look for an export of produce? No.
663. You think nothing more will be produced except what is wanted for local consumption? Yes.
664. Are the banks of the Darling a little higher than the ground immediately behind? Not always. The Darling is different from the Murrumbidgee.
665. Have not most of our rivers high banks? Yes.
666. Has not the Darling? In places, but not in others.
667. When the floods are out are those high banks covered with water? The banks are covered in many places for long distances, but there are patches of high lands at intervals which are above the highest floods.
668. Are most of the pumping plants out of the reach of floods? Yes. In some cases the pumping plants have been fixed on slides, and can be pulled up in time of flood. These are the smaller ones.
669. Looking at the number of irrigable areas, would there be high ground for all of the people to put their plant on? I think so. Even if there were not, there are places where the land is so little under flood that it would be easy to make up a small place which would be high enough for the engines. There are people who would take the risk of irrigating land which would be under a flood like that of 1890.
670. Even supposing we kept the engine out of water, would not the farm itself be under water in time of flood? Yes, in many cases. While there is a large proportion of country along the river liable to flood, still the areas which are out of the range of flood are very large—larger than can be irrigated.
671. There has been given in evidence the statement that stone fruit will not bear being flooded? Yes; I had evidence of that when I passed down the river.
672. Then wherever the flood is likely to reach, it would be useless to plant fruit-trees of that kind? Yes; it would be rather too risky; but it is only the flood of 1890 that reached those stone fruits. I saw the orchard which was particularly referred to in that evidence, and all the citrus fruit-trees lived through the flood of 1890, while the stone fruit-trees were all killed.
673. How far back from the river do you propose to irrigate? That would be a matter to suit individuals.
674. Is there not a natural line beyond which you could not go conveniently? Practically there is not, as far as the levels are concerned; but, at the same time, no man would want to take the water any great distance away who knew the quantity he would lose thereby; in fact, that is one of the great sources of failure at Mildura. There they sold land to settlers 5 or 6 miles away from the place where the pumping establishment was. They found that before the water reached those settlers the greater part was lost.
675. How far did those floods go back? In some cases 20 or 30 miles. On the Lower Talywalka there is a long stretch of country which is under flood. In fact the flood-water goes further back, and right down to the lakes; but there are large areas out of flood.
676. What is the floodable area on each side of the river? I cannot exactly say; I know there are many places where, in flood-time, the river is as much as 20 or 30 miles wide.
677. What I gather from your explanation is that in big floods those farms will be under water? Not necessarily. There are plenty of places along the river that are quite above flood-level.
678. Large enough for farms? Yes; plenty of places.
679. They would stand out as islands in floods? Yes.
680. Would that be above 40 feet? Yes; in some cases.
681. Would that high land be as good as the land on the lower levels? In some cases it is better for irrigation. Generally speaking, that land is reddish loam, and a large number of irrigationists prefer that.
682. Is it self-drained? Yes; and it is less clayey than the lower land.
683. Is there enough land close to the bank out of flood reach to serve for the farms you speak of? I do

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- do not mean that there would be any considerable number of farms, I merely referred to land under pastoral occupation. There is plenty of that land, far more, in fact, than there is water to irrigate.
684. With regard to a farm near an irrigation bore, is not the water supply there pretty constant? Yes; although there have been a number of complaints lately about the supply diminishing.
685. Would not a man be better off getting water from a constantly flowing bore than from a doubtfully flowing river? Yes; but I think it would be very likely that the bore would be quite as risky as the river with regard to giving a constant flow.
686. That is a thing of the future? There have been several cases of complaint already about the supplies in bores diminishing. There is one case I know of where a bore was stopped through the material at the bottom getting scooped out, and the casing dropping down.
687. These are risks that apply specially to bores, but as far as the back country is concerned, are not the bores more useful to settlers than the rivers would be? Yes.
688. These scattered bores will be so many oases in this dry country, so that they will have their special function apart from the Darling River? Yes. What I meant in referring to the two was that artesian bores would not, under any circumstances, supersede the function of the river itself.
689. Do you think that a pastoralist who has successfully sunk an artesian bore is just as well off as a man who has pumping machinery on the bank of the river? Yes; but a man who sinks a bore runs a great risk. He may have to put down two or three before he gets a successful bore.
690. But these bores have been running during the drougthy season, while river water was scarce, so that the bores have some advantages over the river? Yes, they have advantages, just as the river sometimes has advantages over them.
691. But you would never get your farm flooded when drawing your water from a bore? No.
692. You can apply the water much or little, just as you like? Yes; but you can do that by pumping.
693. You said yesterday that the Willandra Billabong carries the water for 350 miles? Yes; but that is as the channel goes, and not in the direct line. It is over 100 miles in a direct line.
694. What is that dam on the Lachlan made of? Crib-work.
695. Does the water go over the top of the dam? Yes; the crib-work is filled with stone. It cost a little over £5,000.
696. Was it constructed under your superintendence? Yes.
697. How high does it bank up the water? Twelve feet.
698. Does that send the water to the end of the Willandra Billabong? Yes.
699. When you get to 100 miles, is there rising ground between that and the Darling? Yes; the billabong turns southward there, and there is a slight rise.
700. Could you cut a canal right through from there to Teryawynia Creek, and so make a direct communication with the Darling? I believe the thing would be possible, but the circumstances would not justify the cost.
701. Does your survey show the elevation of the ground behind the water? Yes. The fall of the Willandra Billabong from where it leaves the Lachlan is something like 120 to 130 feet.
702. Has the water been sent right into that lake? Yes; in 1894 it went into it, but not since. There has never been such a dry period known in the case of the Lachlan as there has been since 1894.
703. How often do you get the Lachlan high enough to send the water down the billabong? Previous to 1895 it went down every year. The weir was finished about the time of the flood in 1890. After that it ran through the Willandra Billabong every year until 1894. Since then it has never gone down more than 30 or 40 miles from the head in a direct line; there was not sufficient water.
704. Was there water enough in the billabong in ordinary years for the stations? Yes.
705. Was there enough for irrigation farms? No.
706. In dry years it has been deficient? Yes.
707. So that the stations have had to fall back on other resources? The stations near the head have had enough to last them right through, but those far down have had to fall back on other sources of supply.
708. You say that your regulations at present put all those who use the water under the control of the Minister? Yes.
709. Does not that imply that the law as it is administered puts irrigation second, and the water supply in the river first? I do not think so.
710. Is not that the case if the Minister can stop the irrigation water whenever he thinks proper? Yes, but that is not the purpose of his having that authority. The idea is simply to distribute the available supply of water equally between those irrigating.
711. Is it merely to arrange between the different persons drawing the water, and not as between irrigation and navigation? Yes; it is merely to arrange a rotation in the use of the water.
712. Can you give us any definite idea as to the quantity of water which you could set aside from the Darling between Menindie and Bourke, even in a dry year? In an extremely dry year, if the whole river had locks and weirs, I should say that the quantity of water which should be taken should be simply measured by the quantity of water conserved by the weirs. That is all that should be drawn upon.
713. If you have a system of locks and weirs, you will have no more water than you will actually want for navigation? Yes; but in an extreme case like the present year, I think navigation should be suspended if the water were wanted for irrigation on the river.
714. Supposing that all these locks were in existence, and every one was full, if you draw water for irrigation purposes must you not replace it from the uppermost reservoir;—therefore we want to know how much water you want to take? That is really a question which only arises in a year like the present.
715. Precisely;—but is not that the testing year? Yes. In a case like the present year, supposing the whole series of locks and weirs were complete, I should say the proper course would be that if the requirements of irrigation demanded it we should stop navigation.
716. Then you would have a whole string of people dependent upon getting their stores up and their produce down the river who would have the river closed against traffic? Yes; but it would only be for a month or two; whereas, under present circumstances, the navigation is stopped for eighteen months.
717. But now we are told that the storekeepers lay in supplies for six or twelve months, whereas when they get the locks and weirs they will live from hand to mouth? I do not think they will be justified in doing so. They would always want to be prepared on a river like the Darling for an extreme drought.
718. Speaking generally, you do not see your way to give the country a direct financial return from the money

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money spent on canalization or locks, or from the money to be spent on irrigation? In the case of navigation, certainly the whole tendency at present is not to apply rates. But in the case of the river Darling I think there are strong reasons for putting on rates; that is, however, purely a matter of policy. In the case of irrigation that is a matter practically settled by the Water Rights Act.

719. Do you think the river should be treated like a road? Speaking as a general rule, it should be.

720. In other words, the Government should make a present of £500,000 to the district, and ask for nothing in return? I do not say so.

721. Will not that be the case if we get nothing back in the way of lockage rates? It is a matter of policy on which I cannot give an opinion.

722. If irrigation is likely to pay with locks and weirs, why should it not pay now before the locks and weirs are made? As I have said, the people in that part of the country certainly take to irrigation more slowly than I expected. But the evidence given at the previous inquiry shows that irrigation, wherever it has been conducted in a proper way, does pay.

723. Do not the people there like to make money? I believe they do.

724. Have they not had this river flowing past their stations year by year? Yes; but unfortunately very few seem to know how to use it.

725. Have not the newspapers been teaching them for twenty years? A great many of our people think that they can strike out a course of their own; and I know that in many cases where people took to irrigation there was no chance of its paying.

726. As a matter of fact, the irrigation on the Darling has not hitherto been a very paying thing for those who tried it? Possibly it is so; but I think that at the previous inquiry those who tried it expressed themselves very highly satisfied.

727. If it paid some people, why did not others imitate them? I cannot say; it may have been want of enterprise. In some cases it may have been want of capital. It means a considerable expense to buy pumping plant in a place like the Darling.

728. Have not the pastoralists on the Darling, in many cases, had large capital at their disposal? I think that many of those who had large capital at their disposal adopted irrigation.

729. Have you seen the Pera Bore? Yes.

730. As far as you saw, was the irrigation there as successful as on the river? In some respects it was, and in others it was not. There was an appearance of salty deposit in some places; I do not know exactly whether it came from the water or from the soil.

731. Had it injured the vegetation in any way? No.

732. Then there was no cause of failure from that? No.

733. Was it as much a success as on the Darling? It could not be compared with it. On the Darling it is irrigation for fodder crops; at the Pera Bore it was irrigation for fruit. It was totally different, and could not be compared.

734. *Mr. Watson.*] The other day, in reply to Mr. Trickett, you indicated that there were other kinds of movable shutter-weirs in use in some parts of the world;—can you describe them? There is one common kind called needle weirs. They are formed with a series of pieces of timber generally about 3 inches or 4 inches in section, and about 8 or 10 feet in length, and they are laid with a slope up-stream. They have a beam of some kind to abut against at a height of 8 or 9 feet above the river-bed, perhaps less. They are just set in place sloping up-stream, and have to be lifted out of place to open the weir.

735. Would not that kind be open to the same objection as the shutter weir—that is, that it would lose water? Yes.

736. Are there any others? There are several varieties of movable weirs; there are five or six kinds. The only kind I have actually seen are shutter weirs and needle weirs.

737. Is there not one kind where they have a gate raised or lowered or opened? That is the Stoney patent. They are huge iron gates, which have to be raised up out of the river entirely. They have used them on the Manchester Ship Canal, and in a number of other places.

738. Would it be costly to erect them? Yes, in the case of the Darling, because the difference between extreme low water and extreme high water in the Darling is very great. If you have any arrangement which involves the lifting of a weir right out of the water it is very costly.

739. *Mr. Levien.*] In the case of the Manchester Canal, is there not a tidal river? Yes.

740. So that there would be a great difference between the Manchester Canal and the Darling? Yes.

741. *Mr. Watson.*] You say that the difference between the ordinary height and the flood-level of the Darling is so great that you would require to raise the gates too high for the system to be economical? Yes; it would be very expensive to build works of such a height as would enable you to use such gates.

742. So that you still prefer the shutter weir? Yes.

743. It has been stated here that whilst these shutters were in position some time ago at Bourke, and therefore presumably in a proper position to hold the water back, the height of the water above the shutters was only an inch or two above the water below the shutters? That was when there was a very small flow in the river.

744. Unless we can guarantee a good flow, it would seem that the shutter is not a suitable kind of weir? Yes; unless they are made more tight at the joints.

745. Would not that mean a large amount of labour in making them watertight? I do not think it would involve very much labour. The men in charge could easily do all that is wanted.

746. Would you have to close the joints every time the lock was used? No; it might not have to be done more than once in five or six years. This year is an exceptionally dry year. The river has been lower than ever since 1885.

747. We have had it in evidence that the river has been closed to navigation half the time during the last seventeen years? It does not follow from that that the flow was so low as at present.

748. Do you think that in ordinary years there would be sufficient flow of water to make good the loss occasioned by the shutters? Yes; as far as I can recollect there has been no year from 1885 up to 1898 when there would not have been sufficient.

749. Assuming that the flow of water is sufficient to make good the loss which would accrue through the openings in the shutters, will the flow be sufficient to make good what you would take out for irrigation? Yes.

750. Then there is the loss by lockage when vessels go through the lock? That is really not a loss; it is really a small flow. It is only a loss to the first lock.

751.

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751. Do you think the flow of water in ordinary seasons is sufficient to make good the loss by leakage through the shutters, and the loss by lockage, and at the same time give a reasonable supply for irrigation? Yes, except in extremely dry years.
752. Do you think people would be encouraged to go in for any large expenditure of capital in the way of irrigation, planting and laying out land, and the arranging of trade dependent upon secure navigation, unless they were certain that even in the worst years there would be sufficient provision made for them? I think they would, in cases where they were going to irrigate for fodder.
753. You do not contemplate irrigation settlements for fruit-growing? Not on an extensive scale.
754. *Mr. Levien.*] You speak of fodder being grown on stations to feed stock, when you speak only of irrigating patches of 40 and 100 acres;—what would be the good of that? *Mr. Gatenby*, on the Lachlan, would be able to answer that question better than I can.
755. Did you not say, in answer to *Mr. Trickett*, that 40 or 100 acres would be all that they would irrigate. What I said was that, as to the good of doing that for feeding stock, some men who irrigate would be better able to answer that question.
756. *Mr. Watson.*] I presume you mean that a number of pastoralists would irrigate to get fodder for their working stock? Yes; I said for their horses, draught cattle, and stud sheep.
757. In any case, you do not contemplate supplying water for irrigating fruit-growing settlements, and so on? I think that would probably be adopted on a moderate scale, but I do not think there is any chance of its being adopted on a very large scale.
758. What are your main objections to fixed weirs, of which we have a model before us? The conclusion I came to was that any fixed weir would be chiefly objectionable on account of its obstruction to the flow of the flood-water, and the risk of making the river change its course in flood-time. What I wanted to explain a little time ago was that there will be a 9-foot obstruction. Supposing you have a 9-foot fixed weir, there is that obstruction constantly. The river will have to be flowing 4 or 5 feet over the top of that weir to make it navigable at all without using the lock. In the case of the movable weir, 9 feet of ordinary flow in the river would be sufficient to make the river navigable.
759. But you start with 9 feet permanently in the river, and an additional 5 feet gives you navigation over the lock with the fixed weir? There are some points in connection with navigation over the top of a fixed weir which seem to me very dubious, but I cannot state the whole case, because I have not gone into the matter fully.

WEDNESDAY, 10 MAY, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
The Hon. ANDREW GARRAN, LL.D.

The Hon. WILLIAM JOSEPH TRICKETT.  
WILLIAM THOMAS DICK, Esq.

JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Hugh Giffen McKinney, Principal Assistant Engineer, Water Conservation Branch, Department of Public Works, sworn, and further examined:—

- H. G. McKinney.  
10 May, 1899.
760. *Mr. Watson.*] Yesterday you stated that your principal objection to a fixed weir was on the score of erosion of the banks, consequent on the increased velocity in flood-time given to the water through a certain amount being dammed up? Yes; the raising of the flood-level for an inch or a portion of an inch on the weir would cause an increase in velocity. A very slight increase above the weir would cause increased velocity below it. It would cause a draw over it. Any obstacle in the way of the flow of the stream causes increased velocity, on the principle that the velocity is in inverse proportion to the waterway.
761. But that increased velocity, consequent on the water meeting an obstacle would be confined to the part immediately below the weir where the fall takes place? It causes a draw for a certain distance above the weir, but not far. It depends on the extent of the draw. Supposing there was a drop in the surface of the stream of 1 foot or 18 inches on the weir, that would affect the velocity to a very considerable distance, perhaps a quarter or half a mile.
762. In the scheme proposed, the lifts vary from 7 to 10 feet;—how far do you think the increased velocity would extend above the weir in that case? Very little; in flood-time it would be scarcely perceptible. At other than flood-times there would be a draw when the water was falling over the weir.
763. Still the ordinary velocity of the river would be very little just then;—with a small amount of water available at the in-take there would be very little going over? Yes; but the time at which the action of the weir would be greatest in affecting the velocity would be when there was a depth of 3 feet or so on the crest of the weir.
764. We will assume a weir 10 feet high, with water to the depth of 10 feet flowing over the crest of it, what would be the velocity above the normal rate 200 feet back from the weir? It would be increased.
765. Would it be materially increased? Certainly to such an extent that it would carry on any ordinary silt.
766. Would it be sufficiently increased to cause erosion of the banks? Yes; but that is a matter easily provided for. I presume the banks would be protected near the weir.
767. In this proposal it is intended to protect the banks below the weir, but not above? Of course there is much more necessity below the weir than above, because it is only at times when there is a great draw over the weir that there will be a need for protection above. When the river has very little water it will fall in a thin sheet over the weir; it will not have much effect either way. But when the weir is completely drowned—that is, a depth of 5 feet or 6 feet over the top, and just ready to start navigation over the top of the weir—the effect would be very slight. It is between the two that the effect will be greatest.
768. Do you think it would be necessary, in order to prevent serious erosion of the banks above the weir, to protect them with fascines, or some other kind of contrivances? That is really a matter that no rule could

could be laid down about, because the erosion which will take place above the weir will only be at certain times, and even then it will not be nearly so great as below; so that, supposing that there is a growth of gum saplings on the banks, that will be ample protection.

769. Would it be possible to provide that cheaply? Yes; in many cases it would be natural.

770. I think you stated that some tests made by yourself when the river was fairly high the highest velocity was 3 miles an hour? Yes; about that.

771. How high was the river then at any given point? I forget exactly what it was. At Bourke it was something like 27 to 30 feet.

772. Would it have been the same height at Wilcannia? It would have been lower at Wilcannia.

773. How much would it mean on an average in the bed of the river? Generally from 20 to 25 feet.

774. Would that be a little more than half the height of the banks, and would the velocity be 2 miles an hour? Yes.

775. Starting with the river having no obstruction, the flood got to a height of 25 feet and the velocity is 2 miles an hour;—suppose there were weirs damming the water back to a height varying from 10 to 6 feet, how much higher would that raise a flood of that description? It would be very small.

776. If it only raised it to a small degree, how much extra velocity would it impart to the water? A small fraction of a mile per hour.

777. Therefore, the increased velocity given to the water in an ordinary fresh would not be appreciable;—do you think it would be sufficiently appreciable to cause erosion of any character? I should say such erosion would occur only in places that were very susceptible of erosion. For instance, at a place where there was an overflow of the river. If there were a low bank and an outflow into a billabong, the bank of the billabong might be eroded to some extent. I am going on the broad principle that the probability is that there would be some erosion when the velocity of the stream went above what the material was deposited at.

778. What we want to get at is the reason for a tangible, definite objection to fixed weirs;—unless the erosion spoken of is one likely to be of a serious character, owing to the increase of velocity, we are hardly justified in taking that objection into account? I do not think there would be any erosion that could not be provided against.

779. Will there be any probable erosion that could not be provided against at a reasonable cost? I believe not.

780. So that that objection to fixed weirs would largely disappear? Yes.

781. The only other objection raised to a fixed weir is the delay in navigation? Yes; that is one objection.

782. What time would it take for a steamer and barge to go through one of the locks? I should not think it would take more than half an hour.

783. Do you think that would constitute a serious objection to the people engaged in navigation compared with the possibility of getting a permanent waterway? I do not; only the general rule is that people complain about very little matters, although it would be really no serious objection; at the same time, they might make it the subject of complaints.

784. There are seventeen locks;—so that it would take about nine hours' delay between Bourke and Menindie with fixed weirs? Yes.

785. Is such a delay a very expensive thing to a vessel? No; and the time they would be able to make would be much better, on an average, than at present. Going down they would not, but going up they would make better time. If the water was very low they would have good water and no current.

786. In any case, it would be a distinct advantage to be able to go right ahead with the certainty of water being there? Yes.

787. So that delay in navigation is not a very important factor? No.

788. Are there any other objections to a fixed weir which engineers hold? I do not think so.

789. So that at the most it amounts to a slight delay in navigation, and a possibility of erosion which would probably entail some protection to the banks at a reasonable cost? Yes. Of course the fixed weirs entail the making of the lock walls and the lock gates higher, and therefore it is a little more expensive.

790. Then, against these disadvantages, we have the advantage that it absolutely retains all the water possible? Yes.

791. I understood you to say that one reason why no experiment was tried with regard to the weir at Bourke was that there has been an agitation by people below the lock to have the water let down? Yes.

792. Why did they object to the retention of the water? I think their principal reason was not that they were in want of the water, but in certain places a quantity of mud collected, in which their stock were likely to get bogged. I understand that is a considerable source of loss when the river is low. They thought that by opening this they would have a fair supply of water which would prevent the stock from wanting to get into the channel.

793. Did they want a body of water for scouring purposes? No, merely for filling up, so that the stock would not have to leave the foot of the banks to get a drink.

794. So that there was no attempt to retain the water by the weir for any length of time? After that question was raised there was really no attempt made to make the gates tight.

795. Do you think that there is larger importance to be placed upon the irrigation part of this scheme than the navigation aspect? Yes; but that is in a great measure looking to the future.

796. If you were planning the scheme, you would do so with a view to providing for irrigation? Yes.

797. We have it in evidence from Mr. Darley that the amount of water retained by his proposed weirs will be practically about sufficient for navigation? There is a return which shows that the uppermost pool of these weirs will hold a sufficient quantity of water to fill one lock 4580 times.

798. What is the holding capacity of any of the pools, or of the upper pool of these series of locks? The capacity of the upper pool is 1,905,150,000 gallons.

799. That is the capacity of the pool available for lockage? Yes.

800. Have you calculated how many lockages that will permit of? Yes, that amount is 4,580 times the capacity of a lock.

801. In that have you made any allowance for evaporation? That does not take the evaporation into account. The evaporation would have to be deducted.

802. Mr. Darley, in his evidence, said he anticipated that even in the worst period there would be a sufficient flow in the river to make good the evaporation;—do you think that would be so? Yes.

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803. Do you think there would be enough to make good 60 inches per year, even in the worst time? In the worst time the river below Bourke has been known to stop flowing.
804. How long at one time? I am not quite certain; but I think it was two or three months—it might have been more.
805. During those two or three months, would not evaporation make serious inroads on the water stored? Yes; it might be  $1\frac{1}{4}$  feet.
806. Would not that make a considerable reduction in the quantity available? Yes; but even then the quantity remaining would be very large. That is only the capacity of one pool.
807. What is the depth available for lockage: say, first, above the weir; second, at the head of that particular pool? This is allowing for 6 feet.
808. At the head of the pool? The top part of the pool, 6 feet in depth, measured from the top of the weir downwards. That leaves all the dead water behind the weir under that 6 feet.
809. What is the decrease in the height of the water at the head of the pool with a certain number of lockages? To cause a decrease of one-eighth of an inch in the depth of the water, six lockages would be sufficient; 51 lockages would reduce the level by 1 inch; 152 lockages would reduce it by 3 inches; 305 lockages would reduce it by 6 inches; and 610 lockages would reduce it by a foot.
810. Mr. Darley said in his evidence that in his opinion the amount of water retained by this series of weirs would be sufficient, but not much more than sufficient, for navigation purposes? That is in very dry seasons.
811. Have you had any opportunity of going into the probable cost of erecting these weirs? No; I did not go into the question of the designs at all, so that anything I say with regard to the designs is said on the spur of the moment.
812. Will the raising of the weirs 1, 2, or 3 feet, and a proportionate raising of the other works, involve any extraordinary increase in the expense, and if so, in what approximate proportion? I cannot say as to the probable increase in the expense. If the weirs were raised to any considerable height, of course it would necessitate rather unwieldy lock gates.
813. What would be the highest practicable lock gate in conjunction with a weir of proportionate height? I cannot say. Nowadays they are building lock gates of tremendous height in some places in connection with ship canals. I would not like to say whether the circumstances would warrant the cost of such lock gates on the Darling. It is a matter I have not gone into.
814. Can you offer an opinion as to whether the increase in the height of the weir by 1 foot would materially increase the cost of the work? No, I do not think it should involve any very great increase; but I should not like to say what the increase would be.
815. Have you any data to estimate the quantity of water which would be held within the river banks up to any given height between Bourke and Menindie? Yes; I have got the quantity made out approximately.
816. At what height? I have got it made out to 1, 2, and 3 feet. I took the same width of the river in each case. Of course we do not know exactly what are the slopes of the banks without trying each case, and to get an average would entail more work than the circumstances would warrant, so that I have taken the same width all along.
817. Have you a statement showing how much additional water would be held if the weirs were raised 1, 2, or 3 feet? Yes; the additional quantity of water that would be held up if all the weirs in this scheme were raised by 1 foot, would be 3,762,000,000 gallons. As I took the same depth I did not allow for the slope of the banks. I took 2 feet double, and 3 feet treble. For 2 feet, 7,524,000,000 gallons; for 3 feet, 11,286,000,000 gallons.
818. If the first is correct, the two latter will be slightly greater owing to the receding of the banks? Yes.
819. Why I wanted you to prepare that estimate was with reference to irrigation prospects;—assuming that Mr. Darley is correct in saying that approximately the scheme under consideration will be sufficient only for navigation, do you think that the raising of the weirs 1, 2, or 3 feet would be of material advantage from an irrigation standpoint? Undoubtedly it would.
820. Can you give any idea roughly as to what area of land that quantity of water would serve per year if properly applied? If the weirs were raised 1 foot all along that quantity of water that I have mentioned would be equal to a depth of 1 foot for an area of 13,818 acres.
821. That would not be sufficient for irrigation? It would not for certain things; it would be better to allow more than that. At the same time, with what little rain they get, an occasional flooding is as much as they would want.
822. Supposing we had 10 inches of rain there on an average, and 12 inches of irrigation, would that be sufficient for an ordinary crop? Yes; if the rain came in a seasonable time. If you had to depend on that water altogether, and allow for all the losses in distributing it, instead of taking 13,000 acres, you would want to take 7,000 or 8,000 acres.
823. Making all allowances, you think the raising of the weirs 1 foot would allow of the retention of sufficient water to properly irrigate 7,000 acres? Yes.
824. What would be the increased cost of raising the weirs to that height? That is a matter which I have not gone into.
825. Do you think that the raising of the weirs and the other works to that height would make any appreciable difference in the resistance to the current, or that it would increase the flood-level;—would there be any objection, from an engineering standpoint, to the increase of height apart from cost? It would to some extent increase the risk from erosion, but I think that could be provided against at no great expense.
826. The risk of erosion would not be very great, owing to the low rate of velocity? Yes; that is one great point in favour of the Darling. It lends itself particularly to canalising.<sup>1</sup>
827. Do you think raising the weirs and locks by 3 feet would make any appreciable difference with regard to obstruction and raising the flood-level? It would necessitate the protection of the banks for some further distance. Below the locks, particularly, and inside the banks, there would be a considerable rush with 3 or 4 feet of water passing over the weirs, but I do not see any reason why it should not be practicable to provide against that.
828. Have you gone into any calculations to see whether the scheme as proposed at the present time will allow of any margin that could be used for irrigation purposes? Not in connection with this scheme.



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829. Had you some scheme in hand previously with regard to the locking of the Darling? Yes, above Bourke.

830. You never went into a detailed survey below? No; I had a number of sites surveyed for weirs.

831. Therefore, from the irrigation standpoint, you are not certain that this would provide for it? I know, from the discharge of the river, that in any fair season there is a fair quantity available for irrigation. Of course, in a bad season like this, the quantity is very small, but this is not an average season.

832. Is not the chief thing to be provided for in an irrigation scheme permanency and efficiency in all possibilities of drought? Yes; but, on the other hand, in the case of people who irrigate for fodder for their stock, they can afford to have a bad season just as well as people who depend upon ordinary seasons.

833. But could you get any great development of irrigation unless you could give a guarantee of water? I do not think so; but for ordinary fodder crops they could irrigate in five seasons out of six on a moderate scale.

834. Do you think that irrigation development from a future standpoint would be sufficient to justify this large expenditure? No. As to the financial aspect, I have already said I do not see any prospect of getting a large direct return.

835. When your Department was considering the desirability of providing facilities for irrigation on the Darling, did they test the soil to see if it was suitable for irrigation? I do not think the Department has, but we know there are patches of irrigation at intervals all along, and I do not think there would be any difficulty in finding much more land suitable for irrigation than there would be water to irrigate with.

836. The only reference I can find in Colonel Home's report touching on the Darling basin with regard to the quality of the soil is where he speaks of the class of soil proposed to be irrigated at Menindie, and there his opinion is distinctly unfavourable? There is very little of that kind of soil on the Darling.

837. Does it not seem a proper thing that when the Department is investigating irrigation possibilities they should look to the soil first to see what it will do if water be applied to it? We have instances right along the Darling, almost from the Queensland border to the Murray, where irrigation has been carried on successfully.

838. But is that a guarantee that there would be miles more available, unless your officers went over the country to find out? No, but there was no intention of the Government taking up irrigation.

839. But if they provide the water, should they not first know whether there would be a possibility of some one settling on suitable land in order to use the water;—has not the question of providing water been before the public and the Department for a long time? This question of locking the Darling has been before them repeatedly.

840. As far as you are aware, has there been any attempt on the part of the Departments to find out the character of the soil which would be contiguous to these proposed locks? I do not think so. Of course it is a matter for the Agricultural Department to take up.

841. I should think the Minister should be satisfied as to the quality of the soil before he considered the possibility of locking the river from an irrigation standpoint? We know the productiveness of the land at intervals all along, and we know the way it responds to rainfall, and there is no reason to suppose that it would not respond to the use of river water just as well.

842. From what I can learn irrigation is of no value on land which has not got a free subsoil; you cannot put on water from an irrigation channel in the same delicate and masterly manner as the rain of Heaven falls? It cannot be put on so evenly.

843. *Mr. Trickett.*] Does not Colonel Home in his report say that the land at Menindie is very unsuitable? Yes; it is hard clay with nodular limestone. That land near Menindie is really high scrub country. I do not recollect seeing any land along the Darling like it—certainly the high red land near Bourke is not like it. That is really a chocolate loam.

844. *Mr. Watson.*] Is the land near Menindie and Wilcannia not like the land at Bourke? There is very little land resembling it. That patch at West Bourke is red soil.

845. *Dr. Garran.*] Has the Department ever sunk a pit along the banks of the river to test the soil? The Public Works Department has never tested the soil.

846. Has your Irrigation branch made any investigation as to the suitability of the soil between Bourke and Menindie for irrigation, or have you ever sunk a pit? No; but we consider the evidence of actual experience showed that there was no doubt about the subject.

847. *Mr. Watson.*] The evidence, seeing that it only relates to patches, would not prove that any large portion of the land was of value for irrigation;—it would only amount to an assumption on your part? The case is simply this: Under any circumstances, with regard to the land within a moderate distance of the Darling, I do not see any prospect of more than 1 acre in 500 ever being irrigated for a very long time. That being so, there is a great deal of choice as to what should be irrigated.

848. Has not the Department simply gone on the law of probabilities? The view which the Department took was simply that, as rainwater will make crops and grass grow very favourably, the river water ought to do the same.

849. Is it not a fact that some land which will grow fair crops with a medium rainfall will not grow similarly good crops with irrigation? I never heard of any instances of the kind.

850. I am informed that some land, through having a clay subsoil, will not do well with irrigation, whereas the same land, with a light regular rainfall, would do well? That is a case where the fault lies with the man. I know a man who laid out a large sum of money for an irrigation plant, and he started irrigating clay soil which had no subsoil drainage, and which had no get-away for the water on the surface. He grew crops of rushes, and he proclaimed to his neighbours that irrigation in New South Wales was a failure.

851. Would it not be more expensive to irrigate land of that character? Land of that character should never have been irrigated.

852. Does not that seem an additional reason why the Department should ascertain what proportion of land along the banks of the river was suitable? It would have been a very expensive matter, and outside the functions of the Department. I consider it is sufficiently certain that there is a very large area of land there suitable for irrigation, and that the people actually on the land can be safely left to decide what those portions are. It is their special business.

853. But when you were in the Department of Mines and Agriculture and that Department had the matter of irrigation in its hands, I should imagine that it would have dealt with the question of the suitability

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suitability of the land, because that is a matter of policy which the Minister would have to consider? It would have been a good thing for the information of the public, no doubt, to have sent an officer of the Agricultural Department, who knew soils well, to report. The only place where I know of that having been done was at Wentworth.

854. What was the idea of erecting the Bourke weir singly? There were several points. There had been an agitation for a good while on the general subject of the locking of the Darling. One point that weighed was to have one constructed tentatively. In fact, under almost similar circumstances, the construction of a lock was undertaken many years ago near Wentworth. The money was actually voted for it. I think the construction of the lock was almost ready to be started when something occurred to stop it. In that case, too, one great consideration that weighed was the matter of having one lock constructed as a beginning. Then Bourke was selected because of several reasons. One idea which the Railway Commissioners favoured was that if one lock were constructed there, and was satisfactory, the river should be locked above Bourke to bring the traffic down to the western railway. Another reason was, that the river there falls very low, and that it would be an advantage to the town to have a better depth of water.

855. Was it largely in the nature of an experiment? Yes; that was a point which certainly weighed in the decision in favour of it.

856. Was there any mention made of the possibility of a portion of the water retained by that weir being used for irrigation purposes? Yes, there was that idea. In fact, the place I have mentioned at West Bourke is very favourable for irrigation. It is one of the best places on the river.

857. Has any application been made to the Department to secure water for irrigation from the weir? No.

858. How far do you think the Bourke weir has proved the practicability of locking generally? I think it is a success. Of course there is that point against it of the leakage between the shutters.

859. Apart from that, can you inform the Committee how far the water was backed up by that weir? It was backed up almost to the top of the shutters, or just exactly to the top of them.

860. How many miles did it throw the water back? About 38 or 40 miles. It made it navigable to about 25 miles above Bourke.

861. Was there any considerable quantity of water going through the weir at the time it was holding it back? Yes; there was a pretty fair flow.

862. Latterly I understand that the shutters have been simply lying down? I think the water has been allowed to flow off.

863. There was no encouragement given to the people to expect the use of the water behind the weir owing to the shutters being down? We received no application for the use of the water near Bourke.

864. Do you remember the period when the shutters were put down with a view of letting the water run? I do not remember the exact time.

865. Was the river below the weir low then? Yes.

866. How much water was retained by the shutters before the water was let go? I cannot really say. We have got records, but I cannot say exactly as to that point.

867. Was the weir, just prior to putting them down, holding the water to any extent? Yes.

868. What height of water do you think would be behind the shutters when they were let go? Judging from a diagram which I have, there was 2 or 3 feet difference between the two. That was at the extreme low point.

869. What is the height of that portion of the shutters where the opening is made? The space between the shutters at the upper part is 2 inches.

870. The shutter was designed to hold water at a height of about 4 feet above the sill? No; we expected the quantity of water flowing down would always be sufficient in a time of low river to stand level with the top of the shutters. So it did until this extremely low river came.

871. *Chairman.*] Did you expect the natural flow above would compensate for the leakage? Yes; for the quantity that passed through the spaces.

872. *Mr. Watson.*] So that the shutter should back up for the whole of its height? Yes; and so it did until the river fell so very low.

873. At some period the river fell so low that the water coming in did not compensate for the leakage, and therefore the water retained went down to the level of 3 feet? Yes; the river fell lower than it had been for thirteen years. There is one point I should like to explain with regard to what Mr. Watson asked yesterday, it was about the question of silt accumulating at the upper end of the lock. I had not looked into the action of weirs of this kind at the time, and I could not come at the point I wished to explain. The best way I can state what I meant is this: In the case of movable weirs, assuming an unlocked river, it would have taken a height of 9 feet at Bourke, before the shutters would have been put down and the river would have been open. On the other hand, in the case of fixed weirs, it would take a height of 14 or 15 feet at Bourke before the navigation would commence to go over the top of the fixed weir. It appeared to me that small freshets coming down in that interval between the height of 9 feet and 14 or 15 feet would be likely to collect silt at the upper end of the lock in connection with a fixed weir. But on looking into the matter—and I looked carefully into the question last night—I see no reason to doubt that the sluices in the lock gates would be sufficient to carry off any silt that might accumulate in the weir.

874. You do not think there is a probability of the accumulation of silt? No. I think that with the aid of the sluices in the lock gates where there is a fixed weir that silt could be scoured away so as to prevent it causing any trouble. There was a point in reply to a question put by Dr. Garran as to whether the Government or any persons had the power to shut off water for a time, and whether that would not ruin any irrigation scheme. I do not think I made my meaning clear about that matter of the Minister retaining power to limit irrigation in a case like that of the river Darling. The idea is really to establish a rotation that would enable every one who had the right to irrigate to irrigate to a certain amount—that is, to limit the amount of irrigation, but it need not necessarily ruin it or stop it. A man might have the right to pump for two days in the week, and during that two days he might be able to irrigate a considerable area. He could irrigate one patch the first week, and he could irrigate a second patch the second week, and a third patch the third week. In the fourth week he could go back to the first patch again, and so keep his land properly irrigated by using the water only two days a week. That is the way in which all irrigation canals are managed.

875. *Mr. Trickett.*] There is one point I cannot understand, although Mr. McKinney has explained it more than once. He says that when there was a body of water flowing down it went over the weir, and the leakage did not matter. Seeing that this was an experimental weir, I cannot understand why directly the water became lower than the top of the movable weir it was not made into a weir which would keep the water back? I may say that I would not have been disposed to comply with the request which was made to let off the water, because the people were really no worse off than they would have been if there had been no weir at all.

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876. *Mr. Watson.*] Still, the Minister thought it was wise to let the water go? It was decided to let the water go. There is another point which, perhaps, I had better mention in connection with a question asked by Dr. Garran. I think part of my answer was not heard. The question was, whether I thought nothing would be produced by irrigation except what was wanted for local consumption. The answer is simply "Yes." I made a qualification that, to a certain extent, there might be export, in a small way, of fruit, either fresh or dry. For this reason, that there are certain kinds of fruit which can be produced at Bourke several weeks earlier than on the coast districts. Another item would be dried fruits. That is looking a great deal into the future. There was another question I was asked about—the fall in the Willandra Billabong. I stated from memory that I thought it was from 120 to 130 feet. I find, on looking up the matter, that it is nearly 180 feet. I found that it would be possible to take the water of the Lachlan to the Darling, as far as the fall of the country is concerned, but it would not be practicable, on account of ridgy country intervening.

877. *Dr. Garran.*] I wanted to know the height between the two? I know there are ridges that run up to 30 or 40 feet above the slope which would have to be cut through.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and examined:—

878. *Chairman.*] The proposal before us is to construct locks and weirs on the Darling, south of Bourke;— can you give the Committee any idea as to how the Railway Commissioners view the proposal from a railway standpoint? Their opinion is that it would not be any advantage to the railways; on the other hand, it would be a disadvantage.

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879. Is the idea of its being a feeder to the railway erroneous? Yes, in their estimation.

880. Would it be a sucker? Yes.

881. I think, before a former Committee, you stated that, by constructing a weir at Bourke, you would secure the whole of the traffic above Bourke for the Bourke railway? I did not say that we should secure the whole of the traffic, but that it would tend to give it to us.

882. You stated that, as far as you could ascertain, none of the traffic passed Bourke? No; not under existing circumstances. How far the existence of the weir at Bourke has contributed to that I cannot say. I do not think it has, personally.

883. Was that evidence given before the lock was constructed? Yes.

884. Is it your opinion that if you construct locks and weirs on the Darling, the goods, once they are on board the steamer, will continue to be carried all the way down the Darling even if a railway is constructed from Cobar to Wilcannia? Yes.

885. They will not be transhipped, and therefore your railways will lose by the construction of these locks and weirs? Yes.

886. Have you gone pretty closely into this matter? No; I only speak as a matter of experience as the river stands. My opinion is that if the river is improved in the direction of what we may regard as rival ports or centres of exchange, the disposition to go in that direction must also increase.

887. Therefore any river-borne traffic will go out of the Colony? Yes; my impression is that with the whole course of that river locked, and with permanent navigation provided, we should get very little traffic at Bourke.

888. Is the competition pretty keen for traffic in the other colonies? Yes; exceedingly keen.

889. Have the other colonies a system of rebates? Yes.

890. Can you give the Committee an idea as to how far that system extends into our territory? Over the whole of the Murrumbidgee. It extends throughout the whole of western New South Wales and south-western New South Wales. Its actual operations are confined to about 200 miles above Wilcannia and to the Murrumbidgee, and of course the Murray.

891. Does the whole of the traffic on the Darling find its way into South Australia, and on the Murrumbidgee and the Murray into Victoria? The Darling traffic chiefly finds its way to South Australia.

892. Does that always occur when the river is navigable? Yes.

893. So that if we lock the Darling we shall permanently lose the traffic? Yes.

894. Is that your firm opinion? Yes.

895. At the present time when the river is navigable, are you aware of any case where goods are sent round from Sydney to Adelaide and on to Bourke? Yes; large consignments of beer have been sent to Bourke from Adelaide through Sydney. We have had to make special quotations to secure that business at Bourke.

896. So that when the river is navigable it has occurred within recent years, and it is sure to become permanent if these locks and weirs are constructed? Undoubtedly.

897. Was it always your opinion that that would occur? Yes, it has always been my personal opinion—that is, anywhere south of Bourke.

898. Then, you do not think that, in the interests of your Department it would be desirable to construct these locks and weirs? I do not.

899. At page 12 of the report of a former Committee on the construction of locks and weirs, I find the following question and answer:—

Are you authorised by the Commissioners to make any definite statement to the Committee that it appears to them that there should be some sort of auxiliary like this to enable them to command the traffic? No; I am authorised to say that they regard any improvement of the internal waters in the direction proposed as a very desirable thing.

What do you say to that? The direction then proposed was above Bourke. I am still prepared to say that that is an improvement.

J. Harper. 900. What I want to get at is this: If you put a lock at Bourke, it is a desirable thing in the interests of the Bourke railway traffic;—would not the same thing occur if you had locks and weirs below Bourke, in order to secure the traffic at Wilcannia, if a railway is made there? No, because at the time of the previous inquiry, it was a question of providing a means of access to the railway for the people about Walgett and Brewarrina; and it was really a question whether those districts would be better served by locking the river and making it permanently navigable to reach a constructed line, than to build other lengths of railway line. That is how that that question came to be answered.

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901. Would the same explanation fit in with Question 258—

I presume you would not advocate the locking of the river below Bourke? That question has not entered into consideration. The Railway Department have advocated the locking of the river as far as Wilcannia.

? That was not my opinion personally, as I have said.

902. Was it the opinion of the Department at that time, that if the river were locked to Wilcannia, the railway would take all the traffic? That is when we first opened the railway to Bourke, and we had rather indefinite ideas as to what would happen.

903. This proposal is to erect locks as far down as Menindie, and we have evidence to the effect that that would not render the stream navigable except between Bourke and Menindie. Below Menindie there would still be obstruction. What I want to get at is this: Supposing we locked the Darling to Menindie, and there are points below Menindie where navigation would be obstructed, would the traffic be diverted to Sydney? I could not conceive such an intolerable condition of affairs as that the locking should cease to exist below Menindie.

904. That is the proposal? As to the nature of the proposal I have nothing to say. But if the existing highway on the lower reaches of the river is to continue, it does not seem to me to be a fair thing to the people using it that they should be obstructed below Menindie. I fancy that the Federal aspect of the question would come in there.

905. Do you think that might effect it? I think it would.

906. How would that affect the railway traffic? I have not studied that.

907. Suppose the Colony of New South Wales constructed these locks and weirs within a short time, then the Federal Government would take the matter up, if we had a Federal Government? That is another question I cannot answer. That is still in the throes of the future.

908. I think that when Mr. Kirkcaldie held your position, he seemed to favour this scheme of locking the Darling? I do not think he did below Wilcannia; and his impression of locking the Darling to Wilcannia was formed when the railway was first opened to Bourke; in fact, I think before we reached Bourke.

909. Then in the light of the experience gained by the Commissioners, are you distinctly of opinion that in the interests of the railways, the locking of the Darling would be a mistake? Yes; south of Bourke.

910. *Mr. Watson.*] Even north of Bourke, with the Brewarrina railway? Yes; when the railway is constructed.

911. *Dr. Garran.*] I have some recollection of evidence, either by you or Mr. Kirkcaldie, to the effect that one year wool from a station of Mr. Wentworth, above Bourke, went down the river instead of by railway? Yes; a station out on the Paroo. But there were circumstances connected with that which were absolutely special. It arose out of pique rather than anything else. We have to adopt a certain dividing line, where two rates are established for the purpose of competition. This station was situated in a unique position. It was divided by this river, and they asked to have the concession given to them which was given to the stations lying wholly west of that line. The Commissioners of the day could not see that it would be consistent to concede to that particular station what was not conceded to other stations which had all their country to the east of that line.

912. Has the same thing happened since? No; we get all the wool now.

913. At the present time you do not lose anything above Bourke? No.

914. When the river is in flow do you consider that you get half the trade for the railway? Above Bourke we get the whole traffic. By giving specially low rates we get 75 per cent. of the merchandise.

915. It was given in evidence the other day that, supposing a railway from Cobar to Wilcannia were made, and the river were navigable, the railway would get half the trade from Wilcannia;—do you think it would? It would be absolutely impossible.

916. Your line to Wilcannia would be a longer line than to Bourke, therefore your mileage rates would be higher? Yes.

917. Therefore, practically speaking, your freight would be higher, but the transit down the river to Wilcannia would be less than from Bourke;—therefore the river freight would be a little cheaper from Wilcannia than from Bourke? Yes.

918. Therefore, you would be competing with steamers, which would be carrying at lower rates than you are carrying from Bourke, and you would have a longer line, and therefore the competition would be severe, and against you? Yes.

919. So that your experience gained at Bourke leads you to think that, to get an equal proportion of river trade at Wilcannia, you would have to cut lower still? Decidedly.

920. You do not think you would get anything like half the trade? No.

921. Supposing the river to be navigable six months in the year, during the unnavigable time you must trade at your lowest possible rates? We cannot vary our rates.

922. Could you have summer rates and winter rates? No.

923. Then whatever competition compels you to go down to, you would have to maintain it permanently? Yes.

924. Therefore, even if you had a monopoly of the trade during three years drought, you would still be running at rates fixed by the severest competition? Yes.

925. Would you have more chance of getting up-river trade in stores than the down-river trade in wool at Wilcannia? Certainly not.

926. It makes no difference as far as you are concerned? No, the one would be the corollary of the other. So far as the goods up-stream are concerned, the steamers can carry them practically for nothing, in order to get the freight on wool.

927. But do not storekeepers like to get their stores several times in the year? With perishable goods that is immaterial. But in the case of galvanised iron, wire, and station supplies, it is quite usual to hold a large stock

- stock at Bourke, even with the railway there to-day. You could get interesting evidence from Rich & Co., J. Harper, as to the stock they carry at Bourke.
928. You cannot vary your rates for up trade or down trade, because you have the same competition to deal with? Yes. 10 May, 1899.
929. You say you get all the trade from above Bourke;—if there were a line to Wilcannia, would you get all the trade above Wilcannia? No; at Wilcannia the competition by river would be keener, and the circumstances would probably differ altogether. At Bourke we have been able, until recently, to obtain the whole of the southern Queensland trade at that point. Lately, by the imposition of border duties, it has fallen off, and our circumstances even at Bourke will not be so favourable for competition as they have been.
930. Supposing the idea which the Commissioners first favoured of completing the railway to Broken Hill had been carried through, would there be any risk of the trade going by way of Port Pirie? No; it would go by river.
931. If the river were closed and a storekeeper at Wilcannia had to decide as to whether he would get galvanised iron from Port Pirie or from Sydney, do you think that Port Pirie would have the choice? It would never come from Port Pirie by railway; it would come by Murray Bridge, Echuca, or Morgan.
932. Supposing the river were not navigable, and there were a through line from Sydney to Port Pirie, which railway would have the better chance of supplying Wilcannia? The goods would go by the shorter mileage, undoubtedly.
933. You think Port Pirie would have the advantage? Yes.
934. With a through line of railway from Sydney to Port Pirie, would the effect be to send the Wilcannia trade to Port Pirie rather than bring it to Sydney? Yes; the advantage would be in favour of the shorter distance, subject to such small variations as might arise from a difference in port charges.
935. What extent of mileage do you think the break of gauge would be equivalent to? I cannot say.
936. Could you say whether it is equal to 50 miles? No.
937. It has never been decided? No.
938. Even the break of gauge at Albury is a little in favour of our railways? Yes.
939. You do not know how much? No.
940. Supposing even on national grounds if it might be desirable to make a railway through to Broken Hill or lock the Darling, in neither case would it benefit the treasury of our railways? No.
941. Not even the indirect advantage from increased settlement? No. I cannot see how we can promote settlement with a railway to a point so distant from a port as against river competition.
942. The traffic is bound to take the shortest and cheapest route? That is our experience.
943. You have a great range of mountains to climb, which is all against you? Yes.
944. Looking at it exclusively from a financial point of view, you are not very hot to see this river locked? No, not from a railway point of view. From a national point of view, I have not studied the question. It might have advantages in the form of irrigation that I do not know about.
945. If you do not catch the Wilcannia trade, do you get at Bourke any of the north-west trade from Milparinka and Mount Browne? No; it does not come to Bourke.
946. Is there not a regular stock route with wells sunk from Bourke to Mount Browne? I cannot say; there is from Wilcannia to Mount Browne.
947. How far north-west of Bourke does your trade come in? We have the trade of the stations with a frontage to the Paroo down to about 50 miles south of a line from Bourke? West of that we get nothing.
948. West of the Paroo you do not get much trade? No.
949. *Mr. Trickett.*] Have you been making any special inquiries with regard to this investigation? No.
950. *Chairman.*] At the time the construction of locks and weirs on the Darling was before a former Committee, had the railway extension from Byrock to Brewarrina been sanctioned? No.
951. You then preferred taking over the cost of the lock and weir upon the river, to taking over the loss that would be incurred by constructing that line? Yes, that was my opinion, and so it is still.
952. Since the lock has been constructed at Bourke, has the river above Bourke been made use of extensively by the steamers? I cannot say.
953. Do you know how the traffic reaches Bourke, whether by teams or by the river? That depends upon the seasons. The weir has not had the effect of making the river navigable to Brewarrina.
954. Has the weir had any effect upon navigation, so far? I cannot conceive how it can; it did not throw enough water back.
955. So that from that standpoint it has been a failure? I should imagine so. As a matter of reason, I should say it has not had the effect of improving the navigation between Bourke and Brewarrina. I am confident it has not made the river navigable, when it would have been otherwise unnavigable.
956. *Mr. Shepherd.*] With reference to the effect that the extension of the railway from Cobar to Wilcannia will have, I should imagine from what you have said that it will still further rob the railway of traffic? Yes, that is my impression.
957. That is, it would draw traffic to the river which now goes by the railway from Cobar? Yes; either it would do that, or we should have to make prohibitory rates. I do not know what rates we could make.
958. You have already, in previous evidence, shown the advantage of the river over the railway, as far as rates are concerned;—if the river were locked and made permanently navigable, would the river inflict a still greater injury on the railways? Yes. There would be another element; there would be a greater certainty of transit, and the steamers would be able to make the trip in a shorter time.
959. We have also had it in evidence that insurance on the river is much greater than by the railway, and that that would cause the preference to be given to the railway;—do you think there is anything in that? No, absolutely nothing. The insurance is not more than 25s. per £100. That expressed in railway freight amounts to nothing.
960. So that that would make no appreciable difference as far as the railway is concerned? No; the insurances are a varying quantity. Insurances are sometimes made from the wool on the sheep's back to London.
961. *Chairman.*] If the river is rendered permanently navigable, have you no hope of successfully competing with it? No. Whatever insurance is paid would then necessarily become lower.
962. Would it be impossible for the railway to compete with the river traffic? Yes.

- J. Harper. 963. Do you think you would lose the Bourke traffic if the river were made permanently navigable? We should either have to lose it, or so reduce our rates that they would be absolutely ruinous.
- 10 May, 1899. 964. *Mr. Shepherd.*] If the river were properly snagged and made navigable, would the insurance be so great? No; the insurance is greater now on account of the danger from snags.
965. *Chairman.*] Before there could be any chance of your competing with the river traffic, would there have to be almost prohibitive river dues? Yes.

THURSDAY, 11 MAY, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
The Hon. ANDREW GARRAN, LL.D.  
The Hon. WILLIAM JOSEPH TRICKETT.

WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.  
ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Charles Louis Shainwald, Inspector of Branches. Messrs. E. Rich & Co. (Ltd.), Sydney and Bourke, sworn, and examined:—

- C. L. Shainwald. 966. *Chairman.*] How long were you residing in the Darling district? Since 1882.
- 11 May, 1899. 967. Have you had an opportunity of observing the flow of the river? Yes.
968. Have you had any opportunity of observing the effect of the lock already constructed at Bourke? No; I cannot speak with any degree of confidence about it.
969. Has it had any effect upon the volume of trade coming into Bourke? I do not think that this particular lock has had any material result on trade, because the immediate effect of the one lock is only to conserve the water for a distance of about 25 miles.
970. So that the one lock would not enable you to judge of the effect of locking the river? Not the trade effect of it.
971. Was it anticipated that by locking the Darling at Bourke pretty well the whole of the trade above Bourke would be water-borne? I do not think so. I think it was anticipated that if the river were locked over the whole distance the trade would flow to Bourke.
972. If the river is locked, say, to Wilcannia, would the trade flow to Bourke from as far south as Wilcannia? Only at such times as the river was not navigable below Wilcannia.
973. In your opinion, would it be wise to lock the river from Menindie upwards, and to leave the portion below Menindie without locks? The locking of the river from Menindie to Bourke would induce that trade to go to Bourke and to the railway line ending at Bourke, while the river below Menindie is not locked, or while the river below Menindie is not navigable. The effect of locking the Darling from Menindie upwards would be like closing a gate to the flow of the river from Menindie downwards.
974. Suppose the river were tapped by a railway below Bourke, and the river were locked, what would happen, say, at Wilcannia? The trade would then find its cheapest channel. It would then be a matter of freight.
975. Is there any quantity of goods going round from Sydney when the river is navigable for Bourke or other stations on the Darling? A certain amount; but I have not the papers before me at present.
976. If it was contemplated to put tolls on the river, can you give us any idea what would have to be put on to enable the railways to compete for the trade? I cannot give that opinion unless I know what the railway is going to charge.
977. The railway people say that they are now charging as low as they can? I understand you to mean, that if the railway were at Wilcannia, what rate would it be necessary to impose on the river in the shape of tolls so as to enable the railway to compete with the river.
978. Suppose the river is locked throughout and made permanently navigable, would the trade then go down the river? I think it is unquestionable that the trade will go to South Australia.
979. Do you think the Railway Commissioners could not reduce the rates so as to compete with the steamers? Not in my opinion.
980. With reference to another aspect of the case which is not contemplated just now;—this proposal deals more with navigation than with irrigation;—suppose that a sufficient quantity of water were stored to irrigate, is there much land about there which could be profitably cultivated? Immediately along the banks the soil is of black alkali. As far as my meagre knowledge of agriculture goes, I do not think that the bulk of the land is suitable for agriculture. There are sections of the river composed of red, loamy soil which is very good; but immediately on the river banks the land is black soil in many places.
981. Has any cultivation been attempted there? Yes; there has been cultivation at Louth, Winbar Station, and close to Wilcannia, at Murtee.
982. Did not the Government select some red soil as an experiment? Not on the river, but close to Bourke at the Pera bore.
983. With what result? As far as results have been reached, it is rather difficult to form an opinion. The first results appeared to be very good, but I understand that at present they do not look very bright.
984. Is that owing to something in the water? There is a great difference of opinion amongst the people. Some consider it is due to a shortage in the supply, owing to some trouble with the bore. Others consider that it is essentially due to the nature of the water.
985. Has any analysis been made of the soils there? I think so.
986. Was the red soil chosen in preference to the black for an experiment? I cannot say for a certainty, but I should think so.
987. Have you mixed with any people at Bourke who have a knowledge of agriculture? I think there are very few practical men there of large experience.
988. Is it a fact that they generally select the red soil in preference to the black for agriculture? Yes.
989. *Mr. Dick.*] I suppose you know the general outline of this scheme? Yes. 990.

990. Can you give the Committee an opinion as to the effect upon trade of the unreliability of the Darling as a natural highway? The effect of the uncertainty of the river in its natural state is to make the living of the inhabitants there very difficult and expensive. They cannot tell from one month to another when they will get a river. Consequently they have to provide as far as they can in advance; but all experience has proved that even that provision is not sufficient. The merchants in Wilcannia have endeavoured, as far as possible, to provide by putting in very heavy stocks when there is a river; but their precautions have not been nearly sufficient. During the last three years, I do not think the river at any one time has been navigable throughout its length for any certainty for two months at a stretch. That is an unusual experience. In the evidence which I gave before about the locking of the Darling from Bourke to Brewarrina, I prepared a return which showed that, taking the average for fourteen years, the river was navigable for just half the time. But that average is very misleading, because I showed that in 1890 the river was navigable for 360 days out of 365, while in 1884 it was navigable for only twenty days out of 365. There is no dependency on the river for traffic purposes.

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991. One result of that would be that the price of goods in some years is very much increased? Yes.
992. Is the insurance on river-borne goods rather high? Compared to ocean rates it is very high.
993. We have been informed that it is the practice in the case of wool to insure from the sheep's back to the market;—does that prevail in the district? As far as I am aware the practice of insuring from the sheep's back to the market does not cover the river risk. That is a special charge.
994. What is the general charge for insurance upon river-borne wool say from Wilcannia to the ocean port? I think the rate at present is 25s., less 20 per cent. At the present price of wool that would make it pretty high. At present it would be worth, scoured, £175 per ton.
995. Would that be a matter to be seriously considered in the question of rival routes by river or rail? Yes; that would be entirely absent in the case of a railway.
996. Supposing the river were locked from Bourke to Wilcannia, how much of the trade, say in wool and stores and machinery in the district lying between Bourke and Wilcannia, would be directed towards Bourke? You would have to take other conditions with it. It might be assumed that at the time the river is not navigable from Wilcannia below in its natural way, and that the river is locked from Bourke to Wilcannia. In that case the whole of it would go to Bourke. If the river is navigable from Wilcannia below, certainly no more trade than that from Tilpa would go to Bourke. That is about half-way, 115 or 120 miles to Bourke by road, and  $2\frac{1}{2}$  times over that by river.
997. Then the amount of trade to be obtained at Bourke from this proposal would be a varying quantity? Yes.
998. Would it depend upon the state of the river below Wilcannia? Yes.
999. If the average is six months in the year during which the river is navigable below Wilcannia, what proportion of the trade from year to year would be attracted to Bourke;—do you think it would 50 per cent.? I think it would be more for this reason, that if the river is permanently navigable by means of locks from Bourke to Wilcannia, the merchants and other residents of the Wilcannia district would not depend so largely on intermittent navigation, with the result that they would order, even if it cost them a little more, by river from Bourke when they could make a certainty of it.
1000. The certainty of free navigation the whole distance up to Bourke would bring about a certain stability of the trade? Yes.
1001. If a railway line were constructed to Wilcannia from Cobar, do you think that between the railway at Bourke and the one at Wilcannia, with permanent navigation provided by locks and weirs, the whole, or the greater part of that trade, would naturally flow to those two centres? No; I think that the river would be availed of at any time when delivery would be fairly sure, because the river rates would always be lower than the railway.
1002. Does the matter of delay as seriously affect wool as it does ordinary stores, food, and so on? It is not so serious a living factor, but it is a very serious matter to the resident who has his wool there, and who has to pay for an overdraft, which is not unusual in that section.
1003. Is it a fact that the greater number of the stations up there are owned in Victoria? I think the major part of the stations in the Wilcannia district are owned in South Australia and Victoria.
1004. Would that militate against setting up a constant trade between Wilcannia and Bourke? I do not think so to a material extent. Business men in New South Wales or anywhere else will go wherever they can get their things cheapest.
1005. Have you considered the question of irrigation in connection with this scheme? To some extent.
1006. Do you think that any fairly large system of irrigation could be carried on? Not with navigation.
1007. Do you think the two are antagonistic? Yes; because you have not the volume of water to depend upon.
1008. Would there be any beneficial effect other than the certainty of transit brought about by the construction of such works? A moderate amount of irrigation could be accomplished.
1009. Apart from that, would there be any increased prosperity besides that brought about by the certainty of transit? I think you would get increased population within a reasonable distance of the river frontage.
1010. Are the river frontages alienated? As far as I know a good deal of it is not alienated; a good deal of it is under lease.
1011. Then it would be some time before we could expect increase of population in the way of settlement? I should say so.
1012. What has been the effect upon trade north of Bourke of the construction of the weir near Bourke? There has been no effect. I understand that was only put up experimentally to prove its value or otherwise.
1013. As an experiment, do you think it could be advantageously repeated further on? Yes, personally, though as I have some interest in seeing the river locked northward from Bourke, I may be prejudiced favourably.
1014. Has that been an effective lock? Yes.
1015. Has it kept the water back? Yes.
1016. We had some evidence that there was only 3 inches of difference between the height of the water at the top side of the lock and at the bottom? Probably that was when the weir was open. But when the weir was locked for some months, I think the difference between the height of the water on each side of the lock was about 7 or 8 feet.

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1017. Is it not a fact that since the dry weather came on, the whole of the impounded water trickled through the spaces between the shutters? I think that was done intentionally. They can make the weirs absolutely water-tight. I am informed that they did not make them water-tight, because they feared that some objection might be taken by stock-owners further down the river.

1018. But they allowed the water to trickle through the shutters? That was done purposely.

1019. Would not that always be the case with such a weir? There would be a certain amount of leakage, but from what I have seen, I think the shutters could be made fairly water-tight; they are only 30 inches wide each, with iron bands at the face ends.

1020. Have you had an opportunity of examining the model of a fixed weir in this room? I see it now.

1021. Do you think a fixed weir like this would be preferable to the experimental one at Bourke? I am not competent to speak of it from an expert point of view, but I should think that this weir would be preferable.

1022. Did the weir at Bourke have any effect on navigation from Bourke to Brewarrina? It only impounded the water for 25 miles back. I should think it had no effect one way or the other. It certainly did some good on one occasion, in assisting the Wilcannia residents. There were a couple of boats loaded with cargo at Bourke, and they had not the slightest hope of getting to Wilcannia unless the weir were opened, so that they could go to Wilcannia on the top of the rise. The Department very kindly permitted that when it was pointed out that unless it was done the Wilcannia residents would practically starve. The lock gates were opened thirty-six hours after the vessel passed through, and the vessel floated down to Wilcannia successfully.

1023. Do your company own a good many of the river steamers? Yes.

1024. What is their average draught when loaded? About 6 feet.

1025. What is the heaviest draught you have? Fully loaded, about 7 feet 6 inches.

1026. Would a system of locks and weirs providing a minimum depth of 6 feet be sufficient for the majority of your vessels? Yes.

1027. You think that if these weirs were constructed a system of tolls might be imposed on the river traffic out of the Colony? I do not see why a system of tolls should not be imposed if the Government provides accommodation.

1028. We have some evidence that Sydney merchants are in the habit of sending goods round by steamer to Adelaide, and then from Adelaide to Wilcannia, and even as far as Bourke;—do you think that the imposition of tolls would prevent that sort of thing, or, in other words, that suppliers in Sydney would be compelled to use the railway to Bourke and the river over the locked distances? It could be done in the same way as our so-called friendly neighbours in Queensland have put a tax on every bale of wool that leaves for Bourke and Bourke only. You could put on a tax on every bale of merchandise which comes in from South Australia.

1029. Would that deprive the people of the benefit to be derived from a locked river? Yes.

1030. *Dr. Garran.*] During the last three years I understand the river has been of very little use? Yes.

1031. So that you have been practically compelled to get all your goods or produce by railway both at Bourke and Wilcannia? No; the two matters are distinct. To Bourke we always have the railway; but at Wilcannia, during the last three years, through the non-navigability of the river, the bulk of the produce found its outlet at Broken Hill by road, and in a great many instances the produce was held for intermittent opportunities of getting it away.

1032. What have you had to pay for cartage from Broken Hill to Wilcannia? About £6 to £7 per ton.

1033. What is the ordinary freight by river when it is navigable? You would want to take Adelaide as the starting-point, and take the railway freight from Adelaide to Broken Hill. There would be two routes—Goolwa, Murray Bridge, and Morgan—or you could take the other route by Broken Hill, and then by road to Wilcannia. Taking third-class traffic, the rate from Adelaide to Wilcannia by Broken Hill would be £14 per ton right through. Then from Adelaide by way of Murray Bridge, and then by river to Wilcannia, including insurance, the ordinary rate for moderate parcels would be £4 per ton, as against £14 per ton the other way. This is the position at the present time.

1034. What makes Murray Bridge a better route than Morgan? The rates are lower from Adelaide to Murray Bridge than they are to Morgan. I think it is the shorter distance.

1035. Do you send wool down to Port Victor? Yes.

1036. Do you get goods up from there? No; the ships only go there to take away wool.

1037. Is that a cheaper method of getting the wool away? Yes. Wool going to Port Adelaide is landed at Goolwa, and wool going to Port Victor is landed at Morgan. The railway rate from Morgan is much higher than it is from Goolwa to Port Victor.

1038. Is insurance specially heavy at Port Victor? I do not think so.

1039. Does much wool go down to Port Victor? Yes.

1040. If the river were running now in the ordinary style for six months in the year from Bourke to Encounter Bay, or any other place, would you be getting most of your goods up by rail or by river? We should get the bulk—all the heavy goods—by river.

1041. In value would that be half? More than half.

1042. If that is true of Bourke, would it be still more true of Wilcannia, if we had a railway to Wilcannia? Yes.

1043. A railway from Sydney to Wilcannia would be somewhat longer than the railway to Bourke, and the mileage would be higher? Yes.

1044. And the freight from Wilcannia to the ocean would be less than from Bourke? Yes.

1045. Therefore the railway people would have severer competition at Wilcannia than at Bourke? Yes.

1046. Do you think they would get half the trade with a six months river? No; not a quarter of it.

1047. Could they face the cheaper carriage by water? No.

1048. Would it be a passenger railway principally? Yes; and for starving stock.

1049. During the last twenty years have you had six months navigation? Yes; on an average. In one year we had only twenty days, while in another year we had 320 days.

1050. Supposing we had the river locked, and permanent navigation as far as Wentworth all the year round, so that goods could be got up with as much certainty by river as by railway, would the railway get one-quarter of the traffic? No; not a penny; because the Murray is a certainty always; it rises every year.

1051. Has the river ever been stopped between Morgan and Wentworth? Yes; every year, but only for a short time.



1052. When the snow has all melted in the mountains the Murray shrinks? Yes; it is a very broad, shallow river past Wentworth. C. L. Shainwald.
1053. For how many months in the year does the Murray fail? I have not the figures; but year in and year out, I would put it at from three to four months. In April or May the Murray rises. 11 May, 1899.
1054. Could the storekeepers always adapt themselves to it? Yes.
1055. It would not interfere with the wool going down? No, because the Murray is navigable at the time when the wool is ready for market, at the latter end of the year.
1056. It would pretty well compel the squatters to get what they wanted to carry them over three months? Yes.
1057. Compared with what they have to do now would that be a trifle? Yes.
1058. Have they now got to secure a supply of some things for one or two years in advance? I think they take their chances.
1059. Taking the last three or four years, have you run out of heavy things, such as galvanised wire? Yes, absolutely. We have not a coil of wire in Wilcannia. We have run out of flour, and certain storekeepers at Wilcannia have been getting flour and baking-powder by parcels post.
1060. Have you run out of tea? Very close.
1061. Has this been the most trying time you have known on that river? Yes.
1062. You have had to bring goods across from Broken Hill? Yes.
1063. Have the teams from there had to carry feed with them? Yes, to a certain extent. At present the cartage is being done by camels. There is a fair water supply on the road by means of Government tanks and wells, but not a blade of grass.
1064. What feed do they take for the camels? They eat the trees; anything at all.
1065. Practically, have you been shut up to this land-carriage to Broken Hill? Yes, we have practically kept ourselves supplied from Broken Hill.
1066. We have it in evidence that the sheep in the Wilcannia district altogether have fallen from 4,000,000 to 2,000,000? I should not think that that is an exaggeration.
1067. How have they managed even to keep 2,000,000 sheep alive? By cutting the scrub and feeding the valuable sheep on grain.
1068. Has any fodder been brought from Broken Hill? Yes; a great deal.
1069. For stud stock? Yes, and for the station horses.
1070. You were asked whether the locking of the river would probably increase the number of small settlers;—have you ever been at Wilcannia when there has been a great flood? No.
1071. What is the biggest you have seen? In 1893-4.
1072. Did the water then go over the banks? At Bourke it went to within 18 inches of the level of 1890. It did not go over the highest banks.
1073. If the land on the banks is liable to inundation, is it the sort of country which small farmers are likely to take up? I think the land which would be available is not liable to inundation. There are a great many high banks along the river. You can hardly take Bourke as an example, because it is lower than the land elsewhere.
1074. Do you think there is high land enough along the river to give a sufficiency of farms to supply green stuff, vegetables, and orchard stuff for the population up and down the river? I think so.
1075. If we came to irrigation, would it be principally on the high ground that there would be those irrigation farms? Yes; and there it is red soil. It is very deep, rich soil. The subsoil is calcareous.
1076. Do you think the land subject to floods is likely to be taken up? It might be in places, because they could easily run that risk, considering that they only get such a flood probably once in twenty years.
1077. Would an orchardist who has to wait three or four years for a return, be likely to plant his trees where they might be flooded at any time? No; it would be discouraging.
1078. Is it not a fact that so much land is subject to inundation, that it would seriously diminish the area likely to be settled by small cultivators? Yes.
1079. So that the irrigable area on the banks of the Darling has a natural limit? Yes.
1080. And there is only a limited quantity of water for irrigation? Yes.
1081. During this last year, do you think any water could have been spared for irrigation? No. To a large extent the two schemes must be antagonistic.
1082. You have seen this weir at Bourke at its best, throwing the water back 20 miles? Yes.
1083. Had we had a series of locks and weirs below that, it would have been the reservoir for supplying the rest? Yes.
1084. Do you think that what you saw stored there would have been sufficient to make good the waste in navigation? No; a great deal would depend on the volume of the traffic. I do not think the storage of water would have provided for the possible traffic.
1085. Would it have kept the whole thing going during three years of drought? No.
1086. Then the first lock would have dried up? No, because there is a constant small stream, and it is constantly being fed from above.
1087. Is it being fed now? Yes.
1088. To an appreciable extent? Yes. If we put up this lock at Bourke now and made it hermetically tight, it would fill up within a couple of months.
1089. Can you row a boat above the lock now? Yes.
1090. How far? I have not visited the river lately; but I think you could row a boat from the lock 5 or 6 miles up.
1091. There is still a little running? Yes; I think the river report to-day gives a height of 2 feet.
1092. Bourke has not wanted drinking-water? No; and in that respect the lock has been of value, because it has given good drinking-water.
1093. Is the town supplied from the natural river? Yes. At Wilcannia I believe there is a dam, but it is only of a temporary character.
1094. Are you clear from your experience, that given a navigable river, it will beat the railway hand over fist? Yes, in the matter of cost of carriage.
1095. Whatever national reasons there may be for making the river thoroughly navigable, do you think it will not conduce to the prosperity of our railway system? I do not see that it can to any material extent, unless there are other avenues ascertained in the way of mining.

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1096. You have seen the effect of the railway to Bourke;—is it a great convenience to the residents? Yes, and it has developed the district. I do not know that there has been a large increase of population; but the existence of the railway has largely increased the volume of trade.
1097. Has more pastoral country been taken up than when the railway did not go beyond Dubbo? Yes, very much more under the new homestead leases system.
1098. But was not that land under occupation before? Yes; but it has been taken up in smaller blocks.
1099. There has been closer pastoral occupation? Yes; and there is farming close to Bourke.
1100. You find that the homestead lessees keep more sheep to the acre than the squatter? They make the attempt, but I do not know whether they succeed.
1101. Has it been a trying time, and therefore not a fair test? Yes.
1102. Do you get any of the trade from Tibooburra and Milparinka down to Bourke? Only intermittently. It goes to South Australia or to Wilcannia.
1103. Have you a well-watered route from Bourke to those places? Yes; a very good route for teams.
1104. Have they had to carry feed this year? In the early part of the year they did.
1105. They have not relied on Bourke for supplies? No; it is quite as easy to get there from Wilcannia as from Bourke.
1106. It is easier for them to get to the Broken Hill railway than to the Bourke railway? It is not easier, but the traffic has been slightly in their favour with regard to the rates.
1107. You do not see much in their money? No.
1108. Would a railway to Wilcannia make any difference in attracting the trade as against Broken Hill? It would affect a certain section coming in towards Wilcannia. The reason of the trade finding its way to Broken Hill is because they can make certain of sending it away there.
1109. Supposing there were a railway to Wilcannia, would the railway to Wilcannia compete favourably with the railway at Broken Hill? I think not, for the reason that it is a longer haul to Sydney from Wilcannia than from Adelaide to Broken Hill.
1110. If a railway to Wilcannia were made right through to Broken Hill, would there be any tendency to send the trade by way of Port Pirie? I cannot say.
1111. Trade usually follows the shorter route, and it is a much shorter route, notwithstanding the break of gauge, to Port Pirie than to Sydney? Yes.
1112. Would there be some risk of the trade going from Wilcannia to Port Pirie? If they stood on an equal footing with regard to mileage rates there would.
1113. Making a railway from Sydney to Wilcannia and right through to Broken Hill would by no means strengthen the hold of Sydney over the Wilcannia trade? No; not on the mileage basis.
1114. Would it not rather weaken it than otherwise? Taking the mileage basis, there would be a tendency to go in the other direction.
1115. Let us suppose the river not locked, and a drought, with a railway right through to Broken Hill from Sydney, in a drought season would the Wilcannia storekeepers be more tempted to get their goods by Port Pirie than from Sydney? Sydney would have the advantage, because Port Pirie is only a shipping port. You would have to count the freight from Adelaide or Sydney to Port Pirie, or the railage from Adelaide to Broken Hill.
1116. Would it be an even thing? No; I think it would be slightly in favour of Sydney as the better buying place.
1117. That advantage would neutralise to some extent the greater amount of railway carriage? Yes.
1118. Would it be a matter of calculation as to railway charges? Yes; goods take the cheaper route.
1119. Do you get the Paroo trade at Bourke? Yes; it comes almost wholly to Bourke.
1120. *Mr. Shepherd.*] Do the people generally on the river seem to take an interest in the proposed locking of the Darling? I visit the district about four times a year, and as far as I can see the townspeople prefer the railway to the river. I do not blame them, because it gives them greater facilities for reaching the port, and for the removal of stock, and obtaining food and feed supplies, than by the river, because the distance from Bourke to Wilcannia is too great for stock or food or feed to be moved as compared with the railway. We could not move stock all the way from Wilcannia to Bourke, and truck them from there down to the port. If it is one of the main objects of constructing the railway to provide means for getting away starving stock in times of drought, the river is of no value for that purpose.
1121. Do they seem anxious that the river should be locked? I think they are taking an interest in both schemes; they would be glad of either, but they have a leaning for the railway scheme.
1122. Even if the river were locked, do you think they would still largely use the railway to Bourke? Yes.
1123. If a railway were constructed from Cobar to Wilcannia do you think they would largely use that as well? I think so. If the river were locked, they would give the railway preference for passengers and stock, but not with regard to merchandise.
1124. The railway would never compete with the river as far as freight is concerned? I do not think so.
1125. The freight for general goods by railway from Sydney to Wilcannia would be £10 13s. 6d. per ton. Could it not be carried for very much less by the river? Yes, even under the present severe conditions they can get their general goods from Adelaide to Wilcannia by railway and road for £14 per ton—that is only £4 more than they would have to pay by the railway.
1126. Is the land in the immediate vicinity of the river generally black? Yes, most of it.
1127. Is it a stiff, clay soil? Yes.
1128. Are you acquainted with the country for a considerable distance back from the river? Yes.
1129. What is it like 10 or 15 miles from the river? It is very much the same. Perhaps 30 miles out from Wilcannia and north towards Bourke it is nearly all red; 40 miles beyond that it is all black; around Wilcannia it is all red.
1130. What is the character of the cultivation which is taking place along there? They grow hay and vegetables. They grow wheat for hay and lucerne.
1131. Have they made any attempt at irrigating on a small scale for garden purposes? Yes; on several of the stations, notably Murtee and Winbar. The manager at Winbar not long ago told me they were extending their cultivation area. They use a pumping engine.
1132. Are they always able to get a supply from the river? Yes.
1133. Is there sufficient water in the river now to irrigate to any extent? Only to a limited extent.
1134. Are the banks of the river very deep? Yes.

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1135. Would they have to pump in every instance? If they lock the river, I understand it will give a permanent, navigable height of something like 7 or 8 feet. It would not then require so much pumping.
1136. The weir as proposed here is quite unfitted to supply water for irrigation and navigation as well? I think the two are antagonistic.
1137. For irrigation, would the weirs have to be very much higher? Yes.
1138. That would, of course, largely increase the supply? Yes.
1139. On an average, taking one year with another, is the Darling navigable for nearly half the time? Yes, about 49 per cent.
1140. During that time can supplies be got with comparative ease? Yes, and at small expense. I may say, with regard to the average which I have mentioned, if I made it up within the last four years the average would not come out so high.
1141. In the event of the railway being continued to Wilcannia, do you think it would induce the steamers to reduce their charges for freight? I do not think they would allow the traffic to be taken away from them without a fight, although I must say candidly that the rates now are hardly paying. I do not think they could afford to reduce them very much.
1142. *Dr. Garran.*] Is that due to competition amongst themselves? Yes.
1143. *Mr. Trickett.*] Where do Rich & Co. get their goods from at Bourke? We get them chiefly by rail from Sydney.
1144. When you were examined before on the proposals to make locks and weirs on the Darling was it proposed to erect them north of Bourke? Yes.
1145. Would that be a greater advantage to you than the present proposal? I do not think so. From the point of view of my firm either scheme would be an advantage.
1146. I understood that your business for your steamers was generally from Bourke northwards? Not necessarily.
1147. And between Bourke and Wilcannia you have no very great trade? No; only at times, when the river has been so intermittently navigable.
1148. When you were examined before you stated that your chief trade was from Bourke northwards, and from Wilcannia southwards? Yes.
1149. Now the great gap we are going to deal with is from Bourke to Menindie;—looking at it from a trade point of view with regard to your steamers, how is that going to benefit you or anybody else, seeing that there is not very much trade between those two points? The advantage to us in locking the river would be that we should secure a good deal of that trade which we do not get now. If we had permanent navigation we should be able to secure a lot of the trade for the steamers.
1150. How is it you do not get so much trade between Wilcannia and Bourke as you do on the other sides? Circumstances are different now to what they were when I gave my evidence. The present proposal is to lock the river from Bourke to Menindie, which means permanent navigation. The result will be that at such times as the river is not navigable below Menindie the bulk of the trade will gravitate to Bourke, and the trade of Bourke will be increased.
1151. Therefore, from that point of view, it would be an advantage to your firm? Yes.
1152. You said just now that the people seemed to prefer railway connection with Wilcannia, to the river;—would you, as a person having great experience of the district, say what you think would be the best for the general benefit? I consider that for the general benefit the railway is the better of the two. Looking at it apart from any selfish point of view, and purely from the point of view of the residents, the railway is far preferable for a number of reasons. The chief reasons are that they could get stock removed, it would bring a larger population, it would promote mining development, and in several directions it would facilitate the populating of the country, which the river could not do. I am talking of the Wilcannia district.
1153. That is a straightforward answer, because, personally, it would suit you to have the river? Yes; I state my opinion as unprejudicedly as I can.
1154. Is there much trade from Bourke down the river to Wilcannia and Menindie? It is very intermittent.
1155. Has that trade increased or decreased of late years? It has slightly increased on account of the intermittency.
1156. Is there much competition between the colonies at those points? Yes; the competition still goes on. I could explain in another way how the trade has increased on account of the intermittency of the river. A pastoralist or other resident of the Wilcannia district if he knows there is a good river coming down would not look at Bourke, but if he sees there is no chance of a river he will send his order to Bourke. These difficulties may not arise again for some time.
1157. How far above Wentworth does competition reach from the other colonies? A little above Wilcannia.
1158. How many miles is that? About 300.
1159. If you were asked which you considered was of greater importance in dealing with this river to make a navigable channel or one fit for irrigation, which would you favour? That is a home thrust. I am a steamboat proprietor—I could not say.
1160. Looking at the experience of that great country of America, of which you are a native, is not irrigation there regarded as an advantage in the dry districts? Of course. In dry districts there they have gone in more for artesian boring by artesian companies, which lease land out in small sections and guarantee so much water to every holder per acre.
1161. Do you look upon the locking of the river as being of as much importance as you did when we were considering the question of locking the river from Bourke to Brewarrina, seeing that a railway is now being authorised from Byrock to Brewarrina? I still consider that the locking of the river is a national scheme, and a great one. It may be called a Federal scheme.
1162. What is the largest tonnage of the steamers which you employ? Each vessel is provided with one or two barges, and the steamer does not carry much cargo. She tows two barges. Taking the combined tonnage capacity in that way of any one plant, it is about 250 or 300 tons.
1163. The length of this lock is 200 feet, with a width of 37 feet;—do you think that would be sufficient length to accommodate any vessel that would be employed in the river for many years? Yes; as far as I recollect the dimensions are the same as the lock at Bourke. That I think would be quite sufficient. A boat and a barge could go in at one time.

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1164. *Chairman.*] Have you now got the figures which you referred to? Yes; I have taken an average of fourteen years from the 1st January, 1882, to the 21st May, 1896. The average per annum during which the river was open was 49 per cent. The lowest number of days was in 1884. It was then open twenty-one days out of 365; the longest time the river was open was in 1890, when it was open 354 days. I have also the following tables:—

SUMMARY of Wool Inwards and Merchandise Outwards between Wilcannia and Bourke, 1892 to 1898.

Year.	Days river was navigable.	Wool inwards.	Merchandise outwards.	Year.	Days river was navigable.	Wool inwards.	Merchandise outwards.
		Bales.	Tons.			Bales.	Tons.
1892	247	9,750	1,760	1896	64	2,238	680
1893	336	9,550	950	1897	135	3,946	937
1894	282	7,209	762	1898	101	704	517
1895	54	318	387	1899*	27	352	574

\* For three months.

RETURN showing Inward and Outward Shipping, and the values of the Imports and Exports at the Port of Wentworth during the years 1890 to 1896, inclusive.

Year.	Inward Shipping.		Outward Shipping.		Imports— Value.	Exports— Value.
	Number of Steamers and Barges.	Registered tonnage.	Number of Steamers and Barges.	Registered tonnage.		
1890 .....	420	44,009	375	38,434	£ 237,021	£ 638,151
1891 .....	440	49,446	427	47,612	271,902	655,325
1892 .....	397	40,510	406	41,175	167,805	409,739
1893 .....	398	47,627	403	48,390	133,555	521,285
1894 .....	483	54,475	485	55,265	89,189	609,299
1895 .....	385	45,221	371	44,391	48,646	228,236
1896 .....	394	46,078	411	48,909	73,501	529,484

RETURN showing the value of Imports and Exports at Wilcannia during the years 1895-6.

Year.	Imports.	Exports.
1895 .....	£23,137	£145
1896 .....	£60,694	£176

1165. Has any special effort been made by the Railway Commissioners to get the traffic from Wilcannia towards Bourke? Yes; there is a special rate offered for a portion of it.

1166. *Dr. Garran.*] Has that been affected by the low river below Wilcannia? I do not think so. They have preferred to hold their wool at Wilcannia, on the chance of getting the boats to take it away. They have sometimes kept it stored for months.

1167. *Chairman.*] Is there much traffic by road from Bourke to Wilcannia? Practically none.

1168. Is there any road-borne wool? Yes; but not below Tilpa.

1169. *Dr. Garran.*] Have you any return of what has come overland from Broken Hill to Wilcannia during the last twelve months? No; but it might be ascertained partly through the Custom-house in Broken Hill.

1170. *Mr. Watson.*] How many steamers are engaged on the Darling River, usually? Approximately, the registered tonnage, including barges, is about 10,000.

1171. With reference to the possibility of imposing tolls with a view of recouping the State for the expense, what do you think would be the most equitable way of imposing a toll? I think the most equitable way would be the same as wharfage charges; that would be on the package or on the ton. The goods could be classified.

1172. In view of the increase of trade resulting from a permanent river, what amount do you think the steamboat proprietors could afford to give in the way of tolls on the registered tonnage of 10,000? I do not know. It seems to me that a steamboat proprietor would do what any other middleman does—that is, he would pass on the charge to the consumer. It would pay him for the reason that on account of the permanent traffic he could afford to carry for less money.

1173. The up-keep of the system of locks and weirs will be £22,000 a year, including interest and everything;—what proportion of that could we reasonably expect to get back by the imposition of tolls without unduly handicapping the people? It is very difficult to arrive at the figures. It is very difficult to say what saving there would be to the steamboat proprietor in having permanent navigation. There would be a great many items to be considered. For instance, during the last twenty-four hours an incident has occurred showing the uncertainty of the calculation. We sent a vessel down to South Australia, and the crew were engaged at Bourke under the same articles as on an ocean-going vessel—that is, we are bound to return the crew to Bourke. The vessel has become stranded, and we have to bring back the crew. We shall have to rail them to Port Adelaide, and provide them with a passage by sea to Sydney, and then rail them back to Bourke. All that would be saved to a steamboat owner if there were permanent navigation.

1174. *Mr. Levien.*] I suppose that does not occur very often? Yes; we engage men sometimes in South Australia, and we have had to bring them back in the same way. We have engaged them at Bourke, they have got stranded at Wilcannia, and we have had to bring them back to Bourke by road.

1175. *Mr. Watson.*] Do you think it would pay the steamboat proprietors if a license fee were imposed of £1 per registered ton per annum;—taking everything into consideration in the way of increased trade from population, could they afford to pay that amount? I think that would be an exceptionally good idea; and I do not think a fee of £1 would be excessive.

1176. If they could afford to do that, practically half the annual cost would be recouped? Yes; if my estimate is correct that the gross tonnage is 10,000, you could obtain half the maintenance cost from that source. It would be more than worth the license fee.

1177.

1177. It would be worth your while to pay £200 per annum per plant and have a free passage? Yes, unquestionably.
1178. You would assume, of course, a river to Wentworth and not to Wilcannia? I do not say Wentworth necessarily. I refer to the scheme under consideration.
1179. You think it would be worth while to pay a license fee as far as Menindie? Yes.
1180. With regard to the question asked by Dr. Garran concerning the present flow of water at Bourke, I understood you to say that there was a certain amount of water coming down the river now;—do you know what that means on the gauge? I think the gauge at Bourke to-day shows a little over 2 feet above what they call summer level.
1181. Does summer level mean flowing? I do not think so. It is a very deceptive thing. The levels are not the same at the different telegraph stations.
1182. At Bourke and Wilcannia we have diagrams showing different levels? Yes; they are not reliable for navigation purposes.
1183. You say that there is 2 feet of water shown on the gauge;—what would that represent on the next ensuing bar or shallow? It would be flowing the whole length.
1184. Two feet at Bourke would mean 2 feet right down the river? Yes.
1185. Do you think it is 2 feet at the present time? Yes.
1186. Is that the lowest? No; I have seen it not flowing at all.
1187. How long has such a state of things existed? I do not recollect it since 1884.
1188. Did that obtain over any length of time then? Two or three months.
1189. Was there one occasion on which there was no flow? Yes; you could walk across the river.
1190. We could not always rely upon the river making good the waste of lockage water, and the evaporation in the upper pool? No, but if it were fairly conserved, I think, for all practical purposes you could rely upon it.
1191. We were told yesterday by one of the engineers that 610 lockages would reduce the level of the water in the uppermost pool by one foot. We also have it in evidence that, the evaporation in that district amounts to about 5 feet per annum. So you would have to allow, say, during the three months that no river was running for 15 inches of evaporation, and 610 lockages, would bring you down another foot? In making that estimate I would take into consideration another factor, that is, that evaporation is greater in certain seasons than in others. The evaporation would occur during the warm weather, and the chances of having a good river are better during January and February, which are the hottest months. It is very seldom that we lose the navigation during that time.
1192. Is that on account of the tropical rains on the Queensland side? Yes, if you estimate the evaporation at 5 feet you should take into consideration the time at which it occurs.
1193. Your experience is that the evaporation would be least during the period when the flow would be least? Yes.
1194. Do the tropical rains keep up the river? Yes.
1195. So that you would leave out evaporation as far as the upper river is concerned? I would not set much store by it.
1196. The worst aspect would be what would be lost by lockage in an exceedingly dry time? Yes.
1197. What do you think during any three months would be the greatest number of lockages, and do you think they would average 610 during that three months? I do not think they would.
1198. Then even during the worst periods of the year you do not think there would be a reduction of one foot over the whole area? No.
1199. So that from a navigation standpoint, you think the depth proposed to be ensured would be quite sufficient even during the worst period of the river? Yes.
1200. Do you know whether any steamers have had occasion to use the lock since it was put up? Yes.
1201. What time did it take to go through? Only a few minutes. We put the first boat in there when the lock was open, and they emptied and filled the lock in less than four minutes.
1202. There would not be any great loss of time in passing through the locks? No.
1203. Half an hour has been mentioned as the probable maximum? I should not think it would take any longer.
1204. Did you put a barge through with that vessel? Yes.
1205. Did that involve any great additional trouble? No. There is sufficient length in the lock.
1206. *Mr. Levien.*] Supposing vessels were going up to Wilcannia from Wentworth, at what rate do they travel? About 4 or 5 miles an hour. In a locked weir they would have still water and no current.
1207. Supposing the river is in flood, and without any locks, at what rate does the stream run down? At least 3 or 4 miles an hour.
1208. So that the steamer could still go up-stream? Yes. It is only in turning the corners that there would be any trouble. They then get into eddies.
1209. *Chairman.*] Are there any obstructions in the river below Menindie? Yes; it is a very bad river there. More accidents occur below there than anywhere else, on account of snags and rocks.

FRIDAY, 12 MAY, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD,  
The Hon. ANDREW GARRAN, LL.D.  
The Hon. WILLIAM JOSEPH TRICKETT.

WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.  
ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Charles Edward Rennie, Chief Draftsman, Department of Lands, sworn, and examined:—

1210. *Chairman.*] Have you prepared a map showing the tenure of the land within 3 miles on each side of the Darling River, from Bourke to Menindie? Yes; 15 miles wide is shown between Bourke and Wilcannia.

C. L.  
Shainwald.  
11 May, 1899.

C. E. Rennie.  
12 May, 1899.

C. E. Rennie. Wilcannia. I first of all prepared a map from Bourke to Wilcannia, showing a distance of 15 miles on each side, but I was afterwards asked to prepare a map showing 3 miles. That accounts for the different widths.  
 12 May, 1899. 1211. Have you a statement showing how these lands were held between Bourke and Menindie? Yes. It is as follows:—

## BOURKE TO MENINDIE.

Proposed locking of the Darling River 3 miles on each side of River.

Alienated land .....	52,100 acres
Homestead leases, &c., &c. (Includes settlement leases, 3,480 acres ; improvement leases, 6,980 acres ; special leases, 1,250 acres) .....	478,000 ,,
Reserves ..	402,750 ,,
Crown land .....	366,200 ,,

## Tenure of Crown Land.

Leasehold area (expiring in 1918) .....	354,400 acres
Held under occupation license.....	11,100 ,,
Untenanted .....	700 ,,

1212. Is there anything in the Department by which we could obtain a statement of the proportion of agricultural and pastoral lands? I do not think so. Probably it could be obtained approximately from the local district survey office.

1213. Suppose this country is made fit for smaller settlement, could some of the expenditure be recouped by an increase of the rents;—is that the practice in the Department? Such land as is suitable for closer settlement is set apart for that purpose. For instance, if any area along the river is fit for settlement leases, it would be reported upon, and set apart in small areas, and the surveyor's report would state the value of the land, the rental that should be charged, and the improvements upon it. The rent in that case would be higher than the rent of the adjoining pastoral holding. That is probable, as it would be the best part of the holding, of course. Most of the available resumed areas along the river have been taken up under homestead leases. The blue hatchings show the resumed areas along the river which have been taken up as homestead leases or improvement or settlement leases. The brown-coloured portions are the leasehold areas which are not available.

1214. When will the leasehold areas be available? In 1918—that is, provided no further extension is granted.

1215. Is the portion of the map coloured dark blue freehold land? Alienated land; and the green shows the reserves. The great bulk of the blue hatching is homestead leases.

1216. Can you give the same information with regard to the 15-mile area? On the 15 miles on each side of the river from Bourke to Wilcannia, the figures are as follows:—Alienated land, 136,800 acres; homestead leases and other leases, 1,193,900 acres; reserves, 590,700 acres; Crown lands, 2,482,600 acres. Crown land made up as follows:—Leases expiring in 1918, 2,110,500 acres; held under occupation licenses, 370,700 acres; unoccupied, 1,400 acres.

1217. *Dr. Garran.*] Have you the number of different settlers, the homestead lessees, and so on? No; it cannot be given satisfactorily, because homestead leases may not be occupied, although they may be held in individual names.

1218. You cannot give an idea as to how many *bonâ fide* settlers there may be? It would not be reliable. Of course the improvement leases do not require residence. There is not a very large proportion of improvement leases.

1219. *Chairman.*] As the leases of the pastoral holdings fall in, are they eagerly sought for by small settlers? Yes, as a rule in the Central Division. They have not expired in the Western Division.

1220. In the past have there not been a number of withdrawals from leases? No, except in one or two cases around townships. The withdrawals are limited to 10 miles from the boundaries of towns of not less than fifty inhabitants. The resumed areas have been taken up pretty freely in parts of the Western Division.

1221. Were the resumed areas eagerly taken up? I cannot speak for the whole district; but I know that here and there they have been very freely taken up, for instance, along this river.

1222. Judging from the past, would it be naturally supposed that when the leases fall in, they will be taken up in a greater number of holdings? Yes, especially along river frontages.

1223. Is there any difference in the carrying capacity of the land in homestead leases and pastoral holdings? I do not know from local knowledge; but I suppose the character of the land does not vary very much.

1224. I suppose the original holder would see that the best part of the country was not resumed? No doubt he would do the best for himself; it is natural to suppose so.

1225. *Mr. Dick.*] Was there ever a reserve 3 miles wide proclaimed along the banks of the Darling? I do not think so? but there is a stock route along the river.

1226. Of what width? On an average a mile wide.

1227. Does that extend along the whole length of the banks? There is a stock route going down from Bourke to Wilcannia. It is mostly on the western side, and also partly on the eastern side. Throughout a good part of the distance, it is on both sides.

1228. Is that route exempted from any kind of selection? No; it may be included in homestead leases or settlement leases.

1229. *Mr. Watson.*] Are not stock routes reserved from occupation? Yes; but they are not absolutely excluded from homestead or settlement leases.

1230. They pay a rental for it, but they have to give passage for travelling stock? Yes.

1231. *Chairman.*] Then, practically, there is a stock route reserved on both sides of the river? Yes, practically, for a great part of the way.

1232. *Mr. Dick.*] If it were thought desirable to allow the stock route to be selected, what course would have to be taken? It would have to be reported on, and we should have to get the consent of the Mines Department (the Stock Branch) to its alienation. It would have to be inspected, set apart, and measured up.

1233. What provision would be made for the drovers? We should not cancel the route if it were absolutely wanted.

1234. *Mr. Watson.*] The bank of the river may become valuable because of its proximity to the river for irrigation purposes, and to that end it may be wise to throw open the stock route for very small settlement,

settlement, say, for homestead selections; and therefore an exchange of a portion of the land along the banks of the river might be made for land further back for a stock route? Yes, the stock route might be deviated further back. I do not mean that the stock route absolutely follows the banks of the river. It is along the river, but it does not absorb the frontage. C. E. Rennie.  
12 May, 1899.

1235. *Mr. Levien.*] Would not a large area be wanted in that country? Yes, you could not have settlement on very small areas unless it were close to the townships.

1236. *Mr. Dick.*] Under the terms of the pastoral leases in that district, is the Department allowed to subtract from the areas, for the purpose of creating stock routes under the conditions we have been discussing? Yes, the Department has power to take stock routes through the leasehold areas.

Henry Chamberlaine Russell, C.M.G., Government Astronomer, sworn, and examined:—

1237. *Chairman.*] Can you give the Committee a statement of the extent of country which supplies the catchment area of the Darling River in the upper part? In New South Wales the area is 73,400 square miles, and the corresponding area in Queensland is 49,000 square miles. That is the area draining into the river. H. C. Russell,  
C.M.G.  
12 May, 1899.

1238. *Dr. Garran.*] Does that include the Castlereagh and the Macquarie? Yes, the whole of the branches of the river spreading out above Bourke. It does not include the area below Bourke, although that does yield a considerable percentage of the water coming into the river at certain times.

1239. Is the proportion coming from Queensland compared with the proportion coming in from our own tributaries relative to the two areas you have mentioned? I cannot answer the question definitely, because I have not the rainfall exactly in Queensland. The water coming from Queensland, although the area is smaller, is quite as large as that from New South Wales, because the rainfall there is heavier.

1240. Then the water at Bourke is as much Queensland as it is New South Wales water? Yes.

1241. *Chairman.*] Can you give the average rainfall over the New South Wales area? The average rainfall varies very much from year to year in New South Wales; generally it is 20 to 22 inches. In 1897, it was only 17·75 inches. In other years when there were heavier rains it has been as much as 25 inches. I do not take into consideration what is below Bourke, because the general impression is that no rainwater of any consequence gets into the river there. The Warrego or the Culgoa waters seldom or never reach the river. There is one instance on record in which a very heavy rain-storm passed over Wilcannia as a centre, and it caused a rise in the river of 27 feet at Wilcannia, although the rain only lasted thirty-six hours.

1242. Have you the record of the rainfall for the past three or four years? Yes.

1243. Have you a record of the rainfall above Bourke which supplied the Darling? Last year it was 17½ inches, and the average was about 24 inches over the area of the catchment of the Darling.

1243½. That is the effective catchment of the Darling in New South Wales? Yes.

1244. What percentage of that rainfall actually finds its way into the Darling? It differs very much according to the seasons.

1245. During a very dry period, does very little of it find its way into the river? Yes; the river sometimes does not run for six or seven months, but that is an extreme case. The flood that is now in the Darling affecting the navigation there arises, not from any general fall over the catchment of the Darling, but from a heavy rain on the main range north of Tamworth up to Tenterfield, including perhaps 60 or 70 miles to the westward. The rain was very heavy, and that gave rise to the present floods. The character of the rain varies so very much from year to year that in order to convey an exact idea of the state of matters, one would require to supply a table showing the quantities.

1246. Have you gone into that question? Yes; I have the quantities here for a number of years. Taking nineteen years, the average rainfall has been 24·16 over the catchment of the river. The percentage of that rainfall which passes Bourke amounts to 1·35 per cent—that is about 1½ per cent. The greatest quantity that passed Bourke in any year was in 1893, and that amounted to 2·85 per cent. The rainfall was 26 inches over the area in that year.

1247. Has the water passing down the Darling been gauged at various points? Yes; but those records going back for some years are not so accurate as they are now, since the Water Conservation Branch has looked after the rivers better. In older times the records were simply kept by some telegraph master, who might sometimes guess at them. Now, I believe, they are correct.

1248. Have you a correct return for the last three years? Yes. For 1891 the percentage was 2·31; 1892, 1·60; 1893, 2·85; 1894, 2·09; 1895, 0·52; 1896, 0·78. In 1897 the river gauge was shifted, and the record was incomplete.

1249. Can you give us the volume of water passing down? No; I have not got it worked out. It is a very small percentage of the water which falls. Take the Murray, for instance, the average percentage of rain passing down that river amounts to nearly 25 per cent. It seems very remarkable that the Darling catchment area should adjoin the catchment area of the Murray, and that the Darling should only carry away about 1½ per cent., while the Murray carries away about 24 or 25 per cent.

1250. Is the Murray affected a great deal by snow water? Yes; a great deal. There are no means at present of ascertaining how far it does affect the river, but it can be observed that the river begins to rise when the snow begins to melt.

1251. Have you any opportunity of ascertaining what amount of loss is caused by evaporation and absorption? It is very difficult to answer the question, because the evaporation at Bourke from a water surface is about 5 feet in the year, and the rainfall is 18 inches. That looks like a flat contradiction, but it must be remembered that evaporation does not go on all over the surface. When the ground gets dry evaporation ceases. I find by weighing a portion of the surface of the earth regularly every day, the evaporation is more rapid from an earth surface than it is from a water surface alongside of it, until the ground becomes baked on the surface. When it is baked for an inch from the surface evaporation stops. That must be the case in Bourke. After the wet surface has disappeared, practically the evaporation ceases.

1252. *Mr. Levien.*] Has that been tested up there? For many years I have had a proper instrument for recording evaporation at Bourke. I have had it there since 1885, another at Wilcannia, another at Walgett, another at Dubbo, and at a few other places about the country.

- H. C. Russell,  
C.M.G.  
12 May, 1899.
1253. *Chairman.*] Does a great deal of the water that falls as rain find its way into the subterranean supply? Yes; I think that is what becomes of it. The sides of the hills are very absorbent, and the rain does not get into the rivers, and even when it does get into the rivers, it seems to sink into the gravel beds.
1254. *Mr. Shepherd.*] Does the depth of the water affect the evaporation? I think not. If you put out a very shallow surface of water, the sun's rays would go through and heat the bottom. But in the case of an ordinary depth of a foot or 2 feet that would not be appreciable. It is the wind chiefly which causes evaporation, and not the heat so much.
1255. Would not the sun have more effect on shallow water than on deep water? Yes.
1256. Consequently evaporation would be greater in that case? Yes.
1257. *Mr. Levien.*] What wind has the greatest effect in evaporation? The north-westerly—the hot winds. Before I made the experiment, I was under the impression that 2 or 3 inches of water would evaporate in a single day. I have had a positive statement made to me that a much larger quantity would disappear in a day, but I find the greatest record at any of these places in the country extending over thirteen years shows that the greatest evaporation in one day is a little under 1 inch.
1258. Where was that? At Walgett. The vessel there is 4 feet in diameter, and the water is 2 feet 6 inches deep, so as to represent as fairly as possible an artificial reservoir.
1259. *Mr. Shepherd.*] Have you found that the growth of timber in the immediate vicinity of water assists evaporation? We have no means of ascertaining that. Of course, trees do evaporate enormously. A number of experiments have been made in Europe, and it is found that a comparatively small-sized tree with abundant foliage evaporates in summer as much as 16 gallons of water per day.
1260. Of course, some varieties of timbers take up a great deal more moisture than others? Yes; but there are not many Australian trees which have large foliage. The tree I spoke of was a chestnut tree in the Old Country with a very full foliage. I have always felt that it is hardly fair to measure the percolation in Sydney, and to suppose that it represents the country, but I cannot get any one in the country to do it.
1261. It is supposed by a good many that the Hobart blue-gum (*eucalyptus globulus*) is the greatest absorber of water? I do not know about that, but very likely it is. There are many cases in this country where the forests have been cut away suddenly and springs have burst out as the result, showing that the trees must have got rid of a good deal of water before.
1262. *Chairman.*] The other day you gave it as your opinion that the creation of large areas of water in that district would have little or no effect upon the climate;—are we to take it that you meant there would be no appreciable difference in the rainfall in the immediate vicinity, or that there would be no influence whatever on the rainfall some distance away? I have come to that conclusion from experience. I think I mentioned the experience in Italy, where a large area of Northern Italy was placed under irrigation, and it was expected that there would be increased rainfall, but it was not so. In this Colony, at Menindie, and in that district, there are some very large lakes after heavy floods; but it does not appear that the rainfall is improved thereby, because that is the driest part of the country. There is less rainfall about Menindie than anywhere else. I heard of a scheme the other day as being broached in Victoria, where one of the engineers proposes that the overflow of the Murray in flood-time should be carried into a part of the Wimmera district, so that a very large lake would be formed there. One of the strong points made by the engineer is the probability of a greater rainfall, and an improvement in the climatic conditions, so that there would be an improved growth of cereals. As far as I have been able to ascertain here and in other countries there is no result of that kind. The atmosphere is drifting to the eastward at the rate of 450 to 500 miles a day, and any mass of water evaporation which rises up and mixes with the air above, must go away probably to the sea. We do not get much rain from the west.
1263. Is it possible that the rainfall would be increased between the Darling and the coast? I do not think so; it would go too fast to fall. Suppose all these water areas were evaporated, and the water they contain distributed over the large intervening space between there and the sea, you would not be able to see it—it would be a microscopic quantity. The areas of those lakes are utterly insignificant compared with the general area of the Colony to the eastward.
1264. We should not have to consider the lakes there now; they would be considerably increased in size;—do you think they would not be sufficient to make any difference in that? I do not think so.
1265. *Mr. Shepherd.*] Is it not reasonable to suppose that where there is an enormous conservation of water, and that water is evaporated, the rain would be given off somewhere near the point rather than it would be carried away hundreds of miles to the sea? I do not think so; but to a large extent that opinion is based upon my own idea of the matter and what has been done in other countries. I am not aware of any definite experiment being carried on on a large scale. The water in Lake Torrens is a very large area, but it does not appear that there is an excessive rainfall there above that of the surrounding districts; in fact, the rainfall there is very poor.
1266. Then it is just a matter of chance as to what rain will be brought there? Yes. The bulk of our rain comes along with weather changes from the west and north-west. All the useful rain inland comes in that way.
1267. Have not the hills some effect in breaking the rain-clouds? Yes. If a rain-cloud is made to rise up a little it immediately drops rain. The winds from the west and north-west, which bring rain to us, pass over a stretch of ocean 6,000 miles wide. Heavy winds there generally break up the surface of the water, and tend to load the atmosphere with moisture. When it comes on to the shore there is a probability of getting a deposition from it; but you cannot compare any artificial water conservation with the Indian Ocean, and that is where our supply comes from.
1268. *Dr. Garran.*] Do you get in your office returns the number of days on which the Darling is navigable? Yes; we get the height of the river every day, and it is plotted in each book. The record of the river at each station is shown in a diagram. The salient points—the highest and lowest and the average—are given in a table.
1269. Can you say how many days during the last four years the river has been navigable? I cannot give the figures for the last three or four years, but the average duration of available water for navigation is about four months in the year.
1270. During the last four years would it have been less? Yes. What I have stated is the average of fifteen or twenty years. Sometimes there has been no navigation for a year. I remember that once when



I was at Bourke the hotelkeeper told me he had been waiting for two years for a load of timber from Adelaide. That was in a very dry time—in 1885. H. C. Russell,  
C.M.G.

1271. *Mr. Levien.*] Would not that depend upon the draught of the vessel? Yes.

1272. *Dr. Garran.*] Has it ever been navigable for a whole year? I am not certain, but I think it has been. 12 May, 1899.

1273. *Mr. Trickett.*] If these weirs are erected it is contemplated to utilise the waters of the Darling for irrigation;—have you studied the point as to the capacity of the river for such a purpose? I have not studied it so as to give an answer that would be worth much, but I have looked at it. I do not think the question has been determined as to how much water would be necessary. In Egypt one flooding of the agricultural area requires about 17 inches. I think there is a smaller flooding after that.

1274. *Mr. Watson.*] Is it the practice here to put such an immense body of water on the land where irrigation is carried out? I do not know what is done in the Colony. The crops are somewhat different, I think.

1275. *Mr. Trickett.*] Could we not get information on that point by a record of the water which passes down the river at any given point at a certain time? It would be possible to get at it. We have all the records of the heights of the water, and approximately the quantity that runs down. But then you want the other side of the question, as to how much is necessary for irrigation.

1276. We have had some evidence in that direction from Mr. McKinney;—if we knew what amount of water runs away, and could be conserved, it might be of some use? Mr. McKinney has a better opportunity of knowing how much goes away than I have, because in many cases he has his own officers to keep the records. As to the amount required for irrigation, that will have to be proved by actual experiment.

1277. When you gave evidence before, you stated the estimated quantity of water passing Bourke—Question 830—you say that the volume of water passing down the Darling at Bourke is 2,350,000,000 tons of water, equalling three-tenths of an inch of rain over the catchment area per annum—how did you arrive at that quantity? By calculating the discharge of the river from the average height.

1278. Does that give the volume that goes down the river? Yes; it means that three-tenths of an inch over the catchment area would represent that quantity if it all went into the river.

1279. But it does not get into the river? There is the difficulty that it is impossible to say what goes into the river. We have a rainfall of 24 or 25 inches, but only about 1·35 per cent. of that goes down the river.

1280. *Mr. Watson.*] How do you arrive at what percentage goes down the river, unless by measuring the flow at some particular point? We know the velocity of the river at Bourke, and the size of the river.

1281. Then you must have data to go upon to know how much goes down the river? That is all in my annual report. Taking it at Bourke it amounts to 1·35 per cent. of the rainfall. The rainfall amounts to 24 inches.

1282. Over how many square miles? 122,000 square miles.

1283. To get the amount that goes down the river, you have to use as a factor in the calculation the drainage area? Yes.

1284. You know the drainage area? Yes.

1285. You must have some records of the quantity of water going down at Bourke? Yes.

1286. Otherwise you could not arrive at that conclusion? This statement, made by me in 1896, refers to three-tenths of an inch. That means ordinarily 1½ per cent. of the rainfall; the rainfall is 24 inches.

1287. *Mr. Levien.*] Would not the quantity in the river at different points vary very much, owing to the water coming in from springs and other streams? Yes. My own impression is that the water goes underground, and that that accounts for the artesian water.

1288. *Mr. Trickett.*] Out of the 24 inches of rainfall, only three-tenths of an inch passes Bourke? Yes. It is wonderful how there is such a difference in the discharge of the Darling and the Murray. In the Murray, at Euston, 24 to 25 per cent. of the rainfall passes down. That is about one hundred times as much as in the Darling.

1289. How do you account for that? I cannot. The only way in which I can account for it to my own satisfaction, but it may not convince anyone else, is that the water sinks into the ground, especially on the high lands. Lake George is a remarkable sheet of water, from 12 to 15 miles long. I found there that although the hills were very rocky, with no soil on the greater part of them, a mere fraction of the rain goes into the lake,—just about the same proportion as passes Bourke. The hills must be full of cracks.

1290. *Mr. Shepherd.*] On the Lachlan it may rain for a month, and yet not set the river running? Yes. If the rain falls at a certain speed it runs off the surface, but if it falls slowly it all runs in.

1291. *Chairman.*] Does it go to form the subterranean waters? Yes.

1292. *Mr. Trickett.*] Have you said that a very small portion of the water goes away in evaporation? About 5 feet of it goes away on the water surface; but that is one difficulty in computing the discharge of the rivers, that we cannot tell what the evaporation is on the surface of the rivers. You have to take the whole surface of evaporation, and that is not known.

1293. On the Darling does the ground cake when the rain falls upon it? Yes. Nearly all the floods that come into the Darling are floods that are derived from the steep uplands on the western slopes of the mountains. It is not local rain.

1294. Is that kind of country which cakes on the surface good for irrigation? I cannot give an opinion on that.

1295. With regard to irrigation in that part of the country, do you think it is safer to look to the water supply from artesian bores rather than to a river supply? I should certainly think it is safer, because you could depend upon it every year, while you cannot depend upon the river.

1296. As far as experiments have gone, has the boring been very successful? Yes, and the discharge is fairly even.

1297. Do you think there is an immense quantity of artesian water in that part of the country? Yes; that is the only way in which I can account for the small quantity going down the river. I believe it is the opinion of geologists that the present surface there has been filled up by deposition from floods, and that underneath there are an abundance of old river beds occupied by gravel and such things which enable the water to get away.

1298. Then that points to the conclusion that the great storage capacity of that western country is underneath rather than in the few streams which are running there? Yes.

1299.

H. C. Russell, 1299. The country absorbs nearly the whole of the moisture? Yes. Of course, the question now is how much the artesian water is going to appear on the surface. At present we are getting about as much out of the artesian wells as we are getting out of the Darling. I think the probability is that we shall ultimately get ten or twelve times as much. But you cannot tell whether or not it is running away through some subterranean channel to the ocean.

C.M.G.  
12 May, 1899.

1300. *Mr. Shepherd.*] Is the artesian water, as a rule, suitable for irrigation? It depends upon the amount of soluble matter which it contains and the character of it.

1301. Does the quality of the water vary very much in the various wells? I believe it does, but I have no personal knowledge of it.

1302. *Mr. Watson.*] Do I understand you to say that, from experiments of your own, you are of opinion that when the soil cakes on top there is practically no evaporation? Yes.

1303. That would seem to be at variance with the experience of the statements of some of the Government officials engaged in teaching agriculture. The principal of the Hawkesbury College states that the more broken you keep the surface the less evaporation there is; he states that, with the caking, capillary attraction is set up, and that attraction can only be destroyed by breaking the surface? I know they hold that opinion, but my opinion is based on actual experiments going on over many years at the Observatory. We ascertain every day by weighing the soil how much it has lost. We find that when the surface becomes hard the evaporation does not absolutely stop; but it practically stops—the quantity becomes very small.

1304. Do you think that the safest way to retain moisture in the subsoil would be to allow the surface to cake? That is my experience. I know the agricultural authorities say that the way they keep the soil moist is to pulverise the surface; but it does not seem a reasonable proposition. My own experience has been altogether the other way.

TUESDAY, 16 MAY, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
The Hon. ANDREW GABRAN, LL.D.  
The Hon. WILLIAM JOSEPH TRICKETT.

WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.  
ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Hon. Edward Davis Millen, M.L.C., sworn, and examined:—

Hon.  
E. D. Millen,  
M.L.C.  
16 May, 1899.

1305. *Chairman.*] You are familiar with the proposal into which the Committee is inquiring? I have a general knowledge of it.

1306. You have taken a special interest in this matter, have you not? I have given some time and attention to it.

1307. Will you give the Committee your opinion upon the proposal generally? Certainly. To my mind the consideration of this question resolves itself under the two headings—navigation and irrigation—and I will deal with the navigation aspect of the proposal first. The point which, in my opinion, commends this work is the necessity of providing more certain and cheaper carriage for produce in the district under consideration than the people there enjoy at present. The value of the produce raised there is so small that it is unable to stand a very high rate of carriage, and experience teaches me that one of the great obstacles to profitable squatting in that part of the Colony is the very heavy charges involved in the conveyance of wool to a market. Those charges are necessarily highest when those who have to incur them are least able to bear them—that is, in times of drought, when the incomes of the pastoralists are smaller than they are in good seasons. The proposal to lock the river I regard as alternative to railway construction. If it is desired to give an impetus to the development of that part of the country, either the river must be locked or a railway constructed.

1308. *Mr. Watson.*] A railway to what point? A railway to tap the Lower Darling. The question which presents itself is, which would be the more economical means of providing the required facilities—the construction of a railway or the locking of the river? I have no knowledge of the figures submitted to you as to the cost of the proposed scheme; but I would point out that if you construct a railway you incur a large expenditure, and are able to deal with only half the traffic of the district, because in a good season the river will invariably take a very large portion of the traffic, even after a railway is constructed; but if you lock the river, although the expenditure you incur is large, you deal with all the traffic. That the work would be directly reproductive is matter for very grave doubt, but I would point out that the State owns practically all the land from which comes all the traffic which would be affected by the construction of the proposed work, and as the rentals derived from that land are reappraised every seven years, if the river were made navigable the State would receive additional revenue per medium of the Lands Department, on account of the advantages conferred upon its tenants. During a previous inquiry on a similar project, the view which I have just advanced was disputed by many of the Crown tenants; but, as the Land Act distinctly provides that, in assessing rentals, the Local Land Boards shall take into consideration the cost of carriage, and as they invariably take that matter into consideration, I think it cannot seriously be argued that the State would not receive higher rentals if the proposed work were carried out. It would also be possible to collect fees in connection with the navigation of the river, if such a thing were thought desirable; but I do not advocate such a course, because of the indirect benefits which would be obtained from the expenditure in the way I have described, and because I regard the work as very much of the same nature as the undertakings which have been carried out to improve the navigation of the northern rivers of the Colony, and the various harbours along the coast.

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The expenditure upon those undertakings is not expected to return any direct revenue. I am inclined to think that the effect of the locking of the Darling upon the railway traffic of the Colony, and upon the trade of the metropolis, has been very much over-estimated. At the present time some portion of the traffic of the western district always finds its way by river to the sea-board, and that portion of it which comes to our railways is by no means profitable, because, in order to secure it, the Railway Commissioners have to make very considerable rebates upon their ordinary rates. For all traffic other than wool, the river, if locked, would, I think, act very considerably as a feeder to, and a distributor from the railways. Owing to the saving of time which would result, a very large portion of the general merchandise going to the districts concerned,—at least, for a very considerable distance below Bourke—would always be obtained from Sydney. But even if such were not found to be the case, I think that Sydney interests should not be given undue weight. If the traffic of the district found its way by river to ports other than Sydney, it would show that the people in the districts affected found it more profitable to use those ports. But if it is feared that the locking of the river would too severely prejudice the trade of the metropolis, I would suggest that the danger might be got rid of to a great extent by locking the river only between Bourke and Wilcannia. If that were done, I think that the railway traffic would not be affected to any appreciable extent.

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1309. You do not think that the volume of the railway traffic would be reduced appreciably if that were done? No.

1310. *Chairman.*] If the river were locked as far as Wilcannia? It would then become only a feeder to the railways. I now propose to turn to the irrigation aspect of the proposal, and I shall endeavour to show later on that there is no opposition between such irrigation as is possible out there and navigation. In my opinion, all talk about comprehensive schemes is so much nonsense. The general discussion of irrigation matters seems to assume big schemes which will water whole districts, whereby enormous regions will be transformed from naturally poor pastoral country into rich agricultural country. But such a thing has not taken place in any country in the world. The area which it has been found possible to irrigate in any country has been found to be absolutely and relatively very small. In the United States, where they have enormous mountain supplies of water, and great numbers of artesian wells, the total area under irrigation to-day is 8,000,000 acres. This seems a large area, but it represents only '35 per cent. of the total area of that country. Applying the same ratio to New South Wales, we get only 650,000 acres. The Director of the United States Geological Survey Department, Major Powell, states, after devoting some years to a consideration of the subject, that the area of the arid region is 1,340,000 square miles, of which, as an outside estimate, some 3 per cent. may be irrigated. His estimate of the area in Utah, capable of being irrigated—though all of it is not yet irrigated—is 2·8 per cent.; in India, a country of extremely large schemes, only 3 per cent. of the land is irrigated; in France and Spain,  $\frac{1}{2}$  per cent.; and in Italy, where the conditions are peculiarly favourable, and notwithstanding the modern character of the works there, only 5 per cent. These figures, I think, prove that under the most favourable circumstances irrigation is confined to very limited areas. I put the figures before the Committee, because I consider that one of the most serious difficulties which we have to overcome is the getting of the people to be practical in this matter.

1311. *Mr. Watson.*] Are the percentages which you have given percentages of the total areas of the countries named? They give the percentages of the land which can be irrigated in comparison with the whole areas of the countries named.

1312. The figures include, presumably, the areas which will be benefited by irrigation? Yes. There are, of course, very large areas which require irrigation, but which cannot be irrigated, either because of the absence of available water or because of other conditions. The figures I have given perhaps destroy to a great extent the ambitious schemes of many engineers, and, I might say, of most platform orators on the subject; but they bring the idea of irrigation within such practical limits that I hardly think anyone will say that it is beyond the resources of New South Wales. While these figures may be disappointing, it must be remembered that irrigation settlements, considered both as a means of producing wealth and as a means for providing occupation, are out of all proportion beyond ordinary agricultural settlements. In support of this contention I might instance the irrigation colony of Riverside, where 8,000 people live upon 12,000 acres of land, and the annual value of their production is returned at £500,000. In our own colony, at Pera, twenty settlers are in occupation of 400 acres of land.

1313. *Chairman.*] At Pera the water used for irrigation is supplied from artesian bores? Yes. The area of ground necessary for the support of a family is, with irrigation, so much smaller than that required under ordinary circumstances, that the best way of considering an irrigation proposal is not with regard to the area of land which it will affect, but with regard to the number of people which it will profitably provide for. We must in this Colony regard irrigation as an entirely new thing, and I think it is therefore advisable to make a start in connection with it upon a comparatively small scale. It is to be remembered that very few people in the Colony are familiar with irrigation, very few indeed have any knowledge of small husbandry, and a still smaller proportion have any faith at all in irrigation. The absence of a suitable population is, in my opinion, the greatest obstacle to be overcome. In reducing our ideas upon irrigation to practice, there are two methods of irrigation which suggest themselves. The first of these is what I may term the regional method. By the regional method, I mean schemes by which water is conveyed to settlers who are spread out over a whole district. The second method is the colony method, by which I mean the irrigation of a comparatively small selected area of land upon which population is concentrated. I know of no country less suited for the first method of irrigation than New South Wales. In all the districts of the Colony in which irrigation is desirable, settlement is sparse and the holdings are of various sizes, generally very large. But if irrigation is to be economically followed, the line of distributing canal must be as short as possible. To supply the wants of the scattered population which is to be found in one of our pastoral, or semi-pastoral semi-agricultural districts, a canal several miles in length would be required. We know, too, that the cultivation of a holding is generally in inverse ratio to its area. In most of the districts where irrigation is required the land is held in large blocks, and the proportion cultivated is necessarily very small. It would be an enormous undertaking for any individual landholder to irrigate, say, 2,000 acres. But that area would represent but a very small percentage of the total area of many of the holdings through which, in any regional scheme, it would be necessary to carry an irrigation canal. That area of 2,000 acres having been watered, the canal would have to run for probably half a mile before coming to the next irrigable area, and then  
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on again through more unirrigated land. But where those who desire to irrigate are concentrated, it is possible to irrigate successfully at much less expense. An illustration in support of this contention is the case of a town water supply. We have many little towns, with 2,000 or 3,000 inhabitants, who are able to obtain a comparatively cheap water supply, but it would be impossible to supply the same number of people with water at anything like the same rate if the population, instead of being concentrated, were scattered over a large district. The neglect to note this fact has, I think, resulted in the failure of the Victorian irrigation scheme. There large sums have been expended in carrying out schemes for the irrigation of whole districts, in which only a percentage of the people were prepared to irrigate, and they could irrigate only small portions of their holdings. I think that a regional scheme is out of the question under our present conditions of settlement. But, on the other hand, I regard New South Wales as enjoying ideal conditions for the adoption of the colony system of irrigation. In the first place, in most districts the land and the water both belong to the Crown. This is an extremely important point, because in many countries great difficulties have arisen through the ownership of the land being in one set of hands and the ownership of the water in another, and all authorities agree that the two should be associated. The advantages of the colony system are these:—The area required for irrigation being small, it is possible to select a site where the great proportion of the land will be suitable for irrigation. This, too, permits of the economical distribution of water, and ensures that the land for the irrigation of which the water is provided will be used. Where the irrigated area is small, no one will select unless he is prepared to irrigate, because only by irrigation can a sufficient living be made on a small area of land. The question of economical distribution is extremely important, too. It has been estimated that in connection with several irrigation schemes in America at least 50 per cent. of the water is lost by soakage before the stream reaches the land which it is intended to irrigate. On that part of the Darling affected by the proposal under the consideration of the Committee, it would be possible to select several comparatively small areas which would be suitable for irrigation, and which are situated immediately upon the banks of the river. There would, consequently, be no waste of water, and the cost of conveying it to various points of distribution would be the minimum. Then, too, under the colony system it is possible to get what is regarded as one of the essentials of successful irrigation—a dense population. It is generally assumed that close population is necessary in any country adopting irrigation; but that is only a partial statement of the truth. What is required is, that there shall be close population, not necessarily in the whole country, but on the particular areas which are irrigated. Where there are successful irrigation schemes in India and in other countries, such close population exists, and a colony on the Darling would represent one of these large schemes in miniature. Another advantage in the colony method when compared with the regional method is that, because of the close association of the settlers, it is easy to make provision for the profitable handling and marketing of produce. The effect of such co-operation is seen in many of our dairying districts, where the farmers are able to handle their produce much more profitably than if they were isolated. Going back to the district immediately affected by the proposal before the Committee, I should like to point out that the work, if carried out, and if followed by irrigation, would have a distinctly beneficial social influence. Small settlement in the western districts is absolutely impossible, unless in conjunction with irrigation. Homestead leasing has been an absolute failure west of the Culgoa. But our land laws make no provision for any other form of small tenure. Consequently, although out west there are thousands of station employees and other labourers, these people have absolutely no prospect of ever acquiring homes for themselves, or—except in rare cases—of improving their positions. The gap between the position of a shearer and that of a squatter is far too great for any ordinary man to bridge, and even homestead leasing requires too large a capital for an ordinary labouring man to obtain, even if the results were not altogether forbidding. But suitably-selected irrigation colonies would provide means by which men of the class to which I refer, whose capital is chiefly their labour, could make homes for themselves, and could ultimately, as they improved their holdings, win from the soil a modest competence. I do not for a moment pretend that it is possible to settle an enormous population along the entire course of the river within a reasonable period. We have not a sufficiently large number of people in the Colony for such an undertaking, and, even if we had, it might be doubted whether, with our limited knowledge of irrigation, it would be advisable to settle a very great number of people upon the soil in that way all at once. I am convinced, however, that if only limited areas were dealt with, and made available for settlement under the conditions to which I have referred, the land would be gradually taken up by men who at present have absolutely no chance of acquiring homes of their own. It may be asked why no settlement of this kind has yet taken place. The answer is that there must be a beginning to everything. At the present time our land laws entirely prevent anyone from acquiring small portions of land for such a purpose, and even if it were otherwise an individual irrigator working alone could hardly hope to succeed. Irrigation requires some form of joint effort, and the cost to an individual irrigator of raising his own water supply would be much greater than the cost of providing a joint supply where a number of people were closely settled. Before settlement of this kind can take place, the State, as the owner of both land and water, must provide the necessary facilities, and make them sufficiently attractive to induce people to avail themselves of them. Such settlements as I refer to, if situated at convenient points along the river, would not materially interfere with the present pastoral lessees, because the area required for an irrigation colony is, comparatively, so small, that its withdrawal from an ordinary pastoral lease would be of very little moment. If this work were carried out, and irrigation colonies created along the river, the present holders of land there would be tempted to irrigate to a much larger extent than they are irrigating now, because they would be assured of a permanent water supply, and, the river being maintained at a permanently higher level, the cost of raising water from it would be reduced. A great deal of agriculture is being done in a small way in the districts under consideration, and whereas a few years ago it was quite a rare thing to see any cultivation around a homestead, it is to-day quite unusual to see a homestead without cultivation. The first problem which the pastoralists had offered to them for solution was how to obtain sufficient water. I can remember a time when it was confidently affirmed that it would be impossible to provide water upon many large areas of that country; but to-day I consider that the water problem has been solved, and the question that now presents itself to the graziers there is how to obtain an adequate a food supply for their stocks as they have obtained a water supply. They are beginning to turn their attention to that question; and, although their efforts have been timid, I know of no case in which those responsible have failed to continue them. Every year sees a larger area brought under cultivation,

cultivation, and although it is a common thing to hear the lessees declare that it does not pay to grow fodder, they continue to grow it, and most of them are steadily extending their operations. Wherever irrigation has been tried there has been but one result, and that an extremely satisfactory one. The figures showing the amount of produce obtained from irrigated land are so phenomenal as to often excite doubt. At Toorale, Mr. McCaughey's property, I have seen a heavy crop of lucerne cut within three weeks of the previous cutting, and Mr. McCaughey has informed me that in the year 1888 he took eight crops off a lucerne patch which was irrigated, and also fed some stud sheep upon it. That is only one of many instances which I could give as showing the profitable results of irrigation. What has deterred many men from engaging in irrigation is the knowledge that when water is most required it is least available. In an ordinary good season, when the river is running at a tolerably high level, little or no irrigation is required. It is in times of drought, when the river is often reduced to a miserable trickle, that the water is most required. And if, by the locking of the river, the people near it were assured of a permanent supply of water, I feel confident that they would steadily engage in irrigation. I will now deal with the placing of the water upon the land. The only way in which this can be done in the Darling River district is by pumping. There is, of course, no difficulty in lifting the water the height which it has to be elevated there, except the difficulty of meeting the expense, and the question to be considered is—Can the water be placed upon the land at such an expense as would render the use of it profitable? I understand that the engineer's estimate for placing the water on the land is from 20s. to 25s. per acre per annum. That is the information which was given during a previous inquiry; I do not know if the same estimate has been put forward on this occasion. Now, most land-occupiers, if asked if they could pay 25s. per acre for a water supply, would unhesitatingly reply in the negative. They would reply in the negative, because they consider only the returns which they are getting from their land at the present time. To a grazier who pays a rental of 1d. per acre per annum, and gets about 6d. worth of wool to the acre, a charge of 25s. per acre for water seems quite prohibitive; but that charge must be considered in relation to the value of the produce which the water would enable one to raise. The only way which I can discover for determining whether such a charge would be prohibitive in this country, is to compare it with the charges paid in other countries where irrigation is employed. There is absolutely no such thing as cheap water; because, wherever water has been made available for irrigationists at a cheap rate, the owner of the land which is irrigated has been able to obtain a higher rental for the land, or if he sells it, a higher price. Where a water right is held apart from the land, that right is sold much as mining shares are sold, quite regardless of what it cost to obtain the water supply. The share, or "right," as it is termed, is sold for a much higher price than the proportion of the cost which it represents, so that to the actual user of the water it makes very little difference whether the irrigation scheme has been carried out for much or for little money. Having made that general statement, I propose to give a few figures which show what is really paid for water in other countries, and I would draw the attention of the Members of the Committee to the fact that the charge for water is not the only charge which has to be met. The cost of irrigation to the farmer is what he has to pay for water plus what he pays for his land, and plus what he pays in general rates and taxes. It is very necessary to remember that fact, because most of the figures I am about to quote are for the supply of water only. As in the Darling River district the value of the land is nil—we may regard it as nil when it can be rented at 1d. per acre per annum—the cost of irrigation to the irrigator would be practically only what he has to pay for the water he uses. In other countries where they are paying perhaps less for water than it is estimated it would cost here, they are paying a great deal more for land. In no case, with which I am acquainted, are they getting their land and water for such a low price as it will be possible to let people have both in this colony if the official estimate of 25s. per acre for water be correct. There is some little difficulty in ascertaining exactly what is paid for water in connection with many of the irrigation schemes of India and other places, because the charge is not so much per annum, but so much per crop, and a summer crop is charged for at one rate, while a winter crop is charged for at another rate. In connection with many schemes, too, the charges vary according to the nature of the crop. For instance, sugar-cane requires a great deal of water, and the charge for that crop is greater than the charge for other crops.

1314. Are they likely to grow sugar-cane out on the Darling? No. I think they can grow something even more profitable than sugar-cane out there. In connection with the schemes for which water is drawn from the Ganges, the price ranges from 6s. to 8s. per acre per crop. Most of this land is cropped twice in the year, so that to obtain the charge per annum it is necessary to double these figures. In Bengal the Government has expended £6,000,000 in providing for the irrigation of 550,000 acres. That means a charge of 11s. per acre for interest alone, while the expense of maintenance would be a considerable addition. In the Surhind canal scheme £4,700,000 were expended to provide for the irrigation of 640,000 acres. Taking the cost of maintenance in this case as equal to that in the other case—that figures out to 3'66 per cent.—and allowing interest at a trifle over 4 per cent. we have a total charge of 8 per cent. which means that the scheme requires an annual charge of 12s. per acre to meet the expenditure. In giving these figures I may explain that in one case I was able to obtain the rate of interest provided for, and in the other the cost of maintenance, and I have applied the figures in one case to the other, and *vice versa*. In another Government scheme—the Tanjore scheme—the State receives 16 rupees per acre per annum.

1315. *Mr. Watson.*] What is the rupee worth—1s. 2d.? I have taken it as worth 1s. 2d. In the Bombay district, where a great deal of the water is supplied from reservoirs, the charge at Ekruk is 20s. per acre for water, which is only half the rate charged in connection with the Krishna canal supply, and is about the lowest rate in the district, 16s. per acre being the minimum. In connection with another scheme in the Bombay district—the Khadakvasla scheme—the average charge is 18s. per acre. I draw attention to the word "average" because the actual charge is per crop, and as the charges for many crops range as low as 10s., the charges for many other crops must be correspondingly high.

1316. *Chairman.*] Do those charges include the cost of distribution? They do and they do not. One of the difficulties in the way of an understanding of the cost to the irrigator in India is that many of these canals merely supply water into a reservoir, and the irrigator has to lift it from the reservoir. A very small proportion of the land irrigated derives its water direct from the canals, and in some places there is a very severe penalty inflicted upon those who attempt to take water direct from the canals. At Nera the charge is 8s. per acre for the four hot months of the year, and 16s. per acre for the whole year. In connection with the Sone canal the charge from April to June is 8s. per acre, and there are lower charges

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charges for the succeeding winter months. For a crop of sugar-cane 12s. per acre is charged during the months when it requires watering. At the Sidna settlement, where the land is extremely uninviting, and where an irrigation scheme has been carried out avowedly for the purpose of attracting settlement in a rather lawless district, and without very close regard to financial considerations, the following charges prevail:—Rent, 1s. 4d. per acre; spring watering, 4s. 6d. per acre, and autumn watering 5s. per acre—a total charge of 10s. 10d. per acre. To this is to be added 3d. in the 1s. to meet rates and fees to local officials, making altogether 13s. 7d. per acre. Of course, to the charges which I have enumerated in connection with other schemes must be added the rent of the land to which the water is applied. I can get no definite information as to what that charge is, but I will present certain figures to the Committee which will enable members to form an approximate idea of it. My information is some ten or twelve years old, but it is the latest I could find in my hurried search. The Indian land revenue at the time my information speaks of was £25,000,000, so that it will be evident that, in addition to the charges for water, irrigators there have to pay a very considerable amount for their land.

1317. *Mr. Watson.*] Is the land revenue you speak of obtained from taxes? No. In India the Government is nominally the owner of the land—in some districts absolutely, though in other districts there is an intermediary holder. This personage was originally the local head man, who used to collect the taxes for the older governments. When the present Government was established, it to some extent recognised him, and used him to collect a stated sum per annum. Of course, he screws as much more as he can get from the unfortunate occupants of the land. That system prevails in two presidencies, and it is therefore difficult to know exactly what rent the occupants of the land pay; but £25,000,000 is the aggregate land revenue received by the Government of India, a fact which evidences that the occupants of land pay very heavy charges for it. Some idea may be gained as to what is paid for irrigated land from the fact that the average rent for the whole district of Bombay, including the area which pays no rent, is 1s. 11d. per acre. It may be taken for granted that the irrigated land pays a much higher rental than the unirrigated land, and therefore, as a good deal of land pays no rent at all, the charge upon the irrigated land must be pretty high. In the Madras district, the average rental is 4s. 2d. per acre, and the same remarks apply. In Italy, a country frequently referred to as one in which water is cheap, the rent of irrigated land is £6 per acre, and the water charge ranges from 8s. to 12s. per acre. In the western states of America the charge for water ranges from 10s. to 25s. per acre per annum, and in France and Spain from 20s. to 28s. per acre per annum. With regard to Spain, the charge for water is to be considered in conjunction with a rent of £5 per acre; similar land, not watered, being rented for 5s. per acre. In Egypt—another country supposed to have a particularly cheap water supply—there were ten years ago, and the number has since increased, 476 steam pumps, 107,000 Persian wheels, 150,000 men, and 60,000 animals engaged in connection with the lifting of water as distinct from the cultivation of the land. This entailed a charge of 4s. per acre per annum for water, to which must be added a land tax of £1 12s. per acre per annum. This land tax is probably a form of rent. The total charge to the irrigator is, therefore, £1 16s. per acre. Mr. Deakin, in one of his works written after his trip to America, expressed the opinion that wheat could be grown in Australia if a charge of from 20s. to 25s. per acre had to be paid for water, and from 5s. to 10s. per acre for land. In considering the various Indian schemes which I have mentioned, it must be remembered that those who have to pay for water and for land have also to pay a large amount for the employment of labour. The construction of many of their distributing canals is carried out upon a kind of communist system, so much labour being required for the occupants of each village. That system necessarily lessens the cost at which the Government can supply the water. I have given these figures to the Committee in order to show that the cost of pumping is not, as it is generally supposed to be, prohibitive. I want now to show that the notion that irrigation to be successful must necessarily be by gravitation is a mistaken one. In India there are thousands of wells and rain-fed tanks, and they water a very much larger area than is watered by canals. In the Bombay district 118,000 acres are watered by canals, and 720,000 acres from other sources of supply. A very large proportion of the water obtained from these other sources has to be lifted by some method or other. It is generally lifted by very crude appliances, worked either by hand or by bullocks. Even where the water is delivered from canals, the expenditure of some labour is necessitated in lifting it for purposes of distribution. If allowance is made for the cost that this must entail, it will be seen that the cost at which water could be pumped from such a river as the Darling would, owing to the cheap price of our land, bear favourable comparison. In the United States of America, and particularly in Colorado, a very large area in the aggregate is irrigated in the way I speak of; but by means of much better appliances. A pumping scheme has one great advantage over the correspondingly expensive gravitation scheme, inasmuch as in a good season it permits of a considerable saving being made, because, the pumps being idle, there is a reduction in working expenses, whereas with a gravitation scheme there is no saving, but, on the contrary, the expense is often considerably increased, because of the risk of damage by flood. In regard to pumping schemes, I should like to quote a short sentence in reference to the Balranald scheme, which appears in Colonel Home's report:—

The lift would have been moderate, the water would have been easily distributed over the land—which is said to be suitable to irrigation—while the mean rainfall is only 13 inches. There was, therefore, a fair chance of success if the works had been properly carried out. Small schemes of this kind in the neighbourhood of townships where the supply of water is assured and other conditions are favourable would be of considerable use in spreading the practice of irrigation, and in gradually turning out men who have had experience in this class of agriculture.

The value of that statement is, I think, very considerably increased by the knowledge of the fact that, generally, Colonel Home's report was of a most depressing character. If I may be permitted to say so, he was, evidently, so familiar with the gigantic schemes of India that he was hardly able to recognise the possibility of more modest efforts succeeding. Practically, Colonel Home's report resolves itself into the statement that we cannot adopt Indian methods in Australia. I have endeavoured to show why I favour the establishment of irrigation colonies rather than large district schemes. It may be said that for irrigation colonies artesian supplies offer most attraction; but I would point out that artesian water in our experience is probably the most expensive. The Mines Department has prepared a table showing the total amount expended in boring and the volume of water obtained, and it has applied the charge for boring to the volume of water obtained. That, I think, is a perfectly fair thing to do, seeing that the object of obtaining this water was primarily to give a supply to the stock routes of the Colony; but it hardly states the case accurately from the standpoint of irrigation. Much of the water obtained

obtained from artesian bores is unsuited for irrigation, and it would therefore be fair to charge the cost of bores from which unsuitable water is obtained upon the cost of obtaining suitable water in order to ascertain exactly what suitable artesian water costs. It can never be known with certainty whether suitable water will be obtained from a bore, and if the cost of obtaining suitable water is calculated in the way I suggest, it will be shown to be extremely high, and, I think, higher than the cost of pumping water. Then, too, there are other drawbacks to the adoption of an artesian supply for irrigation purposes. One of these is the difficulty of getting a sufficient supply within a given area. Very few bores give a sufficiently large supply to irrigate an area upon which an entirely successful irrigation colony could be established. In New South Wales the average supply of a bore is probably not more than 500,000 gallons per day. What amount would be required for irrigation under the conditions prevailing in this country is not quite certain; but it would probably not differ greatly from that required under apparently similar conditions in the western states of America. Upon that comparison it would not be safe to look to any bore to irrigate more than 200 to 250 acres. Upon such an area it might be possible to establish small settlements like the Pera settlement, growing high-price products; but such settlements must be extremely limited, because the produce would have to be of a character such as is readily salcable in the neighbourhood of towns. It might be contended that if the supply from one bore were not large enough other bores could be put down. But there is a considerable risk in following out that practice, because of the mutual interference of bores which are put down in the same neighbourhood. This interference is not merely the creation of theory, it is established by actual experience in America, where, when bores have been multiplied in a locality, after a certain point has been reached the aggregate flow has not increased, and occasionally some of the earlier bores have altogether ceased to flow. I should like to read in this connection an extract from a statement made by Major Powell, who is chief of the United States Geological Survey. He says:—

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Something can be obtained from artesian wells, but not a very great amount. The experience from artesian wells fully warrants what I am stating now. They have been bored at different places in the world, and used for irrigation wherever they could be used; and it bears out the statement I make, that the supply from artesian sources is always limited; is always comparatively small; and that no great area can be irrigated thereby. If all the artesian wells in the world, which are used for irrigation, were assembled in one county, in Dakota, they would not irrigate that county. . . . We see an artesian well in the arid country with a bore of 4 to 6 inches, pouring out a fine stream of water; and it looks a large stream, and strikes the eye with a good deal of force; but when you actually compute the amount of water it supplies you find that amount is small.

As to the possibility of the interference of one artesian bore with another, Major Powell states:—

If a series of neighbouring wells be bored at the same level, the individual discharge of all the wells is progressively diminished, and the total discharge is at first progressively increased, but the limit of discharge for the locality is finally reached, and then the boring of additional wells gives no advantage. If two wells in the same vicinity head at different levels, the one at the lower level discharges more water than the other, and the flow of the well, or of a group of wells, may be entirely destroyed by the sinking of new wells at a lower level. The same effect is produced by pumping water from these wells, which is equivalent to a discharge at lower level.

In view of that statement it is evident that there is a very considerable risk in multiplying bores in the neighbourhood of each other. It also bears out my contention that we cannot have anything more than small irrigation settlements in connection with artesian supplies. I do not wish it to be in any way supposed that I am at all opposed to the use of artesian water for irrigation purposes. On the contrary, I have endeavoured, so far as I could, to direct attention to what may be done in that direction. But, because of the limited supply and the location of these bores, they are chiefly suited to individual efforts at irrigation for the growing of fodder in connection with grazing pursuits. It is hardly possible to look to them to provide a supply for irrigation settlements of the character I have referred to. I should like now to say a word or two as to the value of irrigation, not merely in providing an insurance against drought, but also in providing a fertiliser. In considering the cost of irrigation, it is not fair or accurate to consider that cost as against the value of an ordinary crop. The effect of irrigation is not merely to make a crop certain; irrigation increases a crop to a phenomenal extent. It is stated on the authority of "Mulhall" that in France irrigated land yields produce valued at £3 per acre more than the produce of unirrigated land. In Cyprus irrigated land yields crops three times heavier than the crops obtained from unirrigated land. In one of the most useful American publications that I know of, it is stated by Mr. Hinton, one of the best authorities on this subject, that—

Evidence taken before the Senate Special Committee on Irrigation in 1889 shows that the production of grain can be doubled by means of irrigation within the arid region over equal areas within humid States; but the production of root crops and garden vegetables can be increased from five to tenfold over the same crops elsewhere, and that in the production of special products over large areas where the climatic conditions are favourable to them; aridity aside, the section possessing constant sunshine, and soils laden with mineral elements, will have thorough irrigation, an advantage and security no other region on the continent can possess.

Bearing upon that statement, I may mention that at Wilmoringle, a station upon the Culgoa River, 103 tons of hay—nearly 3 tons per acre—were taken from 35 acres of irrigated land. The total crop was heavier than that, but a large quantity was consumed by the horses used in conveying the hay from the land upon which it was grown to the homestead, a distance of some 18 miles, and that quantity was not included. An ordinary farmer would consider 1½ ton to the acre a fairly good crop, so that irrigation may fairly be held responsible for the other 1½ ton, and it will be seen that the extra crop very much more than paid for the cost of the water used. I should like to draw the attention of the Members of the Committee to a fact that is recognised as the action of stock upon the catchment area of the Darling. Owing to the consolidation of the soil there by the tramping of stock, and the tracks made by the stock in going to water acting as small gutters, a larger percentage of the rainfall now finds its way to the watercourse than formerly did so. The fact is generally recognised; but its effect upon the navigability of the river, and also upon irrigation, has not, I think, been sufficiently considered. It will be noted that over each successive period of years for some time past the Darling has continued navigable for longer stretches. From 1879 to 1886, a period of seven years, the mean height of the river at Bourke averaged 7 feet 7½ inches. During the next eight years, it averaged 14 feet 2 inches. The percentage of water falling within the catchment area that passed Bourke in the years between 1879 and 1886 was 1.12, while during the next seven years it was increased to 1.80, and if the consolidation of the surface continues to take place, it may have a very important bearing upon the question of the supposed conflict between irrigation and navigation. I contend that so long as the river is running irrigation will have absolutely no effect upon its navigability; while the navigation of the river certainly has no effect upon the quality

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or quantity of the water, because the water is just as suitable for irrigation after a steamer has gone over it as it was before. The only question is whether at any particular time the supply may become so low that navigation may be threatened. During my seventeen years' knowledge of the Darling, I have only known it to stop running once; and I am of opinion that all the irrigation which is likely to take place, even under a distinctly enterprising public policy, would not for very many years to come, take from the river the quantity of water which now passes down it and enters the ocean. If it is correct that more and more water is finding its way to the river, it follows that the chances of the river stopping are becoming less and less every year, and so long as care is taken to prevent more water being drawn from the river than now goes to waste, there can be no interference with navigation by irrigation. It will indeed be very many years before even a very small portion of the water which now runs to waste is used for irrigation, and a very much larger population than we now have will be required to use it. Colonel Home, at pages 16 and 17 of his report, speaking of the Menindie Lakes, points out that upon existing levels no replenishment of the lakes worth mentioning could have taken place during the years 1880 and 1885; but he curiously omitted from his calculation the very important difference which would be represented if, instead of having the river in its natural condition, it were permanently locked. Assuming that a weir were placed somewhere below the in-take of the Menindie Lakes, those lakes would be replenished by a rise of 12 feet less than that upon which Colonel Home bases his calculation. One important effect of having the river locked upon schemes such as the projected Menindie scheme would be that comparatively small freshes, which to-day are lost in the waterholes on the higher stretches of the river, would travel right down, and as a consequence the supply to the "down river" frontages, instead of being in any way diminished, would be very materially increased.

1318. *Chairman.*] How long has the Bourke weir been in existence? I think it was completed about two years ago.

1319. Has advantage been taken of the water there for irrigation purposes? There is no one to take advantage of it. There is any amount of water, and any amount of land, but no one can get hold of the land. One of the finest pieces of land for irrigation purposes is situated at North Bourke, 2 or 3 miles from the township, but it is locked up in reserves and in other ways. Twenty-acre blocks have been offered along the river, and some of them have been taken up by dairymen and others, who, with their puny pumps, do a little irrigation; but before any scheme of irrigation can succeed it will be necessary to have big pumps.

1320. Do you think that advantage would be taken of the water if the State erected pumping machinery? I think that if the State erected pumping machinery and threw open the land in blocks of from 10 to 100 acres, it would all be taken up within twelve months. Carriers who now have to make one trip after another, merely to maintain their homes in the town, and to pay forage bills, would grow their own fodder if they could obtain small farms.

1321. Have you any idea as to the total area of land suitable for irrigation in the Bourke district? No; I do not think that the question is quite material just now.

1322. If you have not suitable land —? You have more land there suitable for irrigation than you have people to till it. At North Bourke there is a patch of land running right on to the river, and containing at least 8,000 acres, where you could commence to irrigate within 100 yards of the banks. That patch was above the level of the big flood in 1890, and was the site of the encampment at which the people of Bourke took refuge. There are several other places down the river equally good. With regard to the character of the weirs which it is proposed to construct, although it may seem presumptuous for a layman to attempt to criticise the opinion of a professional man, I feel that a very serious difficulty will be encountered if fixed weirs are constructed. We have several instances which illustrate what would happen if such weirs were made. The river is intersected at various points by rocky bars, and wherever these bars exist it has cut a fresh channel for itself. The Fisheries, at Brewarrina, is a very good instance. Above that point the river has cut the Cato on the one side and the Tarrion on the other. If movable weirs, such as that at Bourke, are constructed, the river will in flood-time keep to its natural channel.

1323. I think it is contemplated to take advantage of the rocky bars as sites for the weirs? Yes; but I know that wherever these bars occur the river cuts a new channel. Colonel Home's testimony upon the point is that the Bourke weir is answering well, and indicates how, at a very small cost, the river may be permanently locked.

TUESDAY, 23 MAY, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.	WILLIAM THOMAS DICK, Esq.
The Hon. ANDREW GARRAN, LL.D.	JOHN CHRISTIAN WATSON, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Hon. Edward Davis Millen, M.L.C., sworn, and further examined:—

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1324. *Chairman.*] Have you had an opportunity of reading the evidence which you gave last week? Yes.

1325. Do you wish to make any alteration or additions to it? I have no alterations to make; but, if the Committee wish for further information, and will ask me questions, I think they will in that way more readily get at what they want than if I make a second statement.

1326. *Dr. Garran.*] I understand that you resided for some time at Bourke? Yes.

1327. You are pretty well acquainted with the traffic which concentrates in Bourke? Yes.

1328. And, I presume, with the opinions and views of the residents of the districts? Yes.

1329. You were examined before a previous Committee with reference to a proposal to lock the Darling above Bourke? Yes.

1330. I gather from a perusal of that evidence that you then preferred that public money should be expended in locking the river than in making a railway to Brewarrina? Yes. 1331.



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1331. Now that it has been decided that the railway shall be made to Brewarrina, would you still recommend the locking of the river from Bourke upwards? That is not the proposal now before the Committee.

1332. No; but if that proposal were before us, would you still recommend it? Not if the locking of the river were to stop at Bourke; but, if the river were locked below Bourke, it would be a distinct advantage to have it locked above Bourke also, because the conservation of water above Bourke would make a more perfect work. But I could not ask the State to lock the river above Bourke merely that water-carriage between Bourke and Brewarrina might enter into competition with the railway that is being constructed.

1333. That is to say, you would not, for navigation reasons, lock the river above Bourke, but for irrigation reasons you would? Yes.

1334. The project that we are now considering is the locking of the river below Bourke; I presume that it differs from the former project in its effects both upon the trade of Bourke and of the railway? Only in question of degree.

1335. If the river were locked above Bourke the traffic would be down stream to Bourke? And up stream from Bourke.

1336. If this proposal is carried out, the desire will be to bring the traffic up stream? The traffic comes that way now to some extent, when the river is navigable.

1337. How far up the river do you think the traffic would come to Bourke, supposing the proposed scheme were carried out? I regard Bourke as the centre of a district the south-west boundary of which is 150 miles below Bourke.

1338. How far would that go;—would it take in Tilpa? Yes; it would be somewhere in the region of Tilpa.

1339. You think that traffic would come from Tilpa to Bourke if the river were locked? Yes; in normal seasons.

1340. But not from places so far south as Wilcannia? No.

1341. Do you think that if we locked the river as far as Tilpa we should add to the trade of Bourke? I do not know that you would; but you would furnish the people of the district with a cheaper and more certain means of reaching Bourke. They already send produce there; but in a season like the present they have to pay enormous sums in order to do so.

1342. Such a work would prevent the people of Louth and Tilpa from ever suffering in times of drought from want of access to Bourke? Yes.

1343. They would always have a cheaper means of getting to market, and could never be cut from provisions? Yes.

1344. You are aware how completely Wilcannia has been cut off from supplies this season? Yes.

1345. If the river were locked as far as Wilcannia that town would never again be so completely isolated as it is now? No.

1346. But the people who sent produce from there would have to pay more than they do at present;—not only would they have to pay the railway charges, but they would also have to pay the river freight? Now they pay the railway charges, and the charges made by teamsters.

1347. Do they not get their supplies from Broken Hill now, using camels for their transport? That system has lasted for a few months only. It will always be dearer to take produce goods to Wilcannia by railway to Bourke, and thence by a road, than by railway and thence by river.

1348. Have you known goods to be sent to Wilcannia from Bourke by teams? Yes.

1349. What would be the cost of transporting such goods from Sydney? I could not give figures which would be of any value to the Committee. The charges upon different commodities vary so, that it requires a person acquainted with the particular business to give answers of anything more than a general value.

1350. Have the storekeepers at Wilcannia preferred that route to the route from Broken Hill by team? It sometimes happens that one road may be fairly good for teams, while another road, although perhaps a little shorter, is not in good condition. All circumstances of that kind influence a storekeeper in determining which route he shall choose.

1351. You said the other day that you do not advocate the levying of tolls on the river, because you would put the proposed improvement upon the same footing as the improvement of a coastal harbour, or the making of a road? Yes.

1352. The proposal before us—to lock the river from Bourke to Menindie—will cost £500,000 to carry out? Yes.

1353. And we have been told by a witness who seems to know the river very well that the very worst part is that between Menindie and Wentworth? That is only half stating the case. In one sense the portion of the river between Menindie and Wentworth is the worst; but that is because of the obstructions to navigation there. The further you are down the river, the longer do you find the period for which the river is naturally navigable.

1354. Mr. Shainwald, who is the agent for a firm of steamer-owners on the river, told us that more accidents occurred between Menindie and Wentworth than on any other part of the river, that boat-owners suffer more loss on that part of the river than anywhere else. Therefore, to make the river navigable all the year round, we should lock it right down as far as Wentworth? The accidents to which Mr. Shainwald refers are not due to the absence of water.

1355. Are they due to snags? To snags, to rocky obstructions, and to other local difficulties.

1356. Do you think that if we locked the river as far as Menindie we should practically make the river navigable for nine months in the year? For at least nine months. My impression is—though it is one that can be confirmed or disposed of only by experience—that if the river were locked as far as Menindie, the holding back of so much water would tend to keep the lower portions navigable without any further works.

1357. The proposed weirs would not hold back any water that would be available for improving the navigation lower down than Menindie? The river rarely stops now.

1358. But all the water that now comes down the river would go over the weirs? I do not think it would travel as fast as it does now, supposing the river were locked. Station-holders, although they cannot retain the water altogether, now hold it back for a long time by means of tailing dams, and my opinion is, that a succession of locks would keep the river navigable below the last lock for a longer period than that for which it is navigable at the present time.

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1359. But when the weirs had held back all the water they could the conditions would be the same as they are now? If the river were locked a small fresh would run right down, without apparent loss, but now, when the river is empty, it will not run 50 miles. These small freshes are continually occurring. I have seen many a fresh pass Walgett and not get below Boorooma, which is halfway to Brewarrina. If the river were half-full, however, such a fresh would run right through.

1360. But if the locks are all full, and the river up to the tops of the weirs, whatever is coming down over the uppermost weir will continue right down the stream? Yes; but now a great deal of the water does not go right down the stream. The advantage that you would get from all the water passing right down the stream would be that this water would tend to keep navigable the portion of the river below the last lock for a longer period than it keeps navigable now.

1361. Why does not the water go right down now? When the river is empty a great deal of water escapes into various waterholes and by soakage. If the river were kept half-full there would not be so many waterholes to fill and no soakage.

1362. That is to say, that if we kept the banks covered with water up to a height of 6 feet, and all the ana-branches and pools full up to that level, any water coming down would come right down without loss from further soakage, and be available for navigation in the lower reaches? Yes. Under such conditions nearly all the water coming into the river would pass right down it. Of course, a small portion must be lost in any case.

1363. Your opinion goes to prove that it would be sufficient to lock the river only down as far as Menindie? Yes; until we can see what effect that will have. If Nature will do something for us, we may as well let her.

1364. We have it in evidence that the river is not navigable from Wentworth to Morgan for two months in the year? Well, a break of that length of time is not serious out there.

1365. I presume you know something about the interests of Wilcannia in this matter? Yes. My knowledge of the Darling extends from below Wilcannia to above Walgett.

1366. Speaking in your own person, do you think that the interests of Wilcannia lie more in the construction of a railway from Cobar, or in having the river locked from Bourke to Wilcannia? I am certain that the interests of Wilcannia will be better served by the locking of the river, but I should like to add that I believe that the inclination of the Wilcannia people is more towards a railway—that being due to the fact that in this country people have very little knowledge of the advantages of water-carriage, and are, to a certain extent, prejudiced against it.

1367. You think that their preference is a preference of ignorance? Yes.

1368. When you say that the interests of Wilcannia lie in the locking of the river, you mean the interests of all whose trade centres in the river? I mean the interests of the district, rather than the interests of the town.

1369. If it would take £500,000 to make a railway from Cobar to Wilcannia, and about the same sum to lock the river from Bourke to Menindie, you think that the money would be better spent in locking the river? Personally, I would rather see £2 spent on the river than £1 on the railway.

1370. But you think that the residents upon the river would not take the same view of the case? The river residents would naturally prefer the locking of the river, just as the landholders through whose runs a railway would pass would prefer the construction of a railway; but, taking the townspeople of Wilcannia and a section of the residents of the district, I believe that their votes would be cast for a railway as against the locking of the river.

1371. Comparing the conflicting claims of irrigation and navigation, which interest do you think ought to carry the day when there is a conflict? I do not regard them as coming into conflict.

1372. But suppose they did? I cannot see that they would.

1373. Well, take the circumstances existing at the present time when there is not a bucket of water to be spared at Bourke; do you think that the first chance of a fresh should be for the advantage of navigation or for the advantage of irrigation? I cannot take existing circumstances and compare them with the state of things which would exist if the river were permanently locked.

1374. Suppose that the river were permanently locked, and that the water coming down at Bourke was not sufficient to supply the leakage at the locks, so that every bucket taken for irrigation weakened the chances of navigation? In supposing that I should suppose something which would not happen. If the river were permanently locked, enough water would be going down to satisfy both interests.

1375. Every steamer that comes up or goes down the river wastes a whole lock full of water? The steamers would not waste as much water as we allow to flow to waste now. There is a very large amount of water flowing past Bourke at the present time, though the quantity in the river-bed appears to be very small. If you started to pump it out, you would find that the quantity of water available was very large. The only limit that you could put upon the use of water for irrigation would be by ascertaining what quantity of water passes to waste. So long as the irrigation works did not take from the river more water than was flowing to waste, they could in no sense impair the navigability of the stream.

1376. Suppose your view should turn out to be incorrect? In that case I would say that ever since the country was settled, river navigation has been called upon to submit to periods of intermittence, and that it would not hurt the steamers to have to tie up for a month or two.

1377. At the present time the people out in that district are always facing the risk of a stoppage of navigation, and lay in their stores accordingly; but if the river is regarded as permanent, and they commence to live hand to mouth, a stoppage of navigation would be a very different thing? They would not in any case be living hand to mouth when a stoppage of navigation occurred, because they would know some months ahead that it was likely.

1378. At any rate in such an event you would vote for irrigation? I should be prepared to put a stop to navigation. I would point out that the proposal before the Committee has been designed to accommodate the boats which are now on the river; but if the river were permanently locked we should probably have a speedier and more handy class of boats. The present boats were built with the knowledge that occasionally they might have to be tied up in a waterhole for many months at a stretch.

1379. But if the river were permanently locked, there would be no need to suspend navigation altogether; it would be only the upper reaches that would be unnavigable; a drought would have to be very severe to render the lower reaches unnavigable? As I have known the river to stop running only once in nineteen years, I say that there would always be a flow of some kind. Therefore, I do not anticipate that the river would stop running if it were permanently locked.

1380.

1380. While, in a very dry year, steamers might not be able to get up to Bourke, they would be able to get to within at least a lock or two of Bourke. The whole river would not be dried up? No.
1381. If we desired to obtain revenue from the expenditure of £500,000 in locking the river, do you think it would be possible to obtain by any kind of tax anything like interest upon the sum expended? If you want a direct return it could be collected; but, as I pointed out, such a return would make no difference to the Consolidated Revenue, though it made a difference to the returns of a particular Department. If to-day it costs a runholder £5 a ton to take his wool to Bourke, and he were enabled by reason of the proposed river improvements to take it there for £2 a ton, the Local Land Board would take from him the saving of £3 a ton by imposing upon him additional rent equivalent to that amount. If, on the other hand, you levied such river tolls as would bring his freight charges up to £4 a ton, the Local Land Board would only increase his rental by an amount equivalent to £1 a ton.
1382. If you levy a charge for the work by increasing the rental of land in the district, you levy a tax upon only one class of settlers there? Yes; but as that class has to pay for the maintenance of the towns and the industries there, the evil would work its own cure.
1383. But if, on the other hand, you levied a charge upon the steamboat proprietors, the storekeepers and their customers would have to pay part of it? The customers of the storekeepers are the men whose land is assessed by the Lands Department.
1384. And the men whom the runholders employ? It would come back to them in any case.
1385. If the well-sinkers and other employees in the district had to pay a little more for the goods they consume, would it in the long run affect the squatters? I doubt if the difference of £1 a ton in the carriage of ordinary commodities, such as the men of whom you are speaking consume, would have any effect upon the price of those commodities.
1386. Do you think that the storekeepers would pay the charge, and not ask more for their goods? I do not think that they would. A difference of £1 a ton upon a freight of clothes, we will say, could not be apportioned out among the various articles, so as to affect the price of, say, a pair of trousers.
1387. But do not storekeepers always fix their prices so as to cover freights? Yes; but there are some articles upon which a difference of freight would be so infinitesimal that the storekeeper cannot allow for it in connection with them. In such a case they must make up the difference in connection with their bulk goods, 99 per cent. of which go to the squatters.
1388. Then you think that the man who, in any case will have to pay the tax, will be the squatter? Yes—the homestead lessees and the pastoral tenants. They will have to pay the bulk of it.
1389. I suppose that very little besides wool goes down the river now? Nothing worth speaking of. Possibly there are some bales of skins, and some casks of tallow carried occasionally; but wool is the main item.
1390. With regard to the using of the water for irrigation, I see that you entirely abandon all idea of
1391. You take the view that Colonel Home takes, that we should begin modestly, with experimental areas? Colonel Home's opinion seems to be that we should not attempt irrigation at all, because we cannot attempt it upon a large scale. My idea is, that we can do what Southern California has done—take gigantic and comprehensive schemes? I never entertained such schemes.
1392. We have it in evidence by some witnesses that if we had any quantity of water to be used, there is only a portion of the land on the banks of the Darling really suitable for irrigation;—do you agree with that? Yes; but the portion which is suitable is sufficiently large to take all the water that we could spare, and to provide for all the people who are likely to settle there for many years to come.
1393. We are told that the land now subject to inundation would not be suitable for cultivation, because the floods would kill any growing crops; and because where there is such land there is generally clay underneath? Well, there are certain crops which would grow on such land—an annual crop, such as wheat for instance. There is no reason why you should not grow wheat on such land, seeing that a great deal of that land is flooded only once in twenty-five years. I have seen lucerne grown upon land subject to flood—land flooded only once every five or six years.
1394. But the crop would be destroyed by a flood, so that you would have to re-sow? Well, the loss would be very small in such a case.
1395. We are told that the land suitable for irrigation is the land above the flooded area, and that all the way down the river there are large patches of such land. There is said to be one very suitable patch north of Bourke, a patch containing 8,000 acres, and seemingly marked out by nature for an irrigation farm? In my opinion the spot that you speak of is an ideal one for the purpose.
1396. Then have we not, as it is, an opportunity to establish an irrigation colony? We have the opportunity, subject to one or two drawbacks.
1397. What are they? One is that the river being only partially locked you have no guarantee that the freshes to which I have referred will come right down.
1398. Supposing we were to make the Bourke weir watertight, the water above it would be of full value for irrigation though not of much service for navigation? Even in that case a fresh coming in at, say, Walgett, might be exhausted before it got half way down to Brewarrina, so that it would never reach the locked portion of the river at all. With one lock you cannot have the advantages which you would have if the river were locked throughout.
1399. I understood you to say that there is always enough water coming down the river to keep the locks supplied;—if that is so, there would be enough water to keep that one stretch of river supplied;—there would be enough in that 8 miles for the irrigation of the 8,000-acre block to which I have referred? I think you missed the force of my previous remarks when I said that if the river were locked over a large portion of its course you would receive contributions right down it which you do not get now.
1400. But, apart from that, there would be water enough in this artificial lake that I speak of to allow of the irrigation of the 8,000-acre block at North Bourke? Yes.
1401. That being so, all we have to do to establish an experimental colony is to make the Bourke lock watertight, and to put up adequate pumping appliances. Therefore, without any new locks at all, we could carry out these experiments at Bourke? Yes.
1402. I have gathered from your evidence that the produce of 8,000 acres would be just as much as Bourke could manage to consume? Bourke would probably not attempt to consume so much produce as that.
1403. Then a difficulty would arise in there not being an immediate market for the produce? I do not think

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think there would be any difficulty of that kind. When people can grow stuff in America, as they are doing, and can pay train freights, shipping freights to England, the breaking of bulk in England, and the charge of reshipping to Sydney, I do not see why similar produce grown much nearer the point of consumption should not find a market.

1404. American conditions are very different from our own; we have it in evidence that it now pays better to import greenstuff and produce of that kind from Dubbo than to grow it on an irrigation farm at Bourke;—do you agree with that statement? I have not the slightest faith in it.

1405. Do you think that a farmer could sell produce grown 3 miles out of Bourke more cheaply than the price at which produce brought from Dubbo could be sold? It is not fair to limit me to a single commodity.

1406. Well, take milk or garden stuff? I will take that popular commodity for which there is the biggest market at Bourke—lucerne, chaff, and other produce. The proof that you can produce it more cheaply at Bourke than the price at which you can import it lies in the fact that those who have once started to grow produce have never gone back upon the attempt, but have continued their operations.

1407. It is stated in previous evidence that the squatters have tried to grow hay, but that finding that it did not pay they have abandoned it? I have heard men repeat that statement, but I know of no station out there where, having once attempted to grow produce, they have abandoned the attempt, and have not, on the contrary, extended their operations. They always begin with a number of blunders, because they are not agriculturists, and, although they continue, they will tell you that it does not pay. The squatter was always prejudiced against the plough, and I am inclined to think that it is their prejudice that is talking.

1408. If we started our experiment in agriculture at Bourke, it is not to be supposed that the whole 8,000 acres would be snapped up at once? No; because we have not a sufficiently large population familiar with irrigation to draw upon.

1409. A few men would begin, others would follow, and in course of time, if there was a market for the produce, the whole of the land would be taken up? Yes.

1410. I suppose it would not be worth while to multiply these farms until the first farm established itself as a success? I should feel more inclined to start three or four farms on a small scale than one large one. At Bourke our great difficulty is to get people who are familiar with the particular kind of industry required. You might have a few people of the class near Wilcannia who would be ready to take up the work there, but who would not go up to Bourke to make a start.

1411. At Bourke you have a railway terminus, you have land within 3 or 4 miles of the township, you have a large number of teamsters (the very class of men likely to go on to the land)—everything in favour of the success of such a scheme; but if you scatter your resources you are more likely to have three blunders than one success? I have no objection to the carrying out of the North Bourke scheme—on the contrary, I would advocate it; but if I owned all that western country and wished to develop it, I should establish three or four irrigation farms at convenient spots, rather than one big farm. At the same time, I agree that if we could concentrate the people one large colony would be more economical and more profitable than three small colonies.

1412. Your opinion is that the Government, being the owner of this land, should set up the necessary pumping machinery, and charge for the water used? Yes; or an arrangement might be made similar to that which obtains in connection with the supply of water for country towns. The irrigation settlement might be made a sort of municipality and allowed to provide itself with water, the necessary machinery being erected by the Government, the municipality paying the Government an annual charge for interest and refund.

1413. You would not attach the irrigation settlement to the Bourke municipality? No; I would make it a separate municipal area.

1414. That could not be done until a large portion of the land was occupied? No.

1415. And the Government would have to take all the risks of the experiment? Yes; as many landholders do in private life.

1416. As pumping on a large scale is cheaper than on a small scale, it would be necessary to put up a pump sufficiently large to supply the whole area with water? I do not think it would be necessary to at once put up a pump sufficiently large to irrigate the whole area. I understand from engineers that what could be done, and would probably be done by private people acting in the same way, would be to provide boiler power sufficient for the working of double pumps, but to put up only one pump at first. Under such an arrangement the overcharge would not be so heavy as if what you suggest were carried out.

1417. You would arrange for two smaller pumps? Yes.

1418. Probably that arrangement would have advantages in case of accident? Yes.

1419. Can you say whether for the distribution of the water it would be cheaper in the long run, remembering especially the waste which would occur from seepage, to provide pipes or to make ditches? That question would be determined only by a closer examination of the land than I have made, and by a calculation of the comparative costs.

1420. Have you not in your reading come across any American experience? Yes; but many of their larger pipes are made of wood, on the same principle as casks are made. They have a great quantity of cheap soft wood at their disposal there; but as we have not such wood, I do not know that we can take their experience.

1421. But we could make three-sided wooden flumes? Not so cheaply as they can. Such flumes are not very lasting; but as the material for them can be obtained so cheaply in America, it pays the people there to use them. I should be inclined to think—though the question is one which must be determined after a close attention to every detail—that for the main distributing channel iron pipes would possibly be the best things we could use.

1422. If the three farms you speak of produced more than the district wants, could a market be found for the overplus by sending it down the river? The district is an ever-widening one for the consumption of locally-grown produce. As an instance of what the market there is, I may say that one year I obtained particulars from the Railway Commissioners as to the value of farm produce taken into Bourke by rail, and which could have been produced locally, and I found that it amounted to £70,000 for the twelve months. That consumption takes a good deal of catching.

1423. Then you do not distress yourself about the overplus? Not in the slightest, any more than I would about the disposal of the wool grown there.

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1424. If an outside market had to be looked for, would not the people at Renmark and lower down the Murray have easier access to that market? To which market.
1425. To the markets of the world? Well, if the river were made permanently navigable they would all have water carriage alike.
1426. But lower down the river their water carriage would be less? On the other hand, the land near Bourke would be cheaper. People taking up land there would not have to pay the Government £20 an acre for it.
1427. But there would be no advantage in being at Bourke rather than lower down the Murray if you wanted to supply the markets of the world? No advantage, except that you would have cheaper land.
1428. You say that homestead leasing has been an absolute failure in the Bourke district? Yes, west of the Culgoa.
1429. Why? It would take a long time to answer that question. The conditions out there do not lend themselves to the profitable occupation of the land under the restrictions created by law to govern that class of settlement.
1430. That is to say, there can be no intermediate holding between that of the squatter and that of the irrigation farmer;—the land must either be under pastoral occupation or under intense cultivation? It must either be under pastoral occupation upon a comparatively large scale or it must be held upon a small scale for agricultural pursuits with intense cultivation.
1431. At the present time there is no room for an intermediate holding? I see no possibility of any intermediate holding.
1432. If a man holds only 10,000 acres, will he not, as a rule, carry more sheep than a squatter having a large holding would carry on the same area? In certain districts, such as Brewarrina, he would; but taking all the homestead leases west of the Culgoa, I doubt if to-day they are carrying more sheep than they did when the squatters had the land. Some of them do, but others are falling back.
1433. Have the small settlers kept up the breed of sheep and the quality of the wool as well as the large squatters do? I am certain that the return of wool has not been increased by them.
1434. Do they send to market a more mongrel kind of wool? They raise inferior sheep and inferior wool. If you take the homestead leases which are capable of carrying 2,500 sheep and producing not the best class of wool, you will find that their returns are not sufficient for the capital invested.
1435. Wool-growing is not a business for a small man? Not out there. The capital required is out of all proportion to the return you can get from a small block. Besides, very few of the homestead lessees had sufficient capital when they went on to their land.
1436. If irrigation is of more importance on the Darling than is navigation, and if we must proceed gradually in this matter, our wisest course would be, instead of locking the whole river, to make use of the one lock that we have? Looking at the matter entirely from an irrigation standpoint, I would answer "Yes."
1437. If irrigation is to override navigation, that is what we should do? Well; I do not like to state my opinion in that way. A matter that has not been mentioned is the value of conserving a large body of water in the river quite apart from its use for irrigation purposes.
1438. It has been suggested that it might be possible to raise all the weirs another foot, and thus store up a foot of water more than is required for the purposes of navigation, in order that that spare foot may be available for purposes of irrigation;—do you think that scheme a feasible one? There is a great deal to recommend it, though I cannot speak of its possibility from an engineering point of view. Every foot that you can add to your weirs, having due regard to cost, adds immensely to the value of the work from an irrigation standpoint.
1439. If, while we are about it, it will not cost very much more to raise the weirs another foot, and we should thus have a foot to spare for the purposes of irrigation, do you not think that that would reconcile the conflicting interests? Very much indeed. I consider that if the river-level were raised 6 feet, that would leave a margin for irrigation; but, with another foot, you have a still bigger margin.
1440. If the present proposal is considered by the navigationists as providing only as much water as they want, so that they cannot allow any interloper to take away any considerable quantity, can we reconcile their claim with the claim of the irrigationists by adding another foot to the weirs? That would go a long way to get over the difficulty that you speak of, if it exists.
1441. I am assuming that it does exist;—we have the evidence of Mr. Darley that in a year like this there is no water to spare? Well, that opinion is open to a very serious objection. Mr. Darley stated, in one portion of his evidence, that the Bourke weir had not held back any water. Although he was head of the Department, he appeared not to know that upon one occasion his officers received instructions to let the weir fall flat, in order that the water it was impounding might go through.
1442. You stated in one portion of your evidence that the water problem in connection with the western station properties, had now been practically solved;—has the experience of the last few years of drought shaken your opinion on that point? There is no such thing as a water problem there now.
1443. Do you say that no station out there has been abandoned for want of water? Yes. When I first went on to the Darling there were stretches of country there in which people said that water could not be impounded. Some of it was loose, ashy country, and in other places it was impossible to make tanks of any depth. In saying that the water problem had been solved, I did not mean that there is no want of water there now. What I meant is that they now know how to conserve the water there under any set of conditions, and that it is only a matter of enterprise and capital to fill up the few blank spaces for the supplying of water to which provision has not been made.
1444. There is not a station west of the Darling upon which, with adequate capital, sufficient water could not be provided to see a squatter through any drought? That is so. Further than that, they have carried themselves, so far as water is concerned, through the most trying times the district has ever experienced.
1445. So far as the supply of water is concerned, the men in the back blocks are now as well off as many of the men on the frontages? In some cases they are better off. The river, when it is low, is sometimes a death-trap to sheep.
1446. I have heard squatters say that there is often not a blade of grass for 6 miles back from the river banks, and that very often a two days' journey has to be made in order to water stock at the river; but that on the back stations the water is better distributed? Yes. When the river is low, the approach to the

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the water is often very boggy, and it is difficult for the sheep to get out. But, where stock is watered by means of artesian wells, places can be prepared to give a safe approach. A mileage fee might be charged to the account of station owners, because of the advantage which a permanent river would give them in fencing-off their property. At the present time every station having a river frontage has now and again to incur a heavy expense in putting up brush fences to keep the sheep out of boggy places. I am certain that if the squatters there were asked whether they should be made to pay to the Government the cost of these fences, or pay for the improvement given them by a permanent river, they would choose the latter.

1447. But, notwithstanding the advantage you mention, there would still be an absence of grass on the country within a few miles of the river? That is so.

1448. If the water problem has been solved in the back country, there still remains the food problem;—in England the farmers have to provide winter food for their animals; but here the problem is how to provide summer food; or, at any rate, how to provide food during very dry weather;—what has hindered the squatters from having made more headway in the solution of that problem? There are two principal difficulties in the way of its solution. The first of these is, that squatters have taken a prejudice against agriculture. Speaking of them as a class, they regard cultivation with the plough as somewhat beneath them. I remember that, when Mr. Mack started to cultivate at a place near Dubbo, his neighbours half seriously and half rebukingly would say to him, "So you are a cockey now!" However, he is one of the few men who have made wheat-growing pay, and he is doing handsomely out of it.

1449. Supposing that prejudice to exist, why could not men who were in a smaller way grow hay? There is a prejudice against cultivation on the part of the squatter; he does not believe in it. The smaller men, on the other hand, have not sufficient capital to cultivate much. The operations of the large graziers are so extensive that they are almost appalled at the magnitude of the task of providing hay for their sheep.

1450. Would it not pay the squatters to lease land to men who would grow hay? In isolated cases men are doing well by agriculture out there; but in most cases where the men have faith in it they have not sufficient capital.

1451. Cannot natural hay be easily procured in that district? Yes; but you do not know what year you can get it.

1452. But when you could get it, you might store up sufficient hay to carry the stud sheep at least through a couple of years of drought? Well, necessity is forcing them to do that.

1453. The solution of the food problem is proceeding more slowly than the solution of the water problem? The water problem was the first to present itself. No class of men proceeds to solve a problem until it bumps up against it in an uncomfortable fashion. At first there was back from the rivers a large stretch of country which provided feed in a good season, although there was no water on it. This feed the squatters could then use as a sort of reserve, but when the whole of the country was stocked, the reserve was destroyed. Now the difficulty of preserving sufficient feed presents itself to men who are practically bankrupt.

1454. Supposing a smaller class of settlers, leaving the squatters to their glorious, patriarchic life, took up the work of growing hay, would the agricultural products resulting from the employment of irrigation on the banks of the Darling be sent out back? Irrigation settlers there would devote a large part of their land to the growing of fodder to be consumed in the district.

1455. You think that that would be one of the most profitable things they could do? I do not say that it would be the most profitable, but that industry would be one of the quickest to give a return.

1456. If there were a succession of good seasons, the growers would have to keep their produce on hand for two or three years? That is what they do at Orange and other places now. There they have to abide by the rises and fallings of the value of farm produce, according as the seasons are good or bad.

1457. Do you know men who have kept hay by them for two or three years? Yes, and all the time they have been keeping it, they have been pointing to it as of no use. Then comes the drought, and they would not sell their hay for £10 a ton.

1458. You think there is a future for irrigation on the Darling simply for the growing of fodder, if for nothing else? Yes; of course I am not saying that the growing of fodder is the best purpose to which you could devote an irrigation settlement; but it seems to me that the possibility of growing fodder under irrigation is one of the advantages of irrigation which will force itself to the front most readily.

1459. But I suppose no farmer would concentrate all his energies on one crop; a farmer would probably grow a little fruit, a few vegetables, and a little hay? Yes; out there hay is a winter crop; but it occupies the ground for a shorter period than it would in other districts, so that the farmer has ample opportunity to get a second crop from the land if it is necessary for him to do so.

1460. Is it principally wheaten hay that is grown? Yes.

1461. How long a period is there between the time of sowing and the time of cutting? I have known a crop to be put in late in June, and to be taken off at a time that would be considered early for an ordinary farming district.

1462. In what month would they cut it? There you can cut hay in September, if you get a warm, dry summer.

1463. Could a farmer do anything with his ground between that time and the time for the next sowing for hay crop? He could immediately plough it up and put in corn.

1464. And could he get the corn crop off again before he had to put in his hay crop? Yes; but most farmers would let the land lie fallow. We are not so tied up for land there as to make it necessary to put in two crops.

1465. You think that there is a large market for fodder in the Darling district? Yes.

1466. And that it may be that the solution of the food problem is the growing of fodder for the squatters by intermediate men? I do not say that that is the solution of the problem. A great deal can be done in that way; but, if I were a squatter, I should try to grow my own hay, as many people are doing now, though in a timid way.

1467. The question would be: how far back from the river could they afford to carry the produce? In a time like the present the squatters there have been paying freight for hay from farming districts, such as Orange, and then carting the produce 120 or 150 miles out back.

1468. It has been better to do that than to lose their stock? It was absolutely necessary for them to do that for their working stock, unless they were prepared to abandon their station.

1469. But you think it would have paid them better to have grown hay on their own runs? On Sir Samuel Wilson's run they have been growing it upon rather a large scale—200 acres is rather a large patch there—but at the particular time when they wanted it the crop failed. That land is not irrigated.

1470. I gather from your evidence that all idea of irrigation by gravitation on the Darling is out of the question? Except in small cases that need not be referred to. There may be one or two places where a man could grow such a crop as hay by irrigating from the river by gravitation, supposing the river were locked; but the area is so small that it need not be taken into consideration.

1471. But water coming from an artesian bore could not be used for irrigation by means of gravitation unless the bore were placed upon a slight eminence? You could flume the water on to an eminence, and distribute it from there by gravitation.

1472. Up to the present time the artesian bores have been put down without any idea of distributing the water by gravitation? The first artesian bores were put down in the lowest places that could be found, a mistake easily to be understood. Now, however, they put them on the highest places they can find.

1473. Of course, if we want to irrigate by gravitation, we must irrigate from an eminence? Yes. In using the water of the Darling you would irrigate by gravitation in the same sense as you irrigate by gravitation from a bore.

1474. If you pumped it into a tank first? Yes. You let the bores throw the water into tanks.

1475. I suppose the small pumps in use on the Darling discharge the water they raise into tanks? Yes, all of them. They never deliver directly into a channel.

1476. You still think that river irrigation will always beat artesian irrigation? Unquestionably. Our bores are too far out and too scattered to be of much use for irrigation. The water that comes from many of them is not suitable for irrigation. Besides, you could not place a decent-sized settlement near any one of them.

1477. But is it not an advantage that they should be scattered, because in this way they cover a large district, and thus might save carriage? That would be an advantage if you only intended to grow fodder for isolated settlers.

1478. Or garden stuff, or soft fruits;—what would you do with the produce raised? The bores, on the Wanaaring Road, for instance, are, some of them, 30 or 40 miles from the nearest house.

1479. The teamsters would consume a certain amount of produce? In a small way they would be consumers, but I do not think anyone would be tempted to cater only for their requirements.

1480. Coming back to the project immediately before us, do you think it would be wiser to carry out the whole scheme, or simply to feel our way down the river? A great point would be gained in the direction of economy by carrying out the whole work, because when the river was low you could take advantage of a favourable opportunity to push on with it.

1481. But we are making an experiment? It might be necessary to experiment with one lock and weir, but, having done that, and having determined that it was or was not suitable, I do not see that there would be any necessity to feel the way.

1482. The lock and weir at Bourke have not proved anything? To my mind they have.

1483. The weir has not held back the water continuously? I cannot accept that statement. The water that has gone through the weir would, in my opinion, have got away anyhow, either over the top of the weir or through the lock. The fact that there is no water there now is not the fault of the weir. When they first pulled the weir into position the water was low, and the erection of the weir caused such a stoppage below Bourke that many of the holders of the frontages there wrote to me, as I was at the time Member for the district, and pointed out to me that the proper time for pulling the weir into position was when a fresh was coming down. I represented the matter to the Minister, and he ordered the weir to be thrown down again.

1484. Would not the difficulties of the frontage holders lower down have ceased directly the water rose level with the top of the weir? Yes; but as the river was then flowing very slowly, the stoppage would have meant a great deal to them had it continued. For instance, it would have created such a large area of boggy ground that there would have been heavy losses of stock.

1485. Has there not been a fresh down since? Several; but on the last occasion, when they had the weir fixed, and it was holding water, the people of Wilcannia were in such straits that they wired down to Sydney, asking that the weir might be dropped to allow of a steamer going down on the flood. Their request was granted and a steamer was thus enabled to carry provisions to Wilcannia. Mr. Darley, in giving evidence, has ignored what has been done by his Department.

1486. But a weir that has to be pulled down first for one settler and then for another cannot be of very much use? Had the weir been a fixed one, the Minister could not have ordered it to be pulled down, but he would have ordered the lock gates to be opened.

1487. You do not see the wisdom of carrying out this project gradually? I do not see that anything would be gained by doing that. If you are convinced that there is an advantage to be gained from having the river locked, and that the type of weirs designed is suitable, I cannot see why the work should be carried out piecemeal. I can, however, see a great disadvantage likely to arise if you carry it out piecemeal, because of the long series of stoppages that would be occasioned by freshes during good seasons.

1488. Would not those stoppages occur in any case? Once you had a suitable season you might push on with the whole of the weirs.

1489. We might begin all the weirs when the river was low and a rise might put us into difficulties in connection with every one of them? Yes, but when the fresh had gone down again you could get on with the work. If we put the weirs up separately that experience might be constantly repeated.

1490. *Mr. Trickett.*] I suppose we are to take it that as an object lesson the weir below Bourke has really been of no use at all? I think it has been of very great use indeed. It has shown the difference between the river locked and the river not locked.

1491. The evidence of Mr. Darley is that water runs away under the weir and through the interstices? It is an astonishing fact that the gentleman in charge of this Department should have made the statement that for three months a rowing boat could hardly approach the weir, without explaining why that happened. Taken in conjunction with the fact that Mr. Darley has all along objected to the type of weir constructed, his statement seems more than significant.

1492. Mr. Darley said that these shutter weirs were very suitable for swift-running rivers where the supply of water was ample and a little leakage did not matter? I do not object to Mr. Darley's opinion; but

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but Mr. Darley must have been in possession of the information which I have given you as to the throwing down of the weir, and yet he appears not to have told the Committee of the facts which I have related. Of course it goes without saying that, other things being equal, a weir that holds back all the water is better than a weir which allows a certain quantity of water to go free.

1493. Do you think it would be dangerous to erect fixed weirs in the Darling? I think there would be a danger. The soil there is extremely fine silt, and is so easily disturbed by the action of water that I fancy a permanent weir would offer a temptation to the river to cut another channel—I do not mean to say that this raises an insurmountable difficulty; but a permanent weir would have to be watched, and might entail expenditure which is not provided for in the estimate for this work.

1494. It would entail expense in the construction of very long side walls leading to the weir? Not more than I imagine a movable weir would cost in that way. The effect which an obstruction to the water has upon the river channel is seen in two ways. Mr. Darley referred to one. He stated that wherever there was a rocky bar across the river bed, the channel was wider there than elsewhere. The other effect is that above these rocky bars we find that the river has either cut itself another channel, or is now doing so. I do not know that these channels are altogether a disadvantage, because they serve to distribute the water more extensively. At the same time they would have to be watched.

1495. You do not think that there is any fear of the river silting up in front of the weirs? None at all on the top side. Wherever there are these rocky bars, to which I have referred, and they are natural weirs, there is generally a hole on the top side. At Brewarrina there is a hole 19 or 20 feet deep above the bar there. That hole has been made, I think, by the water hitting the bar with some force, and stirring up the soil, and then carrying it away in suspension. Wherever there are these rocky bars, there is a hole upon the top side of them.

1496. When you say that you favour the construction of movable weirs, I suppose you mean weirs of such a kind as would hold back the water absolutely if, in times of drought, that were required? No weirs, whether they be movable or fixed, absolutely hold back all the water. The weir I favour is a weir which would hold back more water than the Bourke weir has been allowed to hold back. I have had an opportunity of looking into the matter more closely since I spoke before. Another reason why I advocated the construction of movable rather than of fixed weirs was because of the saving in cost they allowed. I see, however, that Mr. Darley has now so materially reduced his estimate for fixed weirs that that objection has gone.

1497. Mr. Darley advocates the construction of a fixed weir in preference to a movable weir, because of the great saving in expense and in maintenance? Yes. Originally his estimate for fixed weirs was very much higher than it is to-day, and it then seemed to me that movable weirs being a cheaper construction they might be put up when it was not thought advisable to expend the larger sum which Mr. Darley's original proposition would have entailed.

1498. The cost of managing and maintaining a movable weir is very great indeed. There must be permanent employees engaged in connection with it? I do not think that is necessary. Freshes do not occur simultaneously at all the weirs, and I should imagine that a maintenance steamer, such as you would have whether the weirs were movable or fixed, might travel down the river and pull down, or pull up the various movable weirs as circumstances required. A steamer could travel faster than a fresh could travel. While on the question of expense, I might draw your attention to the fact that £600 has been put down as the cost of putting up 300 miles of telephone wire; but as the telegraph now runs all along the river, I should think it would not cost another £20 a mile to fix the telephone wire on to the same poles. What is probably intended is to put up a separate set of poles for the telephone wire.

1499. Does the Government undertake irrigation in America? No, but the Government there does what public opinion will not allow our Government to do, it grants facilities for carrying out work of this kind by private enterprise. Most of the American irrigation schemes are carried out by some private corporation or syndicate which has obtained a concession of water-rights, and has purchased or acquired in some other way the necessary land.

1500. But irrigation has not been very successful in this Colony? Whenever we have attempted anything of that kind objections have been raised in Parliament to the granting of any concessions.

1501. Is it not strange that in the western districts where, in favourable seasons, the pasturage grows so rapidly and to such a height that it can be easily cut, the squatters and the homestead lessees have not used it for hay, or by putting it in silos, to tide over bad seasons? That is only another instance which shows how communities will go along a beaten track for a long while, until it is demonstrated to them that something else will be better. Then they say, "Why did we not think of that before?"

1502. Do you think it is practicable upon a large holding to go in for the growing of fodder to such an extent as to provide for the stock in dry seasons? I think a great deal can be done in that way. I think that if they were to spend upon fodder the money that they now spend in cutting down scrub, or that they lose by the death of stock in dry seasons, in preserving and laying up fodder for stock, they would find the investment a better one.

1503. You look upon this scheme of irrigation as one to provide produce for local consumption;—does it seem feasible to you that agriculturists should go to this dry district and incur the expense of pumping water and irrigating crops or fruit trees there when they can get land which is nearer to Sydney, and in a much more favourable climate? I do not know any district near Sydney where the climate for fruit-growing is more favourable than the Darling climate. When you compare one district with another, you must take all the circumstances into consideration, the cost of pumping would be far more than counter-balanced by the high prices paid for land nearer Sydney.

1504. But what about the freight to market? The freight for a great deal of what they would produce is in their favour. An Orange farmer selling hay at Bourke for £4 a ton would lose £2 of that in freight; whereas a man growing produce at Bourke would get the whole price, and, under irrigation, would obtain much larger crops than could be obtained elsewhere without irrigation.

1505. Do you think that agriculturists would go up there? I do not say that the wheat-growers at Narromine would sell their farms and go up there. The great difficulty is to get into existence a population with faith in the profits of small husbandry combined with irrigation.

1506. I suppose the irrigation colonies you have spoken of would be upon a very limited scale to begin with? They would not have to be on too small a scale; they would have to be sufficiently large to allow of economy in the distribution of the water.



1507. Mr. McKinney, when he was here the other day, expressed great disappointment because the community had not sufficiently availed themselves of the advantages given by the Water Rights Act? I share that disappointment; but the people out west have trodden in the beaten track a very long time, and they are not very receptive of new ideas. It is the same in other countries when you make a new departure. The managing partner of Dunlop Station told me the other day that some sheep he had—I think 20,000—had cost him 5s. a head to maintain, because of the drought. They were a particularly good class of ewes, and it would have taken many years to breed up the flock again. From that it will be seen that the expense of keeping stock alive in a dry time is very great indeed. I received a letter to-day from Mr. J. Mackay, in which he told me that he was sending teams along a road to distribute food so as to enable him to travel some good ewes from one station to another. The pastoralists there face a very heavy expenditure when they are pressed by the drought; but they will not pay similarly in providing against drought.

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1508. Time alone will bring about the making of proper provision? Time and a few good object lessons.

1509. I suppose you admit that to irrigate large grazing areas is almost impracticable? Yes; I do not think that that is ever likely to be practicable—at any rate out on the Darling.

1510. You have instanced India as a place where irrigation is extensively carried on, and where crops are largely grown by irrigation;—do you think that their experience can guide us, seeing what an enormous population they have there to consume the produce which they grow? I did not instance India as an illustration of what can be done by irrigation; but merely to show how small a proportion of any country can be irrigated. I did that with a view to disposing of the idea that large irrigation schemes were necessary, and, further, to show that the expense which irrigators there have to face. India holds out this encouragement to us, that the essential condition of success there is close population; and, within the limits of an irrigation colony, we can get close population here.

1511. Colonel Home, in his report, seems to indicate that a great deal of the land near the river is black-soil country, and unfit for irrigation;—do you agree with him there? A large part of that land is not the country one need select or bother about, seeing that the land which is suitable is more than sufficient.

1512. You think that there is an ample area of red soil country there? Yes, more than will satisfy the requirements of this generation. The black soil country must not be condemned entirely; there are certain crops which will grow upon it, though it is not the soil which you would choose where constant cultivation is required. For such a crop as wheat, which does not require cultivation after sowing, it would do very well. The black soil would produce better crops of wheat, and for a longer period, than the red soil.

1513. *Mr. Dick.*] You can irrigate the black soil? Yes, where you are growing a crop like wheat. But where you are growing fruit-trees, and it is necessary after each irrigation to run the plough down between the trees, black soil is too heavy; but there is not that difficulty with red soil. I have grown remarkably heavy wheat crops upon black soil, and without any difficulty at all.

1514. *Mr. Trickett.*] You stated that the greater the production the greater the demand for the produce; but if the prices are not remunerative what becomes of the producer? A man would not continue to produce if it did not pay him. What I meant is, that whereas to-day a ton of hay might cost £5, if it could be purchased at £2, as it can be at Orange, there would be a much larger consumption of hay.

1515. The agricultural production of that part of the country must be chiefly for local consumption? Yes; the fodder raised would be for local consumption.

1516. What things do you think could be grown there for export? There are very many high-class products which might be grown there. Certain kinds of fruits might be grown there, and profitably marketed throughout the Colony. There are many fruits, such as those which they are now shipping from Mildura to England in pulp, which might be sent from the Darling in the same way.

1517. The difficulty at Mildura has been caused, you say, by the high prices which have had to be paid for the land there? Yes; and because the scheme was very badly designed.

1518. And because of the high charge for water? Yes.

1519. The people there were over-weighted? Yes. The people went there at a boom time, and many of them purchased land at fabulous prices. They bought more than they could ever pay for, and when the instalments became due, they were in difficulties. I saw some evidence placed before the Committee as to the water lift at Mildura being 16 or 17 feet, but in one place there is a lift of 80 feet.

1520. When you gave evidence before, you said that you attached considerable importance to the Pera settlement as an object lesson;—what has your observation of it taught you? It has entirely confirmed my opinion both as to the possibility and the profitableness of growing fruit out there. I do not know if the Committee noticed the remarks which Mr. Carruthers made about it as reported in this morning's newspapers. The trouble which has occurred at Pera, and which has, to a certain extent, threatened the very existence of the settlement, has been occasioned by the failure of the water supply. When I gave evidence before, I referred to that as one of the dangers incidental to irrigation by means of artesian bores.

1521. But you say that the production of the soil has shown the place to be a success? Everything has confirmed the opinion I held of the place. A great difficulty in connection with it is to get the right type of men. One of the men who went there had been a grocer, and he had no agricultural knowledge at all; another man had been a Bank clerk, who left the Bank to take up a block at Pera. You cannot expect men to be successful in business of which they have no previous knowledge.

1522. You said that prejudice prevented the squatter from growing fodder for his sheep, but prejudice does not generally stand in the way of self-interest; if it had been to the interest of the squatters to go in for siloing or haymaking, would they not have done so? That would seem natural were it not that we have so much evidence to the contrary everywhere through life. A gentleman whom I mentioned just now—Mr. Wilson—has always protested that cultivation would not pay, but he recently got a manager—Mr. Robertson—who believes in cultivation, and he is going in for it, notwithstanding the mild protest of the owner of the station. Mr. Robertson is a younger man, who has seen other districts, and he has the largest single patch of cultivation out in the district now.

1523. Do you regard the proposed scheme as likely to be directly remunerative? By that you mean will it furnish a return direct to the Treasury.

1524. Yes? I understand that it would require a return of £22,000 a year to make the scheme pay, and I think it is very probable that it will not for a number of years return that amount. But we have constructed

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- constructed many roads and public works which do not pay, incurring expense in connection with them in order to develop and assist the districts in which they are situated. For instance, a very large amount has been spent to enable the coal of Newcastle to reach the markets of the world. I view the proposed expenditure as similar in its object to the expenditure on the public works to which I refer.
1525. I suppose you consider that, where a large outlay of public money is made in a thinly-populated district, to get a return must be the work of years? It takes time; but I can see that work of this kind must tend to increase settlement. I cannot, however, see that a railway would increase settlement at all.
1526. You look upon the proposed work more as a work to develop the district in the future? As a work of immediate development. Apart from the indirect benefits which would accrue from it, the direct benefits might have to be waited for for some time.
1527. Do you look upon the work as likely to be of special benefit to this Colony? If you regard the people of the western district as entitled to call themselves part of the Colony, I do.
1528. Will its construction not lead to the taking away of a great deal of trade from this Colony? If any trade is taken away, it must be to the benefit of the men out there; otherwise they would send it to Sydney. But if you regard them as part of the Colony, and they are benefited, the Colony must be benefited. The question is whether you are to consider the interests of Sydney before their interests. I am not advocating the construction of this work in the interests of Sydney.
1529. You advocate it in the interests of the district? Yes.
1530. You said something in your evidence about the rebates given by the Railway Commissioners in order to secure the traffic? I said that any trade lost to the railway would not mean a serious loss of revenue, because the traffic that might be lost is now carried at such low rates that the Commissioners have very little profit out of it.
1531. Owing to the competitive rates of the other colonies? Yes.
1532. *Mr. Shepherd.*] I think you said that there are very few people in the neighbourhood of the Darling who are familiar with irrigation? Very few.
1533. Have any of the experts who have visited the district attempted to give lectures upon irrigation or to instruct people in any way regarding it? I do not think we have had any irrigation experts up there. One or two gentlemen connected with the Department have been up there, but they have been men like Mr. McKinney—engineers rather than irrigation experts.
1534. I understand that Mr. McKinney has had very great experience in other parts of the world? Yes; but you must distinguish between men who, as engineers, have had experience in the work of carrying out irrigation schemes, and men who, as irrigationists, have used water for the purpose of improving their crops. Mr. McKinney, like Colonel Home, is an engineer.
1535. I should think that the application of the water to the land is a very simple matter? There is a great art in it.
1536. Chiefly in laying it on? Yes; and in judging as to the quantity to be taken and the time at which it should be applied. Close attention to details is required.
1537. I should think that any agriculturist ought to know when his soil would require watering? I admit that, but still there are a great many people in this country who, although they are engaged in farming pursuits, are not agriculturists.
1538. I should think that practical men could very easily be instructed in the manner of applying the water, once there was a supply at their disposal? I do not think there is any great difficulty in the matter, but in teaching people to become irrigationists you have to combat their desire to use the water extravagantly. They will always use a great deal more water than is necessary.
1539. And too much water is almost as bad as too little? By over-watering they do harm to their crops and to their land.
1540. Is the black soil you speak of a tenacious clay? Yes.
1541. Such soil is, of course, unsuitable for irrigation? Yes; but I have used it myself for such a crop as hay.
1542. Flooding the land? Yes.
1543. The more friable and open the soil, the better for irrigation;—I think you said that there had been some remarkable lucerne crops grown in the district;—you stated that you had known a paddock of lucerne to be cut eight times in one year? Yes.
1544. That would exceed the production of the Hunter district? Yes; but the greater heat in the western district makes the growth more rapid than it is on the Hunter. With us the crops will grow in the winter months, when, upon the Hunter, they would almost have ceased to grow. In summer, too, the growth with us is more rapid than it would be on the Hunter.
1545. Do you know at what depth water is to be found under the land upon which this lucerne is grown? No.
1546. Do you think that its roots got down to the water? Nothing would have grown there but for the water applied on the surface of the ground.
1547. The great secret in lucerne-growing is to cultivate where the roots of the plant can get down to water? Well, in this case the water was going down to the roots.
1548. I believe that some excellent results have been obtained by irrigation from the Pera bore? Yes.
1549. But irrigation has been carried on there only upon a small scale? I may say that I myself designed and plotted out that settlement. I submitted the proposal to the Minister with the idea that it might ultimately become a fruit-growing place, or a place for growing vegetables for the supply of Bourke. The blocks there only contain 20 acres each.
1550. I imagine that cereal crops would not pay upon the Darling, except for local consumption? I should not like to say that. I believe that with cheap water-carriage you could grow grain there by means of irrigation; but I do not think it would be attempted at first. People, at first, would naturally grow produce for which there was a market at their own doors.
1551. Have you any idea what the local consumption would amount to? The price of produce greatly determines the amount of the consumption there. At the present time fodder is extremely dear there, and the supply is limited; but as I have already mentioned, in one year £70,000 worth of produce went into the Bourke Railway Station for distribution from that centre.
1552. That fodder would be sold at a very high price? Yes, and during a very dry time.
1553. Are the mining industries in the neighbourhood of the Darling at all active now? The mines at and near Broken Hill, and at White Cliffs are active; but both those places are too far away from the river to be affected by it, except as a trade route.
- 1554.

1554. Would not the produce from White Cliffs come to the river? Yes, the trade from that centre would drain to the river.

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1555. You say that you have known the river to cease running only once in nineteen years;—do you mean to cease running all the way down to the junction with the Murray? No; I spoke only of that portion of the river with which I am familiar, and more particularly in regard to the river between Walgett and Bourke. I believe that below Bourke the river has stopped running once or twice for a limited period, or has become so small a trickle that you could step over it.

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1556. Some of these rivers often run near the head, and seem to disappear altogether lower down;—I know that that is the case with the Lachlan very often? Yes.

1557. As a rule, I think the rainfall in the Darling district does not come at a period when it is likely to assist cereal crops very much? There is generally not very much rain at all. The first three months of the year show the best average rainfall, and each succeeding three months the rainfall becomes less. It is to be remembered, however, that our average rainfall is very much better than that of many places where irrigation is practised. Consequently we should not require to irrigate as much as they have to irrigate in those places.

1558. Where irrigation is carried out the less rainfall the better, because without rain you can regulate your supply of water better;—heavy rainfall coming after irrigation may do more harm than good? Yes.

1559. Do you think that sufficient water could be spared from the Darling to irrigate a considerable area of land? Yes.

1560. Irrigation has already been carried out there to some extent? One can hardly say "to some extent"; but sufficient has been done to show what is possible by means of it.

1561. Does there appear to be any disposition to increase the area under irrigation? All the efforts made in that direction out there have been extremely timid and half-hearted. People have very little faith in it, and know very little about it. The one or two people who have attempted to irrigate have made such serious mistakes that they have disheartened others.

1562. It is generally very hard to get people here to help themselves? When you will not allow other people to help them.

1563. *Mr. Dick.*] I gather from your evidence that you think that because of the want of men qualified to take up the work of irrigating, and for certain other reasons, we should go slow in this matter? Do you mean go slow in the matter of irrigation.

1564. Yes? Yes; but not go slow in the matter of locking the river.

1565. You look upon the locking of the river, then, mainly from the point of view of navigation? Its immediate effect would undoubtedly be to give facilities for navigation. The other advantages of the scheme would require time for development.

1566. You look upon the expenditure of £500,000 upon this work as justifiable in the interests of the Colony? Yes; if I had the money I should not hesitate to spend it.

1567. Presuming that it is necessary for the State to be recouped this expenditure, how can it be recouped? As I stated before, I regard this as one of those works from which the State need not look for a direct return. There are many works of the kind in this Colony which it is never expected will make a direct return.

1568. I do not regard the return as necessarily immediate? Well, such works as those on the northern rivers or at Port Kembla are not intended to give any direct return to the State.

1569. What about Port Kembla? It has been suggested that there will be a return in the shape of wharfage dues, but it has never been pretended that that return will be adequate to the expenditure. Expenditure upon roads comes within the same category. A water highway is the only road you can give the people out in the west.

1570. If we lock the Darling we set up a competitor with our own railway system? You mean to say that you may take some of the trade of the district from Sydney.

1571. We may take some trade from the railway which has been built to cater for that trade? What trade.

1572. The trade of the western district, of which Bourke is the centre? Supposing that that is so, are you, because you have constructed a railway to Bourke, going to refuse for all time to allow the people of the western district a cheaper and more natural means of carriage.

1573. The view I take is that to lock the river will be to bring it into competition with the railway? The railway is paying handsomely now. Last year the profits of the Bourke to Nevertire section were £30,000. But suppose there were a loss to the railway or to Sydney of £100,000, and the people out there made £150,000, which interest should stand first, looking at the matter from a national standpoint.

1574. Do you think it is quite fair that the majority of the taxpayers of the Colony should suffer a loss of £100,000 in order that the few people in the western district might gain £150,000? I think it is a monstrously unfair thing that the people out there should be directly taxed for the benefit of the people of Sydney.

1575. In what way would the people out there be taxed under present conditions to support the people of Sydney? If you force their trade to come here when they could send it more cheaply elsewhere you are taxing them unfairly.

1576. The people in that district were very anxious to get the railway? Yes.

1577. Then is it not fair that they should pay for it? Yes; but they have also to help to support other lines, such as the Hay line, which has been built merely to bring traffic to Sydney.

1578. Do you think that if the river were locked the trade between Tilpa and Bourke, which now centres in Bourke, and is brought to Sydney, would continue to be dealt with in that way? I do not think that between Tilpa and Bourke much more traffic would be taken away from the railways than is taken from them now in good seasons. I think that the traffic that would be taken is traffic which is now carried, if not at a loss, not a profit, merely to bring that to Sydney.

1579. Is it not the competition of water carriage that compels the Commissioners to reduce their rates? You cannot get away from that competition.

1580. You want to make it greater? Naturally, so that the people there may get to market more cheaply.

1581. Is it not rather late to consider that? What about the people on the Lower Darling.

- Hon. E. D. Millen, M.L.C.  
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1582. I am referring to the traffic of the district of which Bourke is the centre? The proposed scheme will not affect the people near Bourke very much; it is the people on the Lower Darling who will be affected.
1583. Have you gone into details as to the cost of necessary mechanical appliances for the small irrigation colonies of which you have spoken;—can you give the Committee any idea as to what the cost of these would be? The only way in which I could give you that information is by telling you the cost per acre of supplying water.
1584. How can you arrive at that cost unless you know the cost of the necessary plant? Not being familiar with mechanical appliances, I have got engineers to work out the figures for me, giving them the quantity of water required per acre and the lifts. The estimates I have obtained from different engineers have not exceeded 25s. per acre, and some have been as low as 17s. 6d. per acre.
1585. What would be the size of the colonies for which such a charge would apply;—you must have had in your mind colonies of a certain area? I have always taken 3,500 acres as the minimum, and 5,000 acres as the probable maximum for an initial, experimental scheme.
1586. You think that 5,000 acres could be successfully irrigated at a maximum cost of 25s. per acre? Yes.
1587. How many individuals would that area support? It depends upon the purpose to which you put the ground. If you are going to grow hay only, that area would not support very many people; but if you grow higher-priced produce it might support a soul to the acre.
1588. That would depend upon their getting an immediate market for their high-priced products? What do you mean by an immediate market.
1589. Not a Sydney market, for instance? The people of Sydney are now buying their dried fruits, which could be sun-dried at Bourke, from America, and places on the Mediterranean, and the fruit that is brought from those places is no better than could be brought from Bourke.
1590. Is it not a fact that the area suitable for fruit-growing there is outside the flooded area? It is above the reach of flood-water, but it is within 100 yards of the banks of the river.
1591. Is there much good land close to the river so as to be at once irrigable and beyond the reach of floods? I know of several patches within a reasonable distance of the river. There is a particularly good piece of land at Redbank. That land is, perhaps, better than the land at North Bourke, but not quite so close to the town.
1592. What do you think the North Bourke land would be suitable for? Almost anything you could grow out in that district.
1593. Is it as good as the Pera bore land? Yes; it is better than that land. It is a little more friable and richer.
1594. I think you said that with irrigation people could grow heavier fodder crops out in that district than in any other part of the Colony;—could they get a crop of mangold wurzels of 80 tons to the acre? My brother got 80 bushels of corn to the acre, and it was planted anyhow. It received no proper cultivation, and was treated in a way that would shock a North Coast farmer.
1595. *Chairman.*] Can you inform the Committee whether, if the river level were raised 8 or 10 feet, the water would pass down the various anabranches unless some provision were made to stop it;—are the entrances to the anabranches higher than the bed of the river? Yes, in most cases.
1596. If the river level were raised to the height of 10 feet, would not the water make its way down these anabranches, unless precautions were taken to stop it? The anabranches proper run back into the river again.
1597. Yes; but a great many miles below where they leave the river? Not always. However, that would not greatly affect the supply of water. The most numerous depressions out there are the billabongs, and they do not come back to the river. One effect of blocking the river would be that, whereas these billabongs are filled now only once in two or three years, they would then always contain a permanent supply of water.
1598. The Acres Billabong is of considerable length, and so too is the Talyawalka;—would there not be a danger of the river leaving its present channel and using some of these anabranches? I think it would be a very fine thing if the locking of the Darling did cause these additional rivers to be made. An additional lock would conserve all the water that ran into an anabranch.
1599. Would you lock these places? Yes; if necessary.
1600. The estimate before us contains no provision for that work? Probably the levels are such that no such provision would be made at this stage. I should like to ask the Committee to take into consideration before it closes this inquiry the possibility of running a line from Menindie to Broken Hill, and the advantage such an irrigation settlement at Menindie would have in supplying Broken Hill. I am satisfied that an irrigation settlement at Menindie and a railway to Broken Hill would be self-supporting, and I think that a great deal of the traffic of Broken Hill would come to the Darling, some of which might be brought up to Bourke.
1601. I suppose the people out in the western district do not particularly want to trade with Sydney;—if they can get a market at Broken Hill or other places it will suit them just as well? An irrigation settlement at Menindie, even without a railway, would find its best market at Broken Hill.
1602. *Dr. Garran.*] Would the produce grown at Menindie stand the land-carriage to Broken Hill? Yes; the distance between the two places is only about 60 miles, and at Broken Hill there is a population of about 25,000 people. Broken Hill is situated in a very dry district, and the freights through from Adelaide, are comparatively high.
1603. Have you ever travelled from Menindie to Broken Hill? No. I know Broken Hill, and I have been within a few miles of Menindie, but I have never been from Menindie to Broken Hill.

TUESDAY, 13 JUNE, 1899.

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (VICE-CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
The Hon. ANDREW GARRAN, LL.D.

WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Robert R. P. Hickson, Under Secretary and Commissioner for Roads, Department of Public Works, sworn, and further examined:—

1604. *Vice-Chairman.*] Under section 12 of the Public Works Act, the Committee have to take into consideration in any inquiry of this kind whether the work is to be regarded as of a reproductive or revenue-producing character; and we have recalled you to ask you if it is the intention of your Department, as far as you know, to impose any tolls or other charges in respect of these locks and weirs on the river Darling? I am instructed by the Minister (Mr. Young) to say that this matter has not yet been considered by him, or submitted to the Cabinet.

R. R. P.  
Hickson.  
13 June, 1899.

1605. No determination has been come to? None.

1606. So that at present we shall have to regard it, then, as if no charges were to be imposed? Yes; no charges having been determined.

1607. Although nothing has been determined, could you tell the Committee whether the question has been gone into at all in your Department of what revenue could be obtained from a large service of this kind? It has not.

1608. Or what freight would be obtained, or what charges could be made for using the locks? No.

1609. That has not been gone into, so as to give the Minister an estimate? No.

1610. He has not called for any inquiry of that kind? No.

1611. *Dr. Garran.*] Have you formed any opinion as to what will be the best way of levying a toll—whether by a licensing system, or by a charge on the freight? I cannot say that I have.

1612. Do you know of any experience in other parts of the world as to the way in which these things are made to pay? As a rule it is a tonnage rate.

1613. Do you mean a rate on the tonnage of the steamer, or on the tonnage of the freight carried? On the tonnage of the steamer.

1614. Irrespective of what they carry? Yes. There are a great many ways in England in which the tolls are levied. They are sometimes per foot of water drawn by the barge, sometimes on the gross tonnage carried, and sometimes on the gross tonnage of the vessel carrying cargo; but as a rule, I think, it is the tonnage of the vessel carrying cargo which is charged on.

1615. What is the case on canals in England? I am speaking of canals now.

1616. Do you know what it is in America? No.

1617. Or in France? I could not say.

1618. You have not yourself given any consideration to the question? No.

1619. *Chairman.*] In France, in some cases, they are regarded as highways, and no charge is made? It may be so in France. I do not think there is any case of the kind in England, for the simple reason that they all belong to private companies, and they must get a revenue from them.

1620. *Dr. Garran.*] In France there are Government canals? Yes.

1621. They are not charged for? I could not say.

1622. *Vice-Chairman.*] You are not able to say whether there is a tendency towards granting the free use of these waterways? No; for the simple reason that the only ones I am at all conversant with are all English ones, and they all belong to private companies.

1623. *Mr. Shepherd.*] Have you any objection to say whether, in your opinion, a large amount should be spent for the benefit of the people in these localities without getting any return? I think there ought to be a return.

1624. You think that tolls would be quite justifiable under the circumstances? I think so; I do not see why they should not be.

WEDNESDAY, 14 JUNE, 1899.

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (VICE-CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
The Hon. ANDREW GARRAN, LL.D.

WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

James William Boulton, Superintendent of Public Watering Places and Artesian Boring, Department of Mines and Agriculture, sworn, and examined:—

1625. *Mr. Shepherd.*] You are thoroughly acquainted with all the bores in operation? Yes; there may be an odd one I have not seen.

J. W.  
Boulton.  
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1626. How many bores are there in operation? We have forty-eight flowing bores, sixteen pumping wells, eight failures, eleven bores for which contracts have been let, but which have not yet been commenced, and

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Boulton.  
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and nine bores for which contracts have been let, and which are in progress. That gives a total of ninety-two for which provision has been made. The progress has been considerable since the last occasion I appeared before the Committee.

1627. Is any cultivation carried on at any of the bores? A small amount is done at nearly every one of them. The largest cultivation we have is at Pera, then at the Native Dog, and then at Enngonia, Belalie, and Barrington.

1628. What revenue does the Government derive from these bores? During 1898 we had sixteen bores unleased; they were under caretakers, and they produced a total revenue of £790.

1629. Will you state the names of the different bores, the districts in which they are situated, what amount they cost, and what revenue they produce? I have prepared this information in the shape of a return, which reads as follows:—

RETURN re Artesian Bores, New South Wales, sunk by Government.

Under Lessees.

Name.	Locality.	Depth in feet.	Flow in gallons per diem.	Cost.	Revenue from Leasing.	Expenditure—Wages, &c., Bonus.	Use of Flow.	Success or Failure, &c.
				£ s. d.	£ s. d.	£ s. d.		
Tinchelooka	Bourke to Wanaaring	1,231	52,000	1,463 15 6	90 0 0	.....	Stock.....	Success
Cuttaburra	" "	1,707	20,000	2,302 15 11	3 0 0	19 11 8	" .....	"
Sibraas	" "	1,059	700,000	1,554 19 8	27 0 0	.....	" .....	"
Kulkyne	" "	1,781	3,000	2,564 12 5	12 0 0	.....	" .....	"
Goonery	" "	120	1,000	240 0 0	6 0 0	8 6 8	" .....	"
Dargle	" "	1,179	50,400	1,618 4 1	25 0 0	.....	" .....	"
Yantabulla	Bourke to Hungerford	587	17,200	691 3 7	30 0 0	.....	" .....	"
Enngonia	" "	1,666	320,000	3,079 4 9	55 0 0	.....	Stock and irrigation.	"
Youngerrina	" "	165	120,000	763 4 6	20 0 0	.....	" .....	"
Warroo	" "	385	17,000	705 8 7	12 0 0	9 11 8	" .....	"
Walkdens	" "	1,604	200,000	2,059 15 7	42 0 0	.....	" .....	"
KerribreeCreek	" "	1,193	800,000	1,602 15 1	30 0 0	.....	" .....	"
Gidgia Camp	Bourke to Barrington	2,002	7,000	2,599 0 0	160 0 0	.....	" .....	"
Barrington	" "	1,711	170,000	3,785 10 9	25 0 0	.....	" .....	"
Belalie	" "	1,565	400,000	2,882 2 9	20 0 0	.....	" .....	"
Native Dog	" "	457	500,000	1,009 6 5	25 0 0	.....	" .....	"
Brigalow	Ledknapper to Culgoa	2,292	150,000	3,232 14 11	10 0 0	.....	" .....	"
Opera	Louth to Wanaaring	803	Pumping.	1,357 13 6	5 0 0	20 0 0	Stock.....	"
Barrona	" "	1,010	200,000	1,482 2 4	25 0 0	.....	" .....	"
Mulgany	Wanaaring to Milparinka	1,700	Pumping.	1,445 15 9	5 0 0	18 15 0	" .....	"
Currabulla	" "	1,973	"	2,468 1 5	1 0 0	18 15 0	" .....	"
Osacca	" "	1,646	350,000	3,276 5 7	50 0 0	.....	" .....	"
Tineroo	" "	1,858	800,000	3,835 6 0	30 0 0	.....	" .....	"
Carinda	Carinda	1,702	1,009,000	2,530 14 9	30 0 0	.....	Stock and irrigation.	"
Goodooga	Goodooga	2,812	432,000	5,608 9 4	35 0 0	.....	" .....	"
Dungle	Collarendabri to Angledool	2,566	850,000	7,315 12 1	65 0 0	.....	" .....	"
Bulyeroi	Millie to Collarendabri	2,424	1,750,000	3,690 19 4	255 0 0	.....	Stock, irrigation, and woolsour.	"
Gil Gil	Moree to Boggabilla	3,092	700,000	7,756 17 8	200 0 0	.....	" .....	"
Wallon	" "	3,747	800,000	7,980 12 5	208 0 0	.....	" .....	"
Maramina	Walgett to Goodooga	2,271	1,069,200	3,539 12 0	201 0 0	.....	" .....	"
Kelly's Camp	Bourke to Hungerford	1,577	600,000	2,188 3 0	40 0 0	.....	Stock and irrigation.	"
		49,885	12,078,800	86,630 19 8	1,683 0 0	95 0 0.		

Under Caretakers.

Name.	Locality.	Depth in feet.	Flow in gallons per day.	Cost.	Revenue January to May.	Expenditure—Wages, &c., Jan. to May.	Use of Flow.	Success or Failure.
				£ s. d.	£ s. d.	£ s. d.		
Kenmore	Bourke to Hungerford	1,539	2,050,000	1,672 2 11	13 13 4	45 6 0	Stock.....	Success
Morce	Moree	2,792	1,108,000	6,495 19 1	57 0 0	52 17 0	Stock and irrigation.	"
Dolgelly	Moree to Boggabilla	4,086	745,000	10,614 8 2	18 9 7	40 4 0	" .....	"
Moongulla	Collarendabri to Angledool	2,570	557,735	6,838 10 5	42 5 6	56 12 6	Stock, irrigation, and woolsour.	"
Pera	Bourke to Wanaaring	1,154	360,000	1,487 17 8	15 17 7	35 0 0	Stock and irrigation.	"
Sandy Creek	Silverton and Cobham	678	Pumping	1,872 11 7	14 12 5	60 8 0	Stock.....	"
Tenandra	Tenandra	730						
		1,036	1,000,000	1,348 7 6	.....	52 17 0	Stock and irrigation.	"
Toolooro*	Walgett to Coonamble	1,543	2,000,000	2,428 11 11	9 3 9	52 17 0	" .....	"
Wanaaring	Wanaaring	1,644	400,000	2,702 3 9	18 0 3	52 17 0	Stock and townsupply	"
Woolabra	Narrabri to Moree	1,988	500,000	3,544 0 9	1 1 3	52 17 0	Stock, irrigation, and woolsour.	"
		19,760	8,720,735	39,004 13 9	190 3 8	501 15 6		

\* Late Eurōka.

Not yet under Lessees or Caretakers.

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Name.	Locality.	Depth in feet.	Flow in gallons per day.	Cost.	Revenue.	Expenditure—Wages, &c.	Use of Flow.	Success or Failure.
Yantabulla (1)	Bourke to Hungerford .....	209	4,000	£ 754 1 10	£ s. d.	£ s. d.	Stock.....	Success
Tulloona .....	Moree to Boggabilla .....	3,534	783,000	5,024 0 7	.....	.....	" .....	"
Clifton .....	Wanaaring to Milparinka .....	1,638	2,000,000	3,476 14 9	.....	.....	" .....	"
Poison Point .....	Bourke to Wanaaring .....	1,399	20,000	1,650 15 2	.....	.....	" .....	"
Finger Post .....	Goodooga to Angledool.....	3,144	750,000	5,800 4 10	.....	.....	" .....	"
Wilby Wilby.....	Walgett to Goodooga .....	2,162	1,114,800	2,911 3 6	.....	.....	" .....	"
Warren .....	Warren.....	869	1,000,000	1,151 5 2	.....	.....	Town supply	"
Coonamble.....	Coonamble .....	1,302	1,878,005	3,060 0 6	.....	.....	" .....	"
Bourbah .....	Bourbah .....	1,797	1,134,000	4,030 11 0	.....	.....	Stock.....	"
Gilgandra .....	Gilgandra.....	3,035	2,000	6,271 13 8	.....	.....	" .....	"
Narrowin .....	Brewarrina to Nyngan .....	1,179	6,000	1,638 13 10	.....	.....	" .....	"
Nyngan .....	Nyngan .....	427	} Pumping	1,733 10 4	.....	.....	.....	.....
		710						
Green Camp .....	Nyngan to Warren .....	1,327	" .....	2,154 15 7	.....	.....	.....	"
Tolarno .....	Ivanhoe to Menindie .....	1,602	" .....	3,036 1 7	.....	.....	.....	"
91-Mile .....	Wanaaring to Milparinka.....	2,002	" .....	4,013 1 9	.....	.....	.....	"
Warratta .....	do do .....	2,393	" .....	4,969 8 1	.....	.....	.....	"
Packsaddle .....	Silverton to Cobham .....	1,942	" .....	3,982 3 1	.....	.....	.....	"
Hay.....	Hay .....	1,962	" .....	4,011 7 1	.....	.....	.....	"
Dolmoreve.....	Balranald to Ivanhoe .....	1,237	} "	2,817 15 0	.....	.....	.....	.....
		208						
Trangie .....	Trangie .....	1,021	" .....	1,239 3 5	.....	.....	.....	"
Nevertire .....	Nevertire .....	2,525	" .....	5,301 8 7	.....	.....	.....	"
Ooarnoo .....	Tibooburra .....	1,359	" .....	1,970 0 2	.....	.....	.....	"
Paldrumata .....	Cobham .....	780	" .....	1,281 19 4	.....	.....	.....	"
Bourke .....	Bourke .....	600	} "	2,270 0 1	.....	.....	.....	Failure
		145						
		150						
		1,467						
Toorincaca* .....	Ivanhoe to Menindie .....	1,488	.....	2,553 18 8	.....	.....	.....	"
Bancanya .....	Silverton to Cobham .....	3,615	.....	8,535 8 2	.....	.....	.....	"
Holey Box* .....	Ivanhoe to Mossgiel .....	1,230	.....	1,918 18 7	.....	.....	.....	"
Quarry Reserve* .....	Bourke to Cobar.....	1,391	.....	1,530 14 6	.....	.....	.....	"
Whitewood .....	Brewarrina to Angledool .....	1,240	.....	1,357 10 10	.....	.....	.....	"
Berrawinnia .....	Hungerford .....	855	.....	1,719 10 7	.....	.....	.....	"
Bendermere .....	Brewarrina to Gongolgon .....	1,726	.....	2,390 13 8	.....	.....	.....	"
		53,670	8,691,805	94,556 13 11	.....	.....	.....	.....

\* These should not properly be classed as failures ; there is a small pumping supply available.

## SUMMARY—Artesian Boring.

1. Number of flowing wells .....	48
2. Number of pumping wells .....	16
3. Number of failures.....	8
4. Number let, but not commenced .....	11
5. Number in progress .....	9
Total .....	92

6. Total depth bored to date .....	134,815 feet.
7. Total cost of 72 bores completed .....	£220,192 7s. 4d.
8. Total depth of bores completed.....	123,315 feet.
9. Average cost per foot of bores completed .....	£1 15s. 9d.
10. Average depth of bores completed .....	1,712 feet.
11. Total cost of 48 flowing bores .....	£154,260 16s.
12. Total depth bored of flowing wells .....	84,029 feet.
13. Average cost per foot of flowing bores .....	£1 16s. 8d.
14. Average depth bored of flowing bores.....	1,750 feet.
15. Total cost of 16 pumping bores.....	£43,654 16s. 3d.
16. Total depth bored of pumping bores .....	25,379 feet.
17. Average cost per foot of pumping wells .....	£1 14s. 4d.
18. Average depth of pumping wells .....	1,586 feet.
19. Estimated supply from 48 flowing wells .....	29,491,340 gallons per day.
20. Estimated supply from 16 pumping wells .....	741,000 gallons per day.
21. Estimated supply from 64 wells .....	30,232,340 gallons per day.

There are 125 private wells in the country, the output from which is about 43,000,000 gallons, while the output from the 64 Government wells is 30,232,340. Other bores are in progress at the present time.

1630. Have the lessees sole right to use the water from these bores? They have, subject to a limitation. They have to supply all travelling stock, and to carry out a certain amount of cultivation for the Department if they are called upon to do so; and they are authorised to make a certain regulation charge, viz., 10s. per 1,000 for sheep, 1d. per head for horses and bullocks,  $\frac{1}{4}$ d. per head for camels and goats.

1631. Is there much cultivation carried on at the bores? Not a great deal.

1632. What is the charge to private consumers? The charge for water which is carried away for domestic purposes is 6d. per 100 gallons. During this last exceedingly dry season a great deal of water has been supplied free of charge. Wherever we have had caretakers, any person who has asked for free water has been allowed to have a supply.

1633. *Dr. Garran.*] You could not interfere with the lessees, I suppose? No; we have in some cases, but we have made a small monetary compensation to them for the concessions they made to the public.

1634. *Mr. Watson.*] Many lessees charged lower than the standard rates? A great many of them do. The standard rate we charge is the price which they may not exceed.

1635. *Mr. Shepherd.*] Is there a disposition generally amongst residents to use this water for irrigation purposes? I cannot say that there is. It is growing very considerably. I had a letter some little time ago from Mr. Mullen, who is doing our surveys under the Artesian Wells Act, in which he told me that he

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had more work in laying out small irrigation farms for stations at the bores than he could complete before the end of the year. He said there was a distinct advance all along the line in the direction of putting in small areas for cultivation and the irrigation of the land just for station requirements. There is nothing done in a large and extended way.

1636. Have you any return to show the progress made in irrigation during the last three years? No.

1637. In the amount of acreage? No.

1638. There is an increase? Yes.

1639. Does there seem to be a desire on the part of people to acquire a knowledge as to how to apply the water? I think so, decidedly. The number of visitors at the Pera settlement are very many, and they are very anxious to get information from our farm manager as to the methods of applying the water and the results he gets, and they criticise his methods very freely.

1640. Has there been any attempt made to instruct the people as to the proper way of using this water for irrigation purposes? In no other way than by the actual experiments at Pera.

1641. The Pera bore seems to be about as successful as any? There is no question that it has got beyond the range of experiment. We should have been much further ahead had it not been for this unfortunate falling off in the supply of water at the present juncture.

1642. Have you remarked a falling off in the supply at any of the bores? We did at Pera.

1643. But not at any other? At the Native Dog and at Osaca we have noticed it, but that is explicable. We put that result down to imperfect casing. At both those places and at Pera we think the flow is getting away and losing itself underground before it reaches the surface. I think that is the only feasible explanation of it.

1644. Do you think it is attributable to the exhaustion of the supply, or perhaps to one bore robbing another? I do not like to admit that there is any possibility of the exhaustion of the supply. Perhaps I might be permitted to read to you what the best authorities we have say with regard to the exhaustion of the supply. Mr. Jack, the Government Geologist of Queensland, Mr. Pittman, our own Government Geologist, and Professor David have all gone into this matter to a more or less extent, and what I propose to read are simply some extracts from a paper which Mr. Jack read before the Science Congress in Brisbane. I think when you hear what he has to say, and what Mr. Pittman has to say, you will see that any permanent or serious diminution of the flow is not a possibility in our generation. Of course, the whole thing is speculative to a greater or less extent, but still there is such a strong presumption of correctness in what they say that you cannot help but be impressed by their views.

In Queensland the examination of the intake beds of the artesian water system was deemed of sufficient national importance to warrant the Government Geologist and his colleague, Mr. Assistant-Geologist Maitland, now Government Geologist of Western Australia, being detailed on a special mission to that end. When Mr. Jack commenced his observations it was currently believed that the area of the intake beds was extremely limited.

At the time they commenced to make that examination the intake bed was supposed to be very limited in extent. I think, roughly speaking, it was supposed to be one-eighth of a mile wide and about a couple of hundred miles long.

The subsequent examination demonstrated that area to be forty times larger than was supposed, and in referring to this matter he stated: "The outcrop of the porous strata, massed together under the name of the Blythesdale Braystones (which are not the only porous beds of the lower cretaceous), having been ascertained to be at least 5 miles wide over 1,000 miles of country, proved to be less than forty times greater than the total width (one-eighth of a mile) of the various porous beds assumed by Mr. J. S. Henderson, hydraulic engineer, which I thought a liberal estimate."

Mr. Jack goes on to say:—

"The idea that water entering the porous beds ultimately finds its way to the sea by underground channels, or by percolations, through the intervening portions of the earth's crust, has been for a long time a matter of vague speculation on the part of theorists, who did not take into account, or who were ignorant of, the essential element of the geological structure of the region in question. That such a communication could only take place through the medium of the intake beds themselves may be said to have been the common knowledge of geologists for a long time, but so far as I am aware, as regards the Australian area, this was distinctly pointed out in 1893 by Prof. David, who discussed the probability of the continuity of the porous beds of the lower cretaceous formation to the Gulf of Carpentaria in the north and to Lake Eyre on the Coorong coast on the south."

1645. *Dr Garran.*] Where are the intakes situated in Queensland? They run up the west of the foothills of the coastal range. The writer of this paper continues as follows:—

This idea has been further dealt with, and it was insisted upon that the loss of water by such rivers as the Darling, and presumably by the Queensland rivers crossing the outcrop of the Blythesdale Braystone, amounted to a proof of the circulation of water through the Braystone itself to the sea, inasmuch as the comparatively trifling amount discharged by the bores now in existence would not make a void in the porous strata anything like sufficient to absorb the annual loss of water by the rivers, and no other outlet than the sea was conceivable. The conclusion was drawn that the water-bearing strata must run into the sea, and that unless the strata were periodically replenished, the sea level would ultimately become the level to which the water of the bores would rise. "A drought," Mr. Jack says, "sufficiently long to bring about this result would, no doubt, have for a prior result the destruction of the greater part of the land fauna of this part of Australia, including the genus homo." Far short of this, however, he cannot conceive of the temporary diminution or cessation of the flow of some at least of our artesian wells. "Finally, as the leakage into the sea is so vast and so entirely beyond human control, the draught upon our ground supply made by artesian wells is not worth controlling."

1646. After that paper was written, Mr. Pittman's investigation showed that the intake beds could be enormously added to by the inclusion of an immense area of Trias Jura formation which was lying to the eastward of all this known intake bed as mapped by Mr. Jack, perhaps adding about 20,000 miles.

He considers there is an area of about 200 miles in width lying to the east of the outcrop of the Blythesdale Braystone which, though hitherto unprospected, possesses all the conditions which are regarded as necessary to the occurrence of artesian water, and he expresses the opinion that the probabilities of artesian water being obtained in large quantities to the east of the outcrop of the Blythesdale Braystones are very strong indeed, and concludes by saying: "I would even go so far as to suggest that the porous strata of the Trias Jura formation may constitute the chief storage beds of the artesian water supply of Australia."

That adds a very large area, in addition to that mapped out by Mr. Jack. Professor David, in a paper read before the Royal Society upon this subject some years ago, gave an interesting and speculative calculation, showing the vastness of the storage capacity of the artesian basin in New South Wales. From memory, the calculation is somewhat as follows:—

If the area of the porous beds of the cretaceous be estimated at 40,000 square miles (the superficial area of the cretaceous is 62,000 square miles), and the imbibing capacity of the porous beds is  $2\frac{1}{2}$  gallons per cubic foot (that of the upper green sand of Europe is 3 gallons per cubic foot), and if the beds average 20 feet thick, the quantity of water in them would maintain the present outflow from the artesian wells in New South Wales (say 41,000,000 gallons daily) for 3,726 years, provided, of course, the pressure is maintained by additions of rain-water at the intake.

It



It is mainly on these three statements I rely when I say that I do not think that any serious or permanent diminution can take place in our time, or at any rate until the wells are so multiplied that they actually interfere with one another. Probably one hundred times more than we have at present.

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1647. Is it found as a rule that the water is absorbed into the soil, or does it find its way to some water-course? It runs for miles. There is a certain amount of absorption; but where the water is helped, as it is on some of the stations;—I could quote places—the water runs fully 60 miles from the bores.

1648. And, ultimately, it falls into a watercourse? Yes, they utilise the watercourse, ease the bars down, and help it along. That is a very wasteful way of handling the water, but still it is economical.

1649. Is it found that the quality of the water varies very much at the different bores? Not generally. On the road from Bourke to Wanaaring, when you get on the other side of the Warrego, there is a very marked difference in the quality of the water; it is very much inferior to the quality of the water at the other bores. That is, inferior as far as its contents of the alkaline-carbonates are concerned. I think very nearly all of them, with one exception, are potable by human beings.

1650. And they are largely used for domestic purposes? Very largely.

1651. You are inclined to think, on the whole, that the application for areas for irrigation purposes will be largely increased? I think as the people get experience, and we get population, there is no question that it will.

1652. As a rule, irrigation water seems to facilitate the growth of the crops very much? It does enormously in that hot district. The soil gets very hot, and with the application of water it is like a hot-bed.

1653. It comes out of the bore heated to a certain extent? It is; but we do not supply it in its heated state. We prefer to cool the water and aerate it before it is used. It is very heavily charged with sulphuretted hydrogen when it first comes up. That is volatile, and goes off upon exposure to the air.

1654. Have you had experience in artesian-boring in other parts of the world? None whatever, except in Australia, and from reading what other countries are doing.

1655. *Vice-Chairman.*] Taking the particular district to which this inquiry relates, which is the most important and the most successful of the bores? The Pera, which is within 7 miles of Bourke if you cross by the punt, and within 15 miles of Bourke if you go by the bridge.

1656. What is the nature of the soil at the Pera bore? It is a red chocolate soil—a gidgee forest soil.

1657. What are its ingredients?

#### ANALYSES OF SOILS.

Sample marked "A."

Locality of soil—Pera Bore.  
Nature and depth of soil—Sand.  
Reaction of soil—Very slightly alkaline.  
Capacity for water—27·66 per cent.  
Absolute weight per acre, 6 inches deep—3,457,091 lb.

#### Mechanical analysis.

Root fibres.....	·00 per cent.
Stones over $\frac{1}{4}$ inch diameter .....	·00 "
Coarse gravel, more than $\frac{1}{16}$ inch diameter .....	·00 "
Fine gravel, more than $\frac{1}{32}$ inch diameter .....	·93 "
Fine soil—99·07 per cent. { Sand .....	86·16 "
{ Impalpable matter, chiefly clay .....	12·91 "

#### Analysis of fine soil.

Moisture .....	2·159 per cent.
Volatile and combustible matter, principally organic .....	2·329 "

#### Fertilising substances soluble in hot hydrochloric acid of 1·1 specific gravity.

##### General value.

Lime (CaO) ·165 per cent. Satisfactory—equivalent to 5,610 lb. (a) in an acre of soil 6 inches deep.  
Potash (K<sub>2</sub>O) ·223 per cent. Satisfactory—equivalent to 7,582 lb. (b) in an acre of soil 6 inches deep.  
Phosphoric acid (P<sub>2</sub>O<sub>5</sub>) ·087 per cent. Fair—equivalent to 2,958 lb. (c) in an acre of soil 6 inches deep.  
Nitrogen ·100 per cent. Fair—equivalent to 2,788 lb. (d) in an acre of soil 6 inches deep.  
Ferrous Oxide (FeO) ·144 per cent.

NOTE.—(a) This amount of lime would be supplied in 6,233 lb. of quicklime, or 8,415 lb. of slaked lime, or 11,220 lb. of chalk.

(b) This amount of potash would be supplied in 15,164 lb. of commercial sulphate of potash, or 63,153 lb. of kainit.

(c) This amount of phosphoric acid would be supplied in 11,832 lb. of commercial bone-dust, or 17,748 lb. of superphosphate.

(d) This amount of nitrogen would be supplied in 13,940 lb. of sulphate of ammonia, or 16,728 lb. of nitrate of soda.

Sample marked "B."

Locality of soil—Pera Bore.  
Nature and depth of soil—Sand.  
Reaction of soil—Very slightly alkaline.  
Capacity for water—30·33 per cent.  
Absolute weight per acre, 6 inches deep—3,357,092 lb.

#### Mechanical analysis.

Root fibres.....	·00 per cent.
Stones over $\frac{1}{4}$ inch diameter .....	·00 "
Coarse gravel, more than $\frac{1}{16}$ inch diameter .....	·00 "
Fine gravel, more than $\frac{1}{32}$ inch diameter .....	1·04 "
Fine soil—98·96 per cent. { Sand .....	85·00 "
{ Impalpable matter, chiefly clay .....	13·96 "

#### Analysis of fine soil.

Moisture.....	2·872 per cent.
Volatile and combustible matter, principally organic .....	2·925 "

#### Fertilising substances soluble in hot hydrochloric acid of 1·1 specific gravity.

##### General value.

Lime (CaO) ·305 per cent. Satisfactory—equivalent to 10,065 lb. (a) in an acre of soil 6 inches deep.  
Potash (K<sub>2</sub>O) ·200 per cent. Satisfactory—equivalent to 6,600 lb. (b) in an acre of soil 6 inches deep.  
Phosphoric acid (P<sub>2</sub>O<sub>5</sub>) ·161 per cent. Satisfactory—equivalent to 5,313 lb. (c) in an acre of soil 6 inches deep.  
Nitrogen ·102 per cent. (equal to ·124 per cent. ammonia.) Satisfactory—equivalent to 3,366 lb. (d) in an acre of soil 6 inches deep.  
Ferrous Oxide (FeO) ·252 per cent.

NOTE.—(a) This amount of lime would be supplied in 11,133 lb. of quicklime, or 15,097 lb. of slaked lime, or 20,130 lb. of chalk.

(b) This amount of potash would be supplied in 13,200 lb. of commercial sulphate of potash, or 54,978 lb. of kainit.

(c) This amount of phosphoric acid would be supplied in 21,252 lb. of commercial bone-dust, or 31,878 lb. of superphosphate.

(d) This amount of nitrogen would be supplied in 16,330 lb. of sulphate of ammonia, or 20,196 lb. of nitrate of soda.

Sample

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Sample marked "C."

Locality of soil—Pera Bore.  
Nature and depth of soil—Light sandy loam.  
Reaction of soil—Slightly acid.  
Capacity for water—31 per cent.  
Absolute weight per acre, 6 inches deep—3,387,704 lb.

*Mechanical analysis.*

Root fibres.....		·00 per cent.
Stones over $\frac{1}{4}$ inch diameter .....		·00 "
Coarse gravel, more than $\frac{1}{10}$ inch diameter .....		·00 "
Fine gravel, more than $\frac{1}{20}$ inch diameter .....		1·35 "
Fine soil—98·65 per cent. { Sand .....	78·91	"
{ Impalpable matter, chiefly clay .....	19·74	"

*Analysis of fine soil.*

Moisture .....	2·537	"
Volatile and combustible matter, principally organic .....	3·449	"

*Fertilising substances soluble in hot hydrochloric acid of 1·1 specific gravity.*

General value.

Lime (CaO) ·155 per cent. Satisfactory—equivalent to 5,115 lb. (a) in an acre of soil 6 inches deep.  
Potash (K<sub>2</sub>O) ·241 per cent. Satisfactory—equivalent to 7,953 lb. (b) in an acre of soil 6 inches deep.  
Phosphoric acid (P<sub>2</sub>O<sub>5</sub>) ·084 per cent. Fair—equivalent to 2,772 lb. (c) in an acre of soil 6 inches deep.  
Nitrogen ·102 per cent. (equal to ·124 per cent. ammonia.) Satisfactory—equivalent to 3,366 lb. (d) in an acre of soil 6 inches deep.

Ferrous Oxide ·252 per cent.

NOTE.—(a) This amount of lime would be supplied in 5,633 lb. of quicklime, or 7,672 lb. of slaked lime, or 10,230 lb. of chalk.  
(b) This amount of potash would be supplied in 15,906 lb. of commercial sulphate of potash, or 66,238 lb. of kainit.  
(c) This amount of phosphoric acid would be supplied in 11,088 lb. of commercial bone-dust, or 16,632 lb. of superphosphate.  
(d) This amount of nitrogen would be supplied in 16,830 lb. of sulphate of ammonia, or 20,196 lb. of nitrate of soda.

Sample marked "D."

Locality of soil—Pera Bore.  
Nature and depth of soil—Light loam.  
Reaction of soil—Alkaline.  
Capacity for water—44·33 per cent.  
Absolute weight per acre, 6 inches deep—3,122,402 lb.

*Mechanical analysis.*

Root fibres.....		·20 per cent.
Stones over $\frac{1}{4}$ inch diameter .....		·00 "
Coarse gravel, more than $\frac{1}{10}$ inch diameter .....		·20 "
Fine gravel, more than $\frac{1}{20}$ inch diameter .....		1·25 "
Fine soil, 98·35 per cent. { Sand .....	74·72	"
{ Impalpable matter, chiefly clay .....	23·63	"

*Analysis of fine soil.*

Moisture .....	5·931	"
Volatile and combustible matter, principally organic.....	3·418	"

*Fertilising substances soluble in hot hydrochloric acid of 1·1 specific gravity.*

General value.

Lime (CaO) 2·611 per cent. Very good—equivalent to 80,941 lb. (a) in an acre of soil 6 inches deep.  
Potash (K<sub>2</sub>O) ·380 per cent. Good—equivalent to 11,780 lb. (b) in an acre of soil 6 inches deep.  
Phosphoric acid (P<sub>2</sub>O<sub>5</sub>) ·117 per cent. Satisfactory—equivalent to 3,627 lb. (c) in an acre of soil 6 inches deep.  
Nitrogen ·197 per cent. (equal to ·240 per cent. ammonia.) Satisfactory—equivalent to 6,107 lb. (d) in an acre of soil 6 inches deep.

Ferrous Oxide ·288 per cent.

NOTE.—(a) This amount of lime would be supplied in 89,934 lb. of quicklime, or 121,411 lb. of slaked lime, or 161,882 lb. of chalk.  
(b) This amount of potash would be supplied in 23,560 lb. of commercial sulphate of potash, or 93,127 lb. of kainit.  
(c) This amount of phosphoric acid would be supplied in 14,508 lb. of commercial bone-dust, or 21,763 lb. of superphosphate.  
(d) This amount of nitrogen would be supplied in 30,535 lb. of sulphate of ammonia, or 36,642 lb. of nitrate of soda.

Sample marked "Subsoil."

Locality of soil—Pera Bore.  
Nature of subsoil—Loam.  
Reaction of soil—Alkaline.  
Capacity for water—36 per cent.  
Absolute weight per acre, 6 inches deep—3,246,890 lb.

*Mechanical analysis.*

Root fibres.....		·00 per cent.
Stones over $\frac{1}{4}$ inch diameter .....		·00 "
Coarse gravel, more than $\frac{1}{10}$ inch diameter .....		8·54 "
Fine gravel, more than $\frac{1}{20}$ inch diameter .....		5·04 "
Fine soil { Sand .....	63·58	"
{ Impalpable matter, chiefly clay .....	22·84	"

*Analysis of fine soil.*

Moisture .....	5·824	"
Volatile and combustible matter, principally organic .....	7·318	"

*Fertilising substances soluble in hot hydrochloric acid of 1·1 specific gravity.*

General value.

Lime (CaO) 10·166 per cent. Very good—equivalent to 330,069 lb. (a) in an acre of soil 6 inches deep.  
Potash (K<sub>2</sub>O) ·462 per cent. Very good—equivalent to 14,734 lb. (b) in an acre of soil 6 inches deep.  
Phosphoric acid (P<sub>2</sub>O<sub>5</sub>) ·311 per cent. Good—equivalent to 9,952 lb. (c) in an acre of soil 6 inches deep.  
Nitrogen ·067 per cent. (equal to ·081 per cent. ammonia.) Fair—equivalent to 2,144 lb. (d) in an acre of soil 6 inches deep.

Magnesia (MgO) ·262 per cent.

Ferrous Oxide (FeO) ·216 per cent.

NOTE.—(a) This amount of lime would be supplied in 366,743 lb. of quicklime, or 495,103 lb. of slaked lime, or 660,138 lb. of chalk.  
(b) This amount of potash would be supplied in 29,563 lb. of commercial sulphate of potash, or 39,850 lb. of kainit.  
(c) This amount of phosphoric acid would be supplied in 39,808 lb. of commercial bone-dust, or 59,712 lb. of superphosphate.  
(d) This amount of nitrogen would be supplied in 10,720 lb. of sulphate of ammonia, or 12,864 lb. of nitrate of soda.

The

The lime found corresponds to 18·15 per cent. calcium carbonate. The subsoil is remarkably rich in plant-food, and the general values assigned to each ingredient are those that would be attached to a surface soil. The alkalinity is very slight, being only about 0·1 per cent. The freedom of the subsoil from alkali is a very encouraging sign, as it is obvious that if the conditions are favourable leaching out the alkali from the surface the subsoil is not saturated to such an extent as to render further absorption of alkali by it impossible. The soil is itself a rich one, and as long as the water used circulates freely there should not be much danger.

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That is only the first analyses of the soil; we had a very long series of analyses of the soils made, subsequently, after three years irrigation, which I could hand in if desired. We had six analyses made of the soil from the land under irrigation.

1658. They are of much the same character? Very much the same. They were taken when we commenced the work, and those analyses made subsequently show that the increase of alkaline matter in them is infinitesimal.

1659. *Mr. Watson.*] Although it was anticipated that the application of water would increase the proportion? Yes. In one instance there is even less alkali now than when we made the first analysis.

1660. *Dr. Garran.*] Was that analysis of soil made since the bores have been put down? Previously.

1661. Before the site was selected? No, afterwards.

1662. Is there any examination of the soil before a bore is put down? No chemical examination; we get the water before we attempt anything at all.

1663. Is the selection of the site of the bore made under any superintendence by a general engineer in the Department, or is it left to the local managers? It is decided by the Government Geologist and myself. The primary object of these bores was the watering of the stock routes. We consult the Chief Inspector of Stock, and select a position where it is most required and most useful for travelling stock, and then we ask the Government Geologist if he considers that there is a probability of the occurrence of artesian water on the spot; and it is by his report we are guided generally; the actual fixing of the exact spot is left to the local officer—that is immaterial.

1664. The general purport of all this is to open up country for stock traffic and teamsters? Yes.

1665. And the idea of agriculture was quite subordinate to that consideration? Entirely; it simply arose out of the enormous volume of water which was there in excess of requirements.

1666. In fact, it was the Pera bore which first gave the idea of having agricultural settlements attached to a bore? No; the Native Dog was the first one. It is 45 miles from Bourke, on the Barrington Road. The Minister went out to see the results on a small area of 16 acres, at the Native Dog bore. He was accompanied by Mr. Thompson, the Director of the Hawkesbury College, and after he came back to Bourke he visited the Pera bore, which was then completed as a stock bore. In view of the distance which the Native Dog was from Bourke, he thought that Pera would be a more convenient position for such an experiment, and accordingly he gave directions that it was to be carried out at Pera, and that we should lease the Native Dog.

1667. If you are now going to consider irrigation as well as the supply of stock, you always have to consider before you put down a bore whether you are fixing your bore on a site from which you can deliver the water eventually by gravitation? That is a point we have never lost sight of. We have always selected the handiest spot for the bore.

1668. We have had some evidence, I think, to the effect that the question of gravitation has not been considered, and that there are some bores in places where you could not use the water for irrigation without lifting it? I hardly think that in those cases this Department is responsible for the selection of the sites of the bores.

1669. Still it is so? It is so. In most cases it is not so.

1670. I suppose in these out-of-the-way places there would be no market for irrigation produce, even if you made some few farms there? There would be no market, perhaps, for vegetable products; but there is a good market up there for dried fruit and products of that description, and for fodder crops there will always be a market.

1671. I suppose for fodder crops more than for dried fruits? Yes.

1672. Dried fruit requires some skill and manipulation? Dried fruit is enormously more profitable than the fodder.

1673. But it is not every plain farmer who can produce dried fruit? No.

1674. Any plain farmer can produce a lucerne crop? Yes.

1675. Even to irrigate simply an acre or two for fodder you require gravitation? Yes.

1676. Therefore, it is of no use to put your bore down in a hollow? Not at all.

1677. Is the Pera bore well situated for gravitation? Yes; the country there is as nearly level as you can get it. I do not think there is a fall of about a foot in the mile. Of course, under a system such as we have there that is immaterial, because we can give a fall to the flume.

1678. How high does the water rise above the surface of the ground? About 9 feet; it is delivered into an irrigating tank, and from there it travels in a flume, which I think has a fall of 4 feet to the mile.

1679. Do you catch the water? The water comes up from the bottom of the tank, and it sprays into the tank.

1680. You catch the water at a sufficient height to command the ground? Yes.

1681. What proportion of available land at Pera has been taken up? The whole of the blocks are taken.

1682. Have any of the cultivators there been sufficiently long at work to fairly test the profitability of it? Yes. Two men named Munro and Hersey are making a living. The others are a different stamp of men, and are not so used to the steady, patient labour which is required to produce the results there obtained.

1683. Have these men, who have been at work, gathered sufficient experience now to be a guide to the newcomers? I should hardly like to say that. Both Munro and Hersey were at this thing long before they came to Pera—Munro came from the Clarence, where he had had a lot of experience in cultivation.

1684. They are experts to a certain extent, and men of intelligence? Yes; they are good, respectable, hard-working men.

1685. You do not want to irrigate much on the Clarence? No; Munro had had absolutely no experience of irrigation until he came to Bourke, but he had had good agricultural experience.

1686. We are almost uniformly told that the first thing which irrigators have to learn is not to place too much faith in water? Exactly. The tendency up there—and it is very hard to knock it out of them—is simply to drown everything. They do not cultivate enough. Munro and Hersey are the only men there who are really alive to the benefit of cultivating.

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1687. As regards the bulk of the other men, what stamp of men are they? They are all labouring men except one, who, I think, was a clerk in a bank.
1688. They have not been practical agriculturists? Not at all.
1689. They have everything to learn? They have everything to learn as they go along.
1690. Have any pains been taken by your Department to teach them? Yes; the manager of the farm instructs them, especially in pruning, cultivation, and all that sort of thing.
1691. In the application of the water? They see exactly how it is applied on the Government farm. It is constantly dinned into their ears not to put too much water on, but they do not see why they should not. They think that the moment the surface gets hard and dry it wants water.
1692. Is the water conveyed in little ditches or in pipes? It is conveyed in a semi-circular iron flume, which is open at the top.
1693. Is that a main channel or a local distributing channel? It is a main channel.
1694. Every man puts it over his own land as he likes? Yes; we deliver the water in three places on each block.
1695. With regard to fruit-trees, do they have little channels round the trees? Mostly between the trees.
1696. With regard to lucerne paddocks, how do they distribute the water? The flooding system is used for lucerne. The land is divided into checks and each is flooded in rotation.
1697. It is a thirsty soil? Yes. It is so thirsty that we have not attempted to provide any system of subsoil drainage at Pera.
1698. It drains itself? Yes.
1699. Is this fluming expensive? It costs the Government about 1s. 4d. a foot.
1700. The Government provides the fluming and takes the water to the edge of each man's land? Yes.
1701. What charge are you making for the water? We charge £5 a year for 20 acres of land and the water they use.
1702. You leave them to determine how much water they will take? They are limited really to 21,000 gallons per day per block.
1703. How do you measure it—in open flume? It is measured on time.
1704. It is allowed to run for so many hours? Yes; we know exactly how long it takes to supply the quantity of water. In America they have a system which they call horary rotation, and that is practically what we do at Pera.
1705. A man would want more water for his lucerne than for his fruit-trees? Yes.
1706. The question is brought forward as to which is the better method of irrigating—by pumping from the river or by using water from a bore; and it has been pointed out to the Committee that close to Bourke, on the other side of the Darling River, there is a magnificent site for irrigating from the river;—if there were an irrigation farm on the North Bourke site, would that cut out the Pera bore? I do not think it would. It would put those who took up land at the North Bourke site on a better footing than the Pera men, because they would be nearer to town; but still I do not think it would interfere with the sale of Pera products, because there is a market at Bourke which is quite sufficient for the products of two or three Peras.
1707. Your farmers at the bore have 8 miles of carting, while the farmers at North Bourke would have 3 miles? Yes.
1708. Is the soil at North Bourke equally as good as that at Pera? It is of a more sandy nature than the soil at Pera. It is purely red sand. From West Bourke until you get out to Fort Bourke station boundary you have nothing but a series of undulating sand-hills.
1709. That is a fertile soil? It is very good for cereals.
1710. Is it quickly exhausted? I should think it would be. I have never seen it or heard of it being under any cultivation for a series of years. I think the intense cultivation and the smaller products which bring the high prices are the things to be considered. I do not think anyone who irrigates in that district will be able to compete with people in other localities, who are growing without irrigation.
1711. It is for fodder and fruit and garden stuff? Yes; and such produce as millet, sorghum, and Kaffir corn.
1712. Especially what you can sow in drills? Yes; maize, too, grows beautifully up there.
1713. Would the experience you have gained at Pera be in favour of an irrigation farm at North Bourke? Certainly.
1714. You think that is a good position? It is a good position, but I should prefer to go further than North Bourke; I should go away from the river. I should not attempt to use the river water for irrigation. I should put down another bore at the junction of the Wanaaring and Hungerford Road, about 2 miles away.
1715. The advantage of the Bourke site is that the water only wants pumping up, and you have the river and the railway as get-aways for the produce? Yes; but under the bore system you have the water always running—always delivered on your ground without any annual charge for pumping.
1716. You have the interest on your outlay to pay, and we have to compare the two;—have you any knowledge of what a pump would cost to lift the water at Bourke? No; it would depend upon what the lift would be.
1717. It would not be less than 40 feet? I should think it would be about 35 feet.
1718. I would like to get a fair estimate of what is represented by the annual cost of lifting water 40 feet and the annual cost of a bore? I have not gone into that question.
1719. I suppose all your bores have been made with borrowed money? Yes.
1720. None of them have been paid for out of revenue? None.
1721. And at present the receipts do not anything like pay the interest on the loans? Not directly. The State must necessarily derive very large indirect benefits from the expenditure.
1722. The foreign bond-holder is not content with indirect benefits? As a direct return we do not get the interest on the money.
1723. No attempt has been made to apply the land revenue towards the cost of these improvements? No.
1724. Mr. McKinney has said that it would be decidedly cheaper to get water by pumping from the river;—do you know any officer in your Department who is equally prepared to prove that it will be more economical to get the water from the bore? No; I am the only officer there is in the Department dealing with the question.

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1725. I suppose if you were to put a bore down close to the Darling you would be pretty sure to get water? There is no question of that.
1726. You have not tested that, simply because you have not wanted the water for stock route purposes? Exactly.
1727. At what intervals do you put down the bores for the stock routes? At intervals of from 12 to 16 miles, and in some cases at intervals of 20 miles. The stock routes are not watered entirely by bores; they are watered by tanks and wells as well.
1728. Every one of these bores, I suppose, is on some station or other? Yes; they are all upon, or adjacent to, the stock route and have been taken out of either a pastoral lease or a homestead lease.
1729. Does the pastoral tenant get the benefit of the water which is not used by travelling stock? In some cases he does, but he pays for it. We close the bores; the waters are not always running.
1730. When you re-open the tap it will always flow afresh? Yes.
1731. You have never found that you have shut a bore down for good? No.
1732. There is no dirt or silt accumulating in the bore? Shale accumulates, but that is forced out with the flow. The shutting of the Pera bore caused this shale to drop back, and it filled up nearly 300 feet.
1733. *Mr. Watson.*] How did you get that shale out? With a sand-pump.
1734. *Dr. Garran.*] Then the squatter cannot take advantage of this water simply because it is on his run? No.
1735. If he wants water he has to pay for it the same price as anyone else? We do not charge him so much a head. Haddon Rigg station got the run of the water from the Tenandra bore for three weeks at £10 a week.
1736. If the squatter wanted water to water a lucerne paddock you would let him have the water by time? Yes.
1737. Every squatter who likes can have a lucerne paddock close to the bore? Yes. Where they have their own bores a great number of them have small cultivation paddocks.
1738. Have the squatters generally utilised the water? No; they take very little advantage of it from the Government bores.
1739. They do not show any enterprise in the matter? No. Where they have, we have allowed them to have the water, but they are very few.
1740. In all these dry seasons which we have had continuously, have not these men tried to grow lucerne or hay? I do not think so, except at their own places.
1741. Would it not pay them to do so? Yes.
1742. Why did they not do so? That is a matter to which I do not think they have given sufficient attention.
1743. Perhaps they do not know why, themselves? I do not think they do. It is an aspect of the question which they have never properly considered. I am rather laughed at for saying that it will pay to grow fodder for stock as an insurance against the dry times.
1744. Are not many of them carting hay from Bourke? They are spending large sums in that way. In this last season some stations have spent sufficient money on horse-feed to have laid down the most perfect irrigation farm you could possibly imagine. There is no question of their being able to grow fodder.
1745. The climate and soil will grow anything, with water? Yes.
1746. Even in a good season it will pay them to grow hay? Yes, and some of them do. They have very small paddocks.
1747. Will the natural grass make good hay up there? It just depends upon what grass you get. If you get Mitchell-grass or blue-grass it will make beautiful hay.
1748. Is it nearly all kangaroo-grass there? There is, in the Moree district. That is a wonderful grass country.
1749. Will the kangaroo-grass make good hay? I do not think kangaroo-grass or wiry-grass would.
1750. There is no artificial grass which grows up there at present? No. The kangaroo-grass is rather too wiry for making good hay, unless you get it cut very green, and salt it.
1751. It is a favourite grass with stock? Yes, especially with cattle.
1752. Suppose the Darling weir were locked, and an abundant supply of water were offered for all irrigation farms likely to be established on its banks, they would grow the produce for the district on the riverside farms as against the back country? Yes.
1753. If we have to look to irrigation in the future in that district, we must rather look to it along the river than in these back country bores? For a time we might.
1754. These bores will be merely isolated places like oases in the desert? Yes.
1755. Have you bores all the way to Tibooburra? Right along from Bourke.
1756. Is there any attempt at farming anywhere in the neighbourhood of Mount Browne or Tibooburra? Nothing.
1757. Is the soil good there? No; it is a little too stony for that class of work.
1758. There is no place between Pera and Tibooburra where there is any attempt at cultivation? There a little between Pera and the Warrego, and Mr. Davies, of Kerribree Creek, has a very good farm of his own.
1759. Are there any dams on the Warrego to store water? There are some dams, but I do not think you can consider them permanent.
1760. No attempt at irrigating there? None, except at Mr. McCaughey's place; but there, I fancy, they get short of water, and it is not what you would call a permanent thing. I do not know whether any effort has been made to increase the capacity of the dams, but when I was there last, about seven or eight years ago, I think they had about 40 acres under cultivation.
1761. Does the Warrego run in a well-defined channel, or does it spread itself over the country? On the other side of the border it has a very well defined channel. As it comes over on to our side it has a very small channel, but a fairly wide watercourse.
1762. In flood-time it would be a marsh? It covers a very large extent of country.
1763. *Vice-Chairman.*] You gave evidence before this Committee three years ago at a similar inquiry, and you stated that these bores were being worked then at a general loss, but you seemed to be hopeful then that things would improve? I did.

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1764. Has your hope been realised? I cannot say that it has; still I do not lose sight of the large benefit which the country has derived indirectly from the bores. Of course the direct revenue is not so good as one would like it to be.

1765. Do the people appreciate this advantage in an increasing degree? I think so.

1766. Are far larger and more numerous holdings taken up for the purpose of agriculture by the aid of artesian water as years go on? I do not think so.

1767. Is not that the chief test of its value? Yes; but you must remember that the expense of getting artesian water debars so many, and the Artesian Wells Act was designed rather to meet that condition, and help the people.

1768. But it has not done so? It has not had time yet. We have only two bores commenced under that Act; they are not completed. There are about thirty applications for bores under the Act being dealt with.

1769. With regard to artesian bores which are available for the purpose of assisting agriculturists, are they availed of to their full extent? No.

1770. If agriculture is so much facilitated as you say by the aid of artesian water, and people think they can make a do of it, why do they not do so? As I said three years ago, the people do not realise what it means to them. They agree with an abstract proposition that artesian water is a magnificent thing for them—that it saves them in a time of drought, and all that sort of thing; but there it ends. They have not had the experience of artesian water to induce them to take full advantage of it.

1771. Now, as a practical man, can you suggest any way in which the people can be induced to avail themselves of these advantages? Only by letting them see what we are actually doing, and what the results are, as we shall show them at Pera in the coming season. The first fruit will ripen there in this coming season.

1772. *Mr. Watson.*] You have had no returns for fruit, so far? None whatever.

1773. *Vice-Chairman.*] Your experience, in regard to artesian water, agrees exactly with the experience of Mr. McKinney in regard to river water which is made available by that same Act—that although the people have all the advantages of it, they do not seem to avail themselves of it? No. You have a population here who are used to stock-raising. The agricultural population is in an enormous minority. The people who are used to stock-raising lead comparatively a very lazy sort of life. Their work is not very hard, and they cannot understand the steady, patient labour which is required to bring to fruition any one of these enterprises. They have a poor conception of it.

1774. Is this the general experience through the country, that a man starts as a small farmer, and as he gets on, instead of extending his farming operations, he likes to buy a few sheep and live on them? Yes.

1775. I suppose that time, and an increase in population, are the only things which could remedy that? I look to an increased population to help us.

1776. Is all that land at the Pera bore taken up? The whole of the blocks are taken up.

1777. Have any persons abandoned their holdings at Pera? A young fellow named Dwyer went away simply because he had bad eyes. He has not abandoned his holding permanently. Time has been given to Bull and Dalton.

1778. Do the remaining men on the holdings get their living entirely by the results of their farming operations, or is it a mixed occupation which they follow? Some of them get their living absolutely by their farming, and others do a little outside work. Some of them do small contracts for us, such as clearing and that sort of thing. We prefer to give the contracts to settlers if they tender.

1779. Are there any instances where persons who have taken up 20 acres have cultivated the land and are now making a living on the holding? Yes, and doing well. Munro told our Examiner of Accounts that last season his gross return was over £200 from 20 acres. I tried to find out what Hersey had made, but he was very chary about saying what it was.

1780. What does Munro grow? Citrus fruits and stone fruits. He has 18 acres under cultivation, of which 7 acres are under fruit, and the rest under lucerne, green fodder crops, vegetables, melons, and pumpkins. He told me that he cleared £20 off a quarter of an acre patch with melons one season.

1781. Is his market chiefly a local one? Bourke and Cobar. When I was up there the other day, I saw a load of stuff which was being sent to Cobar by another settler named Stanbury.

1782. *Dr. Garran.*] Can a farmer at Pera send produce all the way to Cobar as against people who send produce from Dubbo? I understand so. I think they get a special rate from the Railway Commissioners.

1783. It has been stated in evidence that a great deal of fodder and other things have been sent to Bourke this year from Dubbo? There is no doubt that a great deal has been sent up.

1784. Yet, side by side with that, you get produce sent down from Bourke to Nyngan and Cobar? Yes.

1785. What sort of produce goes to Cobar? Vegetables.

1786. Any hay or fruit? No; they sell all their hay crop in Bourke when it is green.

1787. Have the people at Pera any advantage in growing vegetables over people at Dubbo and Narramine, who have a river flowing past their doors? I fancy they have, because it is not done to any extent at Narramine. It may be done at Dubbo, but then I think it is mostly done by Chisamen.

1788. *Mr. Watson.*] The people at Pera have remarkably cheaply-watered land? Yes.

1789. *Dr. Garran.*] The people at Dubbo would have to pay the ordinary free-selecting price for their land? Yes.

1790. But nothing for the water? No.

1791. They can put a pump on the side of the river, and pump up all the water they want? Yes.

1792. The carriage from Dubbo to Cobar, and from Pera to Cobar would be about the same? No; I fancy they get a special rate from Bourke. I do not know what the rate is; but I know that they can send a 6-ton lot very cheaply to Cobar.

1793. Would they not charge the same price on a 6-ton lot from Dubbo? I fancy the rates downwards are higher than the rates upwards. There is a very large market in Bourke. One man at Pera makes his living by taking milk and butter in every morning to Bourke. He feeds his cows on lucerne.

1794. What excites my curiosity is that, in fighting for the trade of Cobar, Pera people should be able to compete with Dubbo people? The orders go up, I understand, from Cobar to Pera.

1795. *Vice-Chairman.*] You charge £5 a year for 20 acres, or at the rate of 5s. an acre, including the water? Yes.

1796. What would the land be worth a year to the Crown without water? The rental would be nominal.

1797. Therefore you may say that the settlers are now paying for the water £5 a year? Yes. 1798.

1798. Mr. McKinney, in his prior evidence, stated in reply to Questions 560 and 563, that 5s. an acre would be a fair charge to make for a license to pump the water from the Darling to the farms; so that your arrangement to give them 20 acres at a rental of 5s. per acre per annum would be cheaper, because the man on the river would have to erect his own pumping plant? He would have to pump. If you take the price which they had to pay at Mildura for their land, and the annual charge they had there for pumping, and compare their results with the results you get from one of these bores, you will see that there is a great difference.

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1799. That is hardly a fair test, because the charges at Mildura were on an increasing scale? Owing to its being a speculative business, the charges were higher than the Government would be likely to charge. I do not know how it would compare with the Wentworth and the Hay irrigation scheme.

1800. Besides melons, what other products do they grow on these Pera farms? Broom millet is fairly productive; but they do not care to go on with it. We grew it for one season. I have just sold a ton and a half from the Moongulla bore for over £30 a ton, and that is the produce of an acre. The price of broom millet varies. It is very scarce now, because the American crop failed this year.

1801. *Mr. Watson.*] Was it unremunerative when it was grown at Pera? No; they got a return of from £9 to £15 an acre.

1802. It did not pay them to grow it? They did not care about it, as there is a lot of labour required in turning it down.

1803. *Vice-Chairman.*] As regards the growth of cabbages, potatoes, beans, and peas, we must recognise that the market will be a limited one as Pera is so far away from Sydney? Yes.

1804. It is of no use to start this system of irrigation for the purpose of establishing a few gardens to supply Bourke with vegetables? No.

1805. Do you mind stating what your own views are as to its being a real, producing industry for the benefit of the country generally? It is in the production of dried fruits and citrus fruits. For sultanas, currants, grapes of the raisin variety, oranges and lemons, there will be a permanent and steady market. When a start was made in America, twenty-eight years ago, to irrigate from artesian bores, the people were in practically the same condition and under the same disability as we are at the present time. With the permission of the Committee I will read an extract showing what was done in regard to Riverside, which is, I think, the best fruit ranch in Southern California. Colonel Hinton states:—

At that time the site of Riverside was occupied by an Indian village. Without artificial conservation and distribution of water, Riverside, like other prosperous settlements of San Bernardino County, would have had no real value for farm purposes. It would have taken 800 acres of its area to support a ranchman or hunter, and 25 to poorly feed one broad-horned steer. About 6,000 people now live with the greatest comfort, even luxuriously, upon 6,000 acres of land. Within the range of cultivated land in America there will be found no settlement more closely worked or subjected to more intensive farming, returning a larger result for labour, skill, and enterprise, than this cultivated area, 3,000 acres of which are under oranges, the trees varying in age from one to fifteen years. As at Fresno, the yield shows steady annual increase. In 1880, 1,480 car-loads of oranges and lemons were forwarded to market as the product of the 3,000 acres referred to. Taken at a value of 800 dollars per car-load, which is the official value given, the shipment gave a return of 1,184,000 dollars, and a net return of 395 dollars per acre. Since 1880, additions referred to later on, through the inception of the Gage system of artesian wells, have been made to the cultivated area, which, upon Riverside proper, is now some 12,000 acres, which supports a population of 8,000 souls. Besides the citrus fruits, the raisin grapes, the muscat of Alexandria, and the Gordo Blanco are largely cultivated, and the return given for 1891 for this product alone amounted to 700,000 dollars, while the annual average value of fruit of all descriptions shipped from Riverside is stated to be 2,200,000 dollars.

Of Fresno, which is really the centre of the raisin-grape industry in America, it says in this paper:—

In 1871, 500 emigrants from the East settled there and secured some 5,000 acres of land, which was divided into small vineyards for the cultivation of the raisin grape; the progress made has been phenomenal, and Fresno stands as one of the most prosperous settlements in California, and a striking example of what intense culture upon small areas means. The land originally cost 2.50 dollars per acre. The population within twenty years reached 100,000 souls, and Fresno city is to-day a well laid out town, with all modern improvements, of some 25,000 inhabitants, surrounded by an area of 20,000 acres of vineyards. The condition of this land at the time of the inception of the settlement is described as follows:—

“The entire area of which would be worthless except for occasional croppings of wheat and sparse feeding of cattle, without the system of irrigation in vogue.” The cultivation area is now stated to have a capital value of 30,000,000 dollars, and had it been sold twenty years ago for 1,000,000 dollars that would have been considered a high price. When once the vines commenced to bear in 1873, the return began to come in, and has increased yearly; in that year 6,000 boxes of raisins (20 lb. each) were shipped; in 1883 the yield was 140,000 boxes, or 2,800,000 lb.; in 1890, 900,000 boxes, or 18,000,000 lb.

The writer goes on to show the tremendous increase in land value which arose from the use of artesian water. When they started there, twenty-eight years ago, they were under just the same difficulties as we had in regard to the proper class of people. They had everything to learn. They had a long distance to transport their produce, and they were just as far from the railway as we are—further in fact. I do not suppose you could find two more prosperous places in America than Fresno and Riverside. The success of these places has given rise to a good many other colonies of the same nature, such as Lake View.

1806. These places are watered from the river? Twelve thousand acres of Riverside are watered by artesian wells. They are a group of thirty-seven wells, on about 700 acres of land, and the water is all flumed down to the land to be irrigated. That is known as the Gage system, and the success of that place started several others. There is one called the Whittier system, in the upper St. Gabriel Valley.

1807. Do you regard the Mildura settlement as a success? It is not a financial success; but from the orchardist point of view, it has been a success, I contend. When the defects in the channels and other disabilities are remedied it will be different.

1808. Is it still a going place? I have not heard to the contrary, and I think some of the men on the place are making money. Mr. Allen, the Fruit Expert in the Mines Department, can give direct evidence as to the Mildura settlement.

1809. Has the water from the Pera bore to be treated in any way before it can be used for watering purposes? No; the only thing we do is to aerate it.

1810. It cannot run from the flumes on to the ground without being aerated? It is not absolutely necessary to aerate the water. For a long period we used the water without aeration, but aeration is really a very great advantage.

1811. How is it sprayed? As it comes up through the bottom of the tank it is forced through an enormous rose which has 27,000 holes. In this way it is all broken up; it falls back into the tank, and then it goes down the flume.

1812. The agriculturist has to provide his own fluming? He provides everything on his own block.

1813. The men do not use fluming, but they make channels in the ground? Yes.

- J. W. Boulton. 1814. Is the Pera bore used to its ultimate limit? Yes; it was barely adequate for requirements this season.
- 14 June, 1899. 1815. It has never had to be shut down? Yes; it is shut down in the winter months for some time. The water is not always used; it is not always required. We have not been allowing the water to run to waste.
1816. Is the water from that bore used as well for watering stock? Yes. The water is run away in a pipe to the troughing.
1817. There is no quantity of the water kept in a dam? No; the trough holds about 3,000 gallons.
1818. Do the sheep drink out of the troughs? Yes.
1819. Does the water, if exposed, deteriorate or become decomposed? I do not think so; I have never noticed that it does. If it is put into an excavation in the ground there is great waste; sheep trample about in it, and the water gets filthy and they will not drink. The trough is 300 feet long at every public watering-place in the Colony.
1820. Do very large mobs of sheep come down by Pera? As many as 10,000 will come in a mob, but they do not take in more than 500 or 600, or perhaps 1,000 at a time. If we took them in a mob, half the sheep would not get a drink.
1821. You consider that one of the indirect benefits of these bores and watering-places is that it establishes new stock routes? No; I have not noticed that. It simply opens up the existing stock routes, and enables you to get your stock in and out in the season when otherwise you could not move them.
1822. As regards any stations near the Queensland border, would it not induce sheep to travel in the direction of the railway if the stock routes were well watered? The idea underlying all we have done was to encourage the traffic towards our rail centres. Take the roads running into Bourke from the border: I can remember the time—and it is within eight or nine years—when, to get a load out to the border, you would have to send a team with water to water the horses which were carrying your loading out.
1823. It would have the effect of making passable a route which was not passable? Yes. The road from Wanaaring to Milparinka is a road which for many years was absolutely impassable. It follows the telegraph line, and is in one straight line. When you get beyond the Urisino homestead I do not think you would find a drop of water on it which would wet a mosquito, until we put the bores down. I have travelled that road, and ridden 90 miles without a drink for myself and horse, and had to spend a night out too; but now we have the bores running right along the route. Last year the effect of this policy was to bring both stock and wool in towards Bourke, and for some 300 or 400 tons of station stores and loading to be sent out by that road. As the seasons come on, and the road gets better, we shall get all the more. The whole of that traffic would otherwise go down to Cockburn, in South Australia.
1824. What are the other indirect advantages of the water supply you spoke of a little while ago? Where you can draw the traffic to the railways it must increase the railway traffic to some extent, and it enables the pastoral people to get their wool in when they otherwise would not, perhaps, be able to get it in. I have known wool to be stuck on the Darling for four years. Since we opened up the roads that has all been done away with. There is no difficulty whatever in getting the produce in. There is no more living on weevilly flour on the back stations as we used to do when we had to get 20 tons in at a time.
1825. Do you think that water in sufficient quantities can be got by a system of boring to supply the agriculturists in that district for a long time to come without going to the river? I do not think you ought to put the two things on the same basis, because the river frontages, if the land is suitable for irrigation, must have an advantage by reason of the proximity of the waterway and the carriage, and they, for many years to come, must necessarily supply the back country. I do not look to see any enormous development for the irrigation of cereals or products of that description from the bores. What I think we shall see will be the nucleus of small settlements at the bores where they are accessible, and where, perhaps, an accommodation house will spring up, and so on. The place will grow insensibly. I do not think there is much fear of the boring in the actual back country competing with any large scheme on the river frontage for some years to come.
1826. People, you think, will be attracted to the river if they can get suitable soil for utilising water? I think they would, because the carriage is the thing which handicaps the people.
1827. Is it not rather a feature of this soil along the banks of the river that it is not so well suited for agricultural purposes as the soil away from the river? I could not tell you that exactly. With my experience of what we have done by irrigating from the bores, I should certainly give the preference to the black soil. You get far heavier crops out of the black soil than out of the other.
1828. *Mr. Watson.*] You are speaking now of black, loamy soil? Yes. I have some corn in my office which has come from one of those black-soil bore places, Woolabra, and I do not suppose you would see finer corn anywhere.
1829. It must be very loamy soil? Yes.
1830. *Vice-Chairman.*] How would you compare the two soils in the district? I would sooner have the red soil than the black clays of the river flats. There is no comparison to my mind between the red soil and the black, loamy soil.
1831. I suppose you recognise that in that part of the Colony the irrigation of large areas for promoting the growth of natural grass is out of the question? Yes. I do not think it is possible. In America they irrigate natural grass, but I fancy it must be under a system of cultivation. They have a thirty-mile canal in South California which is used entirely for the irrigation of natural grass.
1832. With regard to the large holdings in that district, do you find that irrigation for the purpose of an assistant to carrying on the station is on the increase? Unquestionably. At one station called Weilmoringle they had 40 acres under irrigation, and they have put in 100 acres additional, and at Belalie they had nearly 200 acres under cultivation. Every one who has a bore on his station is utilising the water to some extent for growing hay for horse-feed and lucerne for stud rams. With the permission of the Committee I will read a copy of the letter received from Mr. Mullen, the licensed surveyor, who did some levelling work for us at Pera:—

I have just returned to Bourke after a trip of eight weeks through my district. I feel I must draw your attention to the fact that the Pera Experimental Farm has been the means of giving a great start to irrigation works on large and small scales throughout the Bourke district. I have now more irrigation farms to design and lay out within 100 miles from Bourke than I can cope with this year, unless I give my whole attention to that business alone, and that I cannot do, as my hands are fairly full of Government work, which must be first attended to. About ten weeks ago I was engaged at Weilmoringle, adding to their present irrigation area of 40 acres; all this was under a very heavy wheat crop when



when I was there at work, and for two years running they have taken over 1,000 tons each year off this small area. Their water supply is a bore of one and three-quarter million gallons per diem. The scheme was designed and levelled by me some three years ago. It is now intended to increase the area to 100 acres, and I am engaged upon the plans for that scheme. They have carried their bore water for miles, north, east, south, and west, in drains, to water their sheep in many different paddocks. At Kerribree I have instructions from the lessees to lay out 40 miles of drains and an irrigation farm, and I hope to be able to tackle it this year. Nearly every station, and, where they have the means, many small holders, practically recognise the value of home-grown fodder in times of drought, and it is a pleasing relief to the eye to see the green patches on the banks of all the rivers in the districts of Bourke and Brewarrina, and nearly every station has its irrigated vegetable garden. It is only within the last four years that crops have been irrigated with bore water.

J. W.  
Boulton.  
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1833. *Mr. Shepherd.*] Do you experience much difficulty in shutting down the bores? There is no difficulty in doing it; but I do not like doing it.

1834. Has it not been found in some cases that the water bursts off at some distance? It is a risk.

1835. Cannot that difficulty be obviated by inserting a tube down to the solid rock? We do that. It is the pressure of the water which is eroding the rock, and the flow gets behind the casing. That is how we lose it.

1836. In France, I understand, they have the whole of the bores under thorough control? Yes; we have a valve at every bore which is put down for the Government, and we can shut it down; but I do not like it. When you consider what the surface pressure is, and just think for a moment how enormous the pressure must be down below, you will see that it is taking too many chances to shut it down.

1837. Has any attempt being made to irrigate the natural grass? No; not designedly. Where it has so happened that you have had to let the water flow, then the patch wherever the water has spread has been irrigated, and it has grown up wonderfully.

1838. What are considered the best natural grasses in the Bourke district? I think the Mitchell-grass and the blue-grass. A grass we used to know on the West Darling is the star-grass; I do not know what it is called in the Bourke district. I think they are the best fodder grasses you can get.

1839. Do the whole of these bores throw the water to the surface without any pumping? Yes; I think some of them shoot 80 feet high. It just depends upon the orifice you have and the pressure.

THURSDAY, 15 JUNE, 1899.

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (VICE-CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
The Hon. ANDREW GARRAN, LL.D.

WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

James William Boulton, Superintendent of Public Watering Places and Artesian Boring, Department of Mines and Agriculture, sworn, and further examined:—

1840. *Mr. Watson.*] The charge for water from the Pera bore is 5s. per acre per annum? Yes.

1841. What quantity of water is allowed to the men? They are allowed a miner's inch—that is, 22,000 gallons a day per block.

1842. What depth of water would it average per acre? It would be very considerable—perhaps 30 inches.

1843. Is that reckoned to be a fair quantity, or more, or less, than is usually given? It is the mean, you may say. The average quantity of water which is used per acre is a cubic foot—that is, 548,000 gallons. They reckon that 548,000 gallons a day is sufficient to irrigate 250 acres.

1844. It varies with the nature of the soil and the character of the crop? Yes.

1845. Five hundred and forty-eight thousand gallons per diem would irrigate 250 acres? Yes.

1846. That is the general average as far as your experience of irrigation has gone? Yes.

1847. And it might be taken as a fair thing? Yes. In India, on the Eastern Jumna canal, they allow 306 acres; on the Western Jumna canal, 240 acres; the Ganges canal, 232 acres; the Swat River canal 216 acres; and the Bari Doab canal, 227 acres; the Spanish canals, from 240 acres up to 2,200 acres; the French canals, from 140 acres up to 350 acres; the Egyptian canals about 350 acres; and the American canals, from 100 acres up to 500 acres.

1848. I daresay in a warm climate there would be a demand for a greater quantity of water, and the possibility of raising a greater quantity of water efficiently, because of the greater number of crops you could get off the land in a year? Exactly.

1849. To which country do you think our western land would more nearly approximate—to Egypt? I really could not say. In point of aridity there is no doubt it would. It would nearly approximate to the upper table-lands of South California as far as one can judge from a comparison of the analyses of soil—what they call the Mesa land. In Southern California I think the rainfall averages from 6 to 12 inches. I should think, perhaps, it was a drier country than ours.

1850. Where your experiments with irrigation patches have been attempted the rainfall has been greater than that? A little better. About Bourke I think it is 14 or 15 inches. I think Southern California would approximate to Bourke.

1851. What did you say was the allowance there? I have not got it definitely. It is given at from 100 to 500. The Pomona canal in South California gives 500, and the Cache-le-Poudre canal in Colorado gives 193.

1852. Will you state what the general, broad results of the Pera bore have been to the Government irrespective of the commercial side of the question? It has demonstrated without any question of a doubt the complete suitability of that western soil for citrus fruits—the orange, the lemon, and fruits of that class.

1853. Do apricots do well there? They do exceptionally well there.

1854. Are they in any way fibrous? The few that were on the trees last season were not allowed to mature. There is some reference made to this subject and the superiority of the western land for fruit-culture is pointed out in one of Mr. Coghlan's books. He has gone into the statistics of the question, and shows that the yield is very much better.

1855.

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1855. On whose data is that report founded? I could not tell you how that information has been derived.
1856. As I understand, the actual experiment at Pera has not been long enough in operation to allow of any proper results being arrived at? Not as far as fruit is concerned. Maize, cotton, sorghum, Kaffir corn, planter's friend, and broom millet have grown very luxuriantly. The plants which have been put in the nursery grow from pips—young apricots and all those things—advanced far and away ahead of the imported trees we put in.
1857. Is it certain that it is a healthy growth;—you may unduly stimulate a tree? I do not think so. They have not had any more attention than in the bulk of the orchards. I think anything which is matured in that climate from the seed will be far finer than anything you could bring from any other part and put in there.
1858. You have a practical orchardist in charge of that portion of the experiment? A very capable man.
1859. Does he entertain any doubt as to the quality and flavour of the fruits? No; he has the highest opinion of them.
1860. I suppose in the next few years he will be in a better position to give an opinion? Next year we expect to get our first harvest from the fruit-trees.
1861. It has been said it would pay people, given reasonable access to market, to give £1 an acre per annum for the use of the water alone;—do you think that would be an out-of-the-way charge, or too great a charge, to enable a man to make a profit? You would have to take into consideration the distance from market, and the rate you would have to pay for the transport of the produce.
1862. You know that the water-rate at Mildura is about £1 an acre? I know it is very high.
1863. And the settlers at Mildura are under the additional disability of having paid a very large amount for the freehold of the land, and of being a considerable distance from market? Yes.
1864. Do you think the Pera settlers would be as far from a big market as the Mildura settlers—that is, as regards accessibility to market? I think the Bourke people would be equally as favourably situated as the Mildura people, because if the navigation is improved you have that waterway of the Darling open to Adelaide for about 8s. to 10s. a ton.
1865. Eight shillings or 10s. a ton? The information I gave at the previous inquiry I got from Messrs. Rich & Co. I said in reply to Question No. 1303, by Mr. Black, "You could get water-carriage from Bourke to Adelaide for about 10s. a ton when the river is up." If the Committee wish, I will make inquiry again from Messrs. Rich & Co.
1866. You think the people at Bourke would not be in any worse position than the people at Mildura, so far as access to a general market is concerned? I do not think so. If you can send down a sufficient quantity you would get a very great concession, both from the railway and from the river steamers.
1867. In either case they would be within a reasonable distance of market for dried fruits and any products of that description? Yes.
1868. For fresh fruits the railway would be considerably preferable on account of the quick transit? Yes.
1869. Were the blocks at Pera submitted to competition, or were the rentals assessed beforehand? The rentals were assessed beforehand.
1870. You have no means of ascertaining what the value of the rentals was? No.
1871. Do you know if any settlers have since transferred at a premium on the Government price? I have no idea what the price was. Mr. E. C. Millen has transferred. I fancy some arrangement has been made of late.
1872. You do not know whether in the case of that transfer a premium was given? I have no idea.
1873. I wish to ascertain what would be the greatest rental we might expect for land, including proper water facilities? After these men have been resident for five years their rental is doubled under the provisions of the Act.
1874. They are under similar conditions to the homestead selectors? Exactly; they are homestead selectors.
1875. And the rental is 10s. an acre after five years? Yes.
1876. Have you had any experience in the Department of the erection of weirs over creeks in that country? No; of course we have done ordinary dams for the public watering-places.
1877. Of what description is the dam? It is an excavation and a dam combined.
1878. On the creeks? On the smaller watercourses.
1879. Not on the larger ones? No.
1880. I suppose, in each case, you have provided by-washes? Yes, unless there is a natural by-wash available; we prefer to have a natural by-wash to cutting one.
1881. You would see that there was one, either artificial or natural? Yes.
1882. Would you care to offer an opinion on the effect which a weir has on the possible siting up of the river? No; it is trenching rather on professional ground.
1883. I thought that during your residence in the west you might have had some experience of the Darling and other large rivers? No. My experience of the rapid-running creeks is that it is better to leave them alone. For many years I was manager for Messrs. Quin, Currie, and Company, and the property, which comprised 700,000 acres, had running through it one of the largest watercourses in that part of the Colony. I suppose we put 100,000 or 120,000 yards of dams on that Bunker Creek, and to-day there is not one of them worth a snap of the finger; they have simply filled up.
1884. *Dr. Garrun.*] What sort of soil is it? It is a red, gravelly soil; it is rather a hard soil.
1885. Is it in any way similar to the soil on the banks of the Darling? No; it is quite a different class of soil; it is a hard, red clay—it is Pleistocene deposit—pebbles and everything mixed up together.
1886. Do you think that would be more likely to be carried down than a finer silt, held almost in solution by the waters of a bigger river? I should think a creek such as the Bunker Creek, a rapid-running creek, in flood would be far more liable to silt, because it carries the stuff such a distance.
1887. The evidence is that the velocity of the Darling, in a fairly large flood, does not exceed more than 2·8 miles an hour? I should not fear much in the matter of silt there, unless, perhaps, there were a permanent obstruction, and then it might gather silt.
1888. Would that term apply to a weir? Not to such a weir as they have there at present.
1889. With banks 40 feet high, and a fixed weir to the extent of 10 to 13 feet, do you think that would offer such an obstruction as would lead to a large deposit of silt? I do not think you would find that it would be serious, because the river does not carry, even in flood, such a body of silt as you see coming down

down in the smaller creeks. When it is in flood, there is a great settlement of stuff on the bank. You can see a film on the banks after the flood has gone down; it is not exactly of the nature of silt; it is more of a clay deposit.

J. W.  
Boulton.

15 June, 1899.

1890. You do not think that there would be much trouble from that source? I should not anticipate much trouble from it.

1891. *Mr. Dick.*] Can you state the cost of supplying the water per acre from the Pera bore? The cost of supplying the water comes to about 5s. 1d. an acre per annum. It is hardly fair to consider a bore which was put down originally for stock purposes, as a bore purely for irrigation. Probably if we were to provide a bore for irrigation solely and wholly, we should choose a position where the boring would be shallower, and where, perhaps, we should get a larger volume of water. Take, for instance, such a place as Tenandra. The depth of the bore is between 800 and 1,000 feet, and we get over 1,000,000 gallons a day at a very low cost. If you can get these conditions, then, of course, the cost of supplying water per acre is very much lessened. Taking the whole of our bores, I think Colonel Home worked out the cost of supplying water to the land they would serve at about 8s. 5d. per acre.

1892. That is the failures with the successes? Yes.

1893. What are the elements in your calculation that the water from the Pera bore costs 5s. 1d. per acre? I simply take the interest on the capital cost of the bore at 5 per cent. It costs £1,487, and the interest on that sum, at 5 per cent., is £70 a year. The bore gives a flow of  $1\frac{1}{16}$  cubic feet per second, which is equal to 275 acres, so that it comes to about 5s. 1d. per acre.

1894. Does that include attendance on the bore? No; it simply includes the interest on the cost of the bore.

1895. Does that bore require much attending? We have to have a man there constantly.

1896. How much per acre does his salary represent? He gets £100 a year. I am not giving you the cost of the fluming, and buildings. I am simply giving the interest on the cost of the bore.

1897. You do not regard that as a fair sample to take of the effect of an irrigation scheme supplied by water from bores? No. We could work out a scheme which would be far less expensive if we went into the Warren district, where the boring is shallow and the soil is better, and where it is nearer the market.

1898. Is the Pera bore what you call a small bore? It is a medium bore.

1899. Was it put down simply to water stock? Yes.

1900. The irrigation scheme was an after-thought? It was entirely an after-thought.

1901. If at Warren a man had 500 acres of irrigable land, do you think it would pay him to put down a bore and irrigate his land? There is no doubt about it. Buttabone station and Haddon Rigg have done that. Haddon Rigg is now putting down its No. 2 bore. Buttabone has completed two, and intends to put down two more. They get splendid flows of about 1,000,000 gallons a day at about 780 feet.

1902. Do you know whether they have any intention of irrigating? I understand from Mr. Hill that he has; I think they have the land under plough now.

1903. Do you know of any case where the squatter has, as a speculation, put down a bore and leased the land around? No; they want it themselves too badly.

1904. You think that under more favourable circumstances as regards irrigation, the charge of 5s. per acre may be materially reduced? I think so. Of course, the cost depends to a large extent on the volume of water which a bore is yielding, and the depth you go down.

1905. Mr. McKinney has stated that it would cost about £109 per annum for a 40-foot pump lift to deliver 1 cubic foot per second. Do you think you could get 1 cubic foot per second in a bore situated in the western district at a lower, equal, or higher price? I think you could get it at a lower price.

1906. You think the expense of maintaining the pump and plant would be higher than the interest on the cost of constructing and maintaining a bore? I think so; because you must have a skilled man and incur a large expense in firewood annually with a pump which is quite absent in the case of a bore.

1907. You recognise that in Mr. McKinney's statement, they go on the assumption that the water is there conserved by locks of some kind for their purposes, and that the estimate of £109 does not include any part of the cost of the weirs or of conserving the water? Quite so.

1908. He says, in one portion of his evidence, that it would cost from 10s. to 12s. an acre to supply water from the Darling; but you think that it may be done, under favourable conditions, or even under ordinary conditions, with a bore, for less than 5s. an acre? Yes.

1909. Do you think there would be any possibility of successfully irrigating land from conserved water in the river at any distance from its banks—that is, successfully from a financial point of view? It would depend upon the expense you went to for your channels. Probably you would be able to carry water out a very long way from the river; but whether you could do it successfully from a financial point of view is a question I have not gone into. The great trouble they had at Mildura was with the state of the channels.

1910. From your knowledge of the soil there, do you think an ordinary drain would suffice to carry the water any distance? I think it would, so long as you keep on the black soil; but when you get into the red soil it is no use to you for drains. Colonel Home, when he visited Pera, said the soil was useless for the purpose. We had found that out previously to his visit.

1911. When a drain reaches the red soil it would want lining in some shape or form? Yes.

1912. Is the soil at Mildura much superior to that at Pera? No; at Mildura I think it is mostly mallee land, which is of a lighter character than the Pera soil. It is lighter in colour, and lighter in substance; there is not so much clay in it.

1913. *Dr. Garran.*] Is it somewhat like the land near Bourke? No. It is a peculiar land which you see in this mallee country.

1914. Is the soil at Mildura lighter and thinner than the soil close to the Darling River? Very much. On the eastern bank of the river they have black soil out for about 13 miles, and on the northern side the red soil almost comes into the river.

1915. Is that block near Bourke which we spoke of red soil? Yes.

1916. Mildura is not at all red soil? Mildura is of the nature of red soil; it is a sandy soil, and lighter in colour.

1917. Is it alluvial deposit? Yes; but more of a sandy nature.

1918. Which has been brought down by the river at different times? I should hardly think so; there is such an enormous stretch of it on both sides of the river.

- J. W. Boultbee.  
15 June, 1899.
1919. Is it similar to that scrub through which the railway goes from Melbourne to Adelaide? It is very much of the same character.
1920. With that stunted growth in it? Yes.
1921. You say you do not think it is alluvial brought down by the river? No.
1922. The river floods do not at all improve it in any way? I do not think so.
1923. It is no better than the land the railway goes through? I do not think so.
1924. It simply has the advantage of water? That is all. I have never visited Mildura, and therefore I am only speaking from hearsay.
1925. *Mr. Dick.*] Can you state the cost of the Euroka bore, and the cost of delivering a cubic foot of water per second? The bore is 1,543 feet deep; it cost £2,428; and the flow is put down approximately at 3,000,000 gallons. The flow would be a little over 5 cubic feet per second.
1926. Taking the interest on the capital cost at 5 per cent., you have a flow of 5 cubic feet per second at Euroka for about £120 per annum as against a flow of  $1\frac{1}{2}$  cubic foot per second at Pera for £70 per annum? Yes.
1927. Had you such a bore at Pera as you have at Euroka you would be able to irrigate nearly five times as large an area and at a far smaller cost? At a less cost.
1928. Will you be able to put down many such bores as the Euroka in that dry district? You could pick places where you would get large flows I think, still it is very hard to say. For instance, at the Lilah Springs station they have a flow which is put down at about 2,000,000 gallons a day. Yet, on another part of that station, and not very far away, they have another bore down for a good many hundred feet deeper which gives a flow of only about 70,000 gallons a day.
1929. Is the land around Euroka fit for irrigation? It is black soil, with little chocolate ridges in it.
1930. Would that be suitable for irrigation? We are intending to do that; the caretaker is doing a little at it already. We have got in a few fruit-trees—oranges, lemons, peaches, apricots, apples, nectarines, cherries, prunes, plums, gordo blanco vines, and sultanas.
1931. About how many acres do you think you can irrigate with that flow of water—1,500 acres? A cubic foot is equal to 250 acres, so that it would be about 1,200 acres.
1932. Practically at a capital cost of £2 per acre? Yes.
1933. *Mr. Shepherd.*] Have you brought any return showing the yield of the various crops per acre? I have brought the following statement:—

*Results of experiments, Pera Bore.*

- Millet.*—Yielded 17 cwt. threshed fibre to the acre; yield of seed large, and sold in Bourke for 3s. 3d. per bushel. Controller-General of Stores reported that standard sample of millet was superior to the average millet found in open market, and that brooms manufactured therefrom were more valuable in every respect, the millet being of good colour, free from seed, and tough in fibre.
- Lucerne.*—Yielded 1 ton to acre for each cutting, and found ready sale in Bourke at £4 per ton.
- Cotton.*—Has been grown of good marketable value. Everything in favour of this product—climate, soil, water, and practically an unlimited market. Five varieties tested.
- Wheat.*— $3\frac{1}{2}$  acres unirrigated yielded 1 ton per acre;  $3\frac{1}{2}$  acres irrigated yielded over 2 tons per acre, allowing for waste. Both plots grown under same conditions on virgin soil, and with exception of irrigation, received similar attention.
- Kaffir corn and tares.*—Yielded large crops. Sorghum saccharatum, one cutting yielded 2 tons 16 cwt. 76 lb. from  $\frac{1}{2}$  acre, or at rate of 5 tons 13 cwt. 40 lb. per acre.
- Cow-pea.*—Makes luxuriant growth.
- Potatoes.*—Yielded 4 tons 2 cwt. per acre (varieties tested Cambridge Kidney and Wyatt's Early Ashleaf).
- Maize.*—Twenty-six distinct varieties tested with good results.
- Sugar beets.*—Average weight 2 lb.  $3\frac{1}{2}$  oz. Average percentage of cane sugar in piece, 11.33 per cent. Specimens submitted for analysis rather large for acceptance.
- Tobacco.*—Varieties tested—White burley, Big Frederick Crescent, Orinoco, Virginia, and Kirbasina; no report as to results to hand.
- Melons, Pumpkins, Squashes, Marrows, &c.*—With very good results.
- Orchard.*—Fruit-trees have made excellent growth. Citrus as well as most of the deciduous trees have done well. Experiments are being carried out mostly with a view to determining the best fruit that can be grown in district for drying and preserving purposes.
- Bourke Show, 1898.*—National prizes were awarded to four of the settlers for produce, &c., while a prize was awarded to another settler for twenty varieties of vegetables.
- Ensilage.*—First made in district at Pera, was an excellent sample and highly commended, consisting of Kaffir corn, maize, lucerne, reed dhouri, and early amber cane. Better results are, however, anticipated from an improved silt.
1934. *Mr. Watson.*] Did he report what was the rainfall during the time the unirrigated wheat was in? 1.84.
1935. Is that above or below the average for that season of the year? I should think it was above the mean.
1936. *Mr. Shepherd.*] Would that yield of  $4\frac{1}{2}$  tons of lucerne hay from 5 acres be for the year? No, for the one cutting. A local produce merchant offered me £4 a ton for the hay, but, of course, we use it for our own stock. We turned in 700 sheep on those 10 acres of lucerne for the benefit of the manure.
1937. Is it shown in your reports how often the lucerne was cut during the year? No. This report I read is the report after the first cutting.
1938. Has there been any attempt at making ensilage at the Pera bore? There was an attempt made, but it was very badly carried out by the previous manager; it was surface ensilage—compression. He did not attend to it properly, and it got spoiled. The stuff he put in was the amber cane and the sorghum; he had not enough pressure.
1939. *Mr. Watson.*] I think you stated that you thought it would be possible by means of bores to get water for irrigation purposes at less than £109 per cubic foot per annum? Yes.
1940. I also understood you to say that the Pera bore delivered  $1\frac{1}{2}$ th cubic foot per second, and that although the interest on the capital cost was only £70, yet when the wages were added the cost came up to £174 per year? Yes.
1941. It costs £174 to deliver  $1\frac{1}{2}$ th cubic foot per second? Yes; but, as I said, I would not take that place particularly as an example of what can be done financially.
1942. You think that better results can be obtained? There is no question about that.
1943. *Vice-Chairman.*] Have you had an opportunity of comparing the difference between crops produced on land naturally watered and crops produced on land irrigated, quite irrespective of locality? I have not.
1944. You could not say which land is the more productive? The irrigated land would give the greater yield, but I have not seen the two growing side by side.

1945. I am not speaking of two blocks which are side by side;—take a good agricultural district such as the Camden district with natural rainfall and good soil, and take the good soil up in the Bourke district with facilities for irrigation, which soil would yield the more productive crop? I think the irrigated land would, but whether the farmers would get the same return from it up there as a farmer at Camden would is another question.

J. W.  
Boutbee.  
15 June, 1899.

1946. Is not the sun a great factor? Yes; it ripens.

1947. A hot sun with a good water supply would be a great forcer? Yes.

1948. Would the soil up there be a lasting soil if used for crops, or would it impoverish? It would impoverish; it would have to be rested and manured. It is a peculiar soil. It is almost devoid of what chemists call humus—that is mould, and to supply that deficiency we grew these luxuriant, rank-growing, green crops and ploughed them in.

1949. *Mr. Watson.*] Were there any trees growing on the land originally? Yes; it was a gidgee forest.

1950. *Vice-Chairman.*] Can you supply an analysis of the water from the Pera bore? Yes, I will do so.

1951. Are any of these ingredients present to a sufficient extent to prejudicially affect the vegetation? If the carbonates of soda exceed 35 grains per gallon, they would want to be used with a very great deal of caution. The Pera water is just on the margin of the limit of safety put by the chemists who are very cautious in expressing an opinion.

1952. Have the crops suffered there at all? No; there is no sign of any suffering.

1953. You are quite sure of that? Quite sure.

1954. I have often heard it stated that where the water from these bores is used for irrigating the amount of salt in the water is very prejudicial to the vegetation, and that sometimes you see almost a coating of salt over the surface of the ground? Yes.

1955. Why does that exist? You can see that surrounding almost any bore where the land is not properly looked after and cultivated, and where evaporation takes place. A good deal depends upon whether there are any of the alkali salts in the soil, whether the soil is too much saturated with water and the salts are drawn to the surface by evaporation. The American soils have a very much larger percentage of alkaline carbonates than ours. Ours taken right through are almost free from alkaline carbonates. In America they have the difficulty to deal with which you have suggested, and they get over it by a mixture of lime which neutralises the effect of the alkali, and it can also be avoided by a proper system of tillage and drainage. Where we have so little of these alkaline carbonates in the soil, we have quite a different condition to meet from what they have in America, because it is one thing to bring the salts to the surface by evaporation and another thing to deposit them by filtration.

1956. If any injury does happen to these farms from the salts in the water it is due, you think, to an imperfect system of farming? Yes; unquestionably.

1957. Do you know of any holdings which have been injured in that way and which have become failures? Yes; I have seen Mr. Tobin's bore at Lila. They had a large amount of land under cultivation close to the bore, and they made no attempt at cultivation. They put a crop in and let the land dry and bake like a brick, and then they wondered at the crops dying. That was after two or three seasons. Of course they moved further round and opened fresh ground and got the same beautiful crops which they had got at the start. The failure is simply due to want of cultivation and no system of drainage at all. The water is spread over the land, it is simply allowed to lie and evaporate, concentrating all the salts it contains just on the surface.

1958. Does the salt in the water operate more prejudicially in the case of red soil than in the case of black soil? I should think it would be more prejudicial in the case of black soil; it is a stiffer soil.

1959. It is apt to cake and get a smooth surface? Yes; the red soil is better for irrigation because it affords a better get away. If you do not go in for artificial drainage it is a looser soil than the black soil.

1960. You are speaking about the advantage of irrigation over naturally-watered land;—is that largely due to the water being supplied at regular intervals and at the proper time? Yes; at the time when the plant most requires it.

1961. Looking at the question generally, and seeing that irrigation involves a considerable extra expense to the farmer, do you think the increased return in the way of crops would be sufficient to compensate him for the increased expenditure? I think the way in which the money would be made, would be by the growing of these crops which are high in value, and would require intense cultivation. I do not say that it would pay you to grow wheat against farmers near Sydney; but I say it would pay the pastoralists on the river bank that suffer these frightful losses periodically, if they would ensure themselves by irrigating and storing fodder against times of drought. The money which has been spent this season in buying lucerne to feed stock is something fabulous.

1962. Given a farm within easy distance of Sydney, and with good soil, and a fair average rainfall, and given a farm at Bourke with good soil, and the cost of the water for irrigation, and the extra freight to the centre of the population;—do you think the one farmer could compete with the other? I think the advantage would be with the farmer on the irrigated land.

1963. I mean could the one compete with the other in the growth of fruits and such products? Unquestionably. At Bourke the farmer is in a climate where he can grow almost anything, and he is free from disease; the fruit is absolutely clean.

1964. With a supply of water there would be nothing to damage your crops? No.

1965. You would have a kind of forcing-house? Yes.

1966. Would not the heat at times be injurious? The hot winds do cause the leaves to wither, but it does not happen very often that such a thing occurs. We had one at Pera some time ago which did a lot of harm.

1967. As regards the market for dried fruits, have you any information as to the amount of imports into the Colony? For the year 1894, the imports of fruits, vegetables, currants, raisins, preserves, pickles, salad oil, linseed oil, onions, and such things, amounted to £727,270, and the total value of dried fruit, currants, raisins, and jams, handled by one firm in Bourke in that year was £3,145.

1968. Does the American farmer get any special facilities in the way of reduced railway freights? I think the railway freights are lower there than here. You can get a bushel of wheat carried from San Francisco to New York, and a fast freight guaranteed for 5½d., whereas it costs 7½d. to bring a bushel of wheat from Bourke to Sydney. In America there is great competition, and the rates are cut enormously. I do not suppose they are carrying at a profit at that rate.

1969.

- J. W. Boulton. 1969. *Mr. Watson.*] Is your information of a recent date? I am speaking of the rate which was charged four years ago.
- 15 June, 1899. 1970. *Vice-Chairman.*] But seeing that the Government make a specially low rate for the carriage of wheat from newly-established wheat centres, I suppose you recognise that it would also be fair for them to do something of the same kind in regard to fruit? They will do that; in fact they have done it for us in the case of some stuff which was brought down from Bourke.
1971. Can you state the quantity of water which is available from the bores in use, and the quantity of water which the public avail themselves of? I can give the quantity of water at each bore, but what proportion of that quantity has not been properly utilised, I cannot say.
1972. Can you state generally whether the water available from these bores is being fully asked for by the public? In some districts it has been; in others it has not. In the Moree district this season the bore water has been simply the salvation of the country. I believe there were 60,000 sheep watered at one bore.
1973. Moree is an instance where the advantages of artesian water have been supreme? There is no question about that; it is very bad country for surface water. There are no waterholes and no other sources of supply available. One lot of settlers has been absolutely dependent on the Dolgelly bore for watering their stock. We did not make any charge because it was such a terrible time.
1974. Independent of the Pera bore, where the Government have started an object lesson for the settlers, are there any places where the bores have been availed of for agricultural purposes to any extent? Yes, and the bores are mentioned in the return I read yesterday.

Cecil West Darley, Engineer-in-Chief for Public Works, Department of Public Works, sworn, and further examined:—

- C. W. Darley. 1975. *Vice-Chairman.*] I think you promised to supply some information in regard to the cost of raising the height of the weirs, and also the details of the expenditure on the scheme? I was asked to supply a detailed statement, similar to that supplied in regard to locks and weirs between Bourke and Brewarrina, as published on page 6 of the Committee's Report on that proposal, and the cost of increasing the height of the weirs and other works connected with them 1 foot, 2 feet, and 3 feet.
- 15 June, 1899. 1976. Have you prepared a detailed statement of the cost, made out on the same basis as the cost of the weirs between Bourke and Brewarrina? Yes; it is as follows:—

TOTAL Estimate of Cost of seventeen Locks and Weirs on Darling River, £530,000.

Excavation in soft material	...	...	...	...	...	...	...	...	...	£36,375
"    rock	...	...	...	...	...	...	...	...	...	13,275
Concrete	...	...	...	...	...	...	...	...	...	329,090
Iron gates for locks (complete)	...	...	...	...	...	...	...	...	...	17,840
Timber in sheet piling	...	...	...	...	...	...	...	...	...	9,350
"    fenders, &c.	...	...	...	...	...	...	...	...	...	1,870
Pitching	...	...	...	...	...	...	...	...	...	17,850
Winches at lock gates	...	...	...	...	...	...	...	...	...	850
Coffer-dams and pumping	...	...	...	...	...	...	...	...	...	30,000
Lock-keepers' cottages	...	...	...	...	...	...	...	...	...	5,100
Telephone lines and instruments	...	...	...	...	...	...	...	...	...	6,000
Maintenance steamer, fitted with sand-pump	...	...	...	...	...	...	...	...	...	10,000
Wharfs and cranes	...	...	...	...	...	...	...	...	...	10,000
										£487,100
Supervision and contingencies	...	...	...	...	...	...	...	...	...	42,900
										£530,000

1977. Have you prepared an estimate of the cost of raising the height of the works by 1 foot? It is as follows:—

TOTAL Estimate of Cost of seventeen Locks and Weirs on Darling River.—1 foot of water available for Irrigation purposes.

Excavation in soft material	...	...	...	...	...	...	...	...	...	£38,011
"    rock	...	...	...	...	...	...	...	...	...	13,606
Concrete	...	...	...	...	...	...	...	...	...	344,985
Iron gates for locks (complete)	...	...	...	...	...	...	...	...	...	17,760
Timber in sheet piling	...	...	...	...	...	...	...	...	...	9,350
"    fenders, &c.	...	...	...	...	...	...	...	...	...	1,870
Pitching	...	...	...	...	...	...	...	...	...	18,218
Winches at gates	...	...	...	...	...	...	...	...	...	850
Coffer-dams and pumping	...	...	...	...	...	...	...	...	...	30,000
Lock-keepers' cottages	...	...	...	...	...	...	...	...	...	5,100
Telephone line and instruments	...	...	...	...	...	...	...	...	...	6,000
Maintenance steamer fitted with sand-pump	...	...	...	...	...	...	...	...	...	10,000
Wharfs and cranes	...	...	...	...	...	...	...	...	...	10,000
										£505,750
Supervision and contingencies, 8·8 per cent.	...	...	...	...	...	...	...	...	...	44,506
										£550,256
Total increased cost for 1 foot	...	...	...	...	...	...	...	...	...	£20,256
Increase per Lock and Weir	...	...	...	...	...	...	...	...	...	1,191 10s. 7d.

1978. Have you prepared an estimate of the cost of raising the height of the works by 2 feet? It is as C. W. Darley follows:—

TOTAL Estimate of Cost of Seventeen Locks and Weirs, on Darling River.—2 feet of water available <sup>15 June, 1899.</sup> for Irrigation purposes:—

Excavation in soft material	...	...	...	...	...	...	...	£39,721
"    rock	...	...	...	...	...	...	...	13,946
Concrete	...	...	...	...	...	...	...	362,055
Iron gates at locks (complete)	...	...	...	...	...	...	...	18,180
Timber in sheet piling	...	...	...	...	...	...	...	9,350
"    fenders, &c	...	...	...	...	...	...	...	1,870
Pitching	...	...	...	...	...	...	...	18,585
Winches at gates	...	...	...	...	...	...	...	850
Coffer-dams and pumping	...	...	...	...	...	...	...	30,000
Lock-keepers' cottages	...	...	...	...	...	...	...	5,100
Telephone line and instruments	...	...	...	...	...	...	...	6,000
Maintenance steamer, fitted with sand-pump	...	...	...	...	...	...	...	10,000
Wharfs and cranes	...	...	...	...	...	...	...	10,000
								£525,657
Supervision and contingencies, 8·8 per cent.	...	...	...	...	...	...	...	46,257
								Grand total ... .. £571,914
								Total increase for 2 feet ... .. £41,914
								Increase per Lock and Weir ... .. 2,465 10s. 7d.

1979. Have you prepared an estimate of the cost of raising the height of the works by 3 feet? It is as follows:—

TOTAL Estimate of Cost of Seventeen Locks and Weirs, on Darling River.—3 feet of water available for Irrigation purposes:—

Excavation in soft material	...	...	...	...	...	...	...	£41,508
"    rock	...	...	...	...	...	...	...	14,294
Concrete	...	...	...	...	...	...	...	382,398
Iron gates at locks (complete)	...	...	...	...	...	...	...	19,200
Timber in sheet piling	...	...	...	...	...	...	...	9,350
"    fenders	...	...	...	...	...	...	...	1,870
Pitching	...	...	...	...	...	...	...	19,514
Winches at gates	...	...	...	...	...	...	...	850
Coffer-dams and pumping	...	...	...	...	...	...	...	30,000
Lock-keepers' cottages	...	...	...	...	...	...	...	5,100
Telephone line and instruments	...	...	...	...	...	...	...	6,000
Maintenance steamer, fitted with sand-pump	...	...	...	...	...	...	...	10,000
Wharfs and cranes	...	...	...	...	...	...	...	10,000
								£550,084
Supervision and contingencies, 8·8 per cent.	...	...	...	...	...	...	...	48,407
								Grand total ... .. £598,491
								Total increased cost for 3 feet ... .. £68,491
								Increase per Lock and Weir ... .. 4,028 17s. 7d.

I have given this information to the Committee, but I do not recommend that the height of the weir should be increased by more than 1 foot. If you increase the height of the weirs, the floods will go all over the country and possibly do damage. That question I considered very carefully in fixing the height of the locks originally. I could not possibly recommend increasing them by more than 1 foot. I should be very sorry to recommend that they be increased by 2 feet.

1980. *Mr. Watson.*] At your previous examination this evidence was given to the Committee?

168. Assuming that weirs from 7 feet to 10 feet high are sufficient for the purposes of navigation, to what further height would it be safe to carry them? Two or three feet more. There is no reason why you should not make all the weirs 10-foot lifts, if necessary.

169. Would that increase the cost proportionately? It would certainly increase it.

170. Would it to any material extent increase the liability to flood of the people above the level? No.

I think I must have misunderstood the question. There are some of the locks which might be raised, but the 10-foot ones could not be raised. Those which are 6 feet high might be raised, but the 10-foot ones could not be raised 3 feet safely.

1981. In answer to the next question, you proceeded to explain as follows:—"It would not appreciably effect the floods. When the water rose to such a height as to drown the weir, the flood-level would still be within the banks. So long as you drown your weir before the water is at the top of the banks, you are perfectly safe from doing harm." The evidence is, I understand, that practically all along the line the banks are between 30 feet and 40 feet high, so that you drown a 13-foot weir long before you reach that height? Of course.

1982. Your evidence is to the effect that as long as you drown your weir before the water is at the top of the banks, the appreciable difference in the flood-level would not be very great? I have been looking into the matter again, and I do not think it would be safe to raise the 10-foot weirs to 13 feet.

1983. Can you state how many of the weirs have a 10-foot lift, and how many a 6-foot, so as to ascertain how many of them it would be possible to raise in height? There are 2 10-foot weirs, 5 9-foot weirs, 4 8-foot weirs, 4 7-foot weirs, and 2 6-foot weirs.

1984. You advise that it would not be wise to go beyond a height of 10 feet? It would not be wise to put more than a foot on a 10-foot weir.

C. W. Darley. 1985 You do not think it would be wise to go above 11 feet? I do not think it would.

15 June, 1899. 1986. Suppose you had an 11-foot weir, and that you proposed to increase its height by 2 feet, with a bank averaging 35 feet high, would the additional 2 feet on the weir mean an appreciable raising of the flood-level above the bank; because once you get above your bank the water spreads over an enormous area? Yes; I do not suppose you would raise it seriously above the bank, but I think it would be enough to bring in claims; it would always lead to trouble.

1987. About how wide apart are the banks where a weir is to be placed? The width varies between 200 feet and 300 feet.

1988. The amount of water which would be raised would be a multiple of, say, 250 feet by 2 feet by the length of the lock? The pool held back by the weir.

1989. That would be the amount of water which, in the case of a very high flood, would be extra distributed over the land above the banks? No; it might be a very great width over the whole country.

1990. If the weirs are raised 2 feet, so as to bring them up to a height of 13 feet, the extra amount of water which would thus be forced, in the case of a very high flood, over the banks would be just so much as would be contained by the weirs being 2 feet higher than they were, would it not? No; it might be a very large quantity. You are checking back the whole flow of the river; you are checking the whole flood. It is a very complex question to answer.

1991. It means that your flood level commences slightly earlier than it otherwise would do, does it not? The river is not so deep in a great many places. There are many places where the banks are not more than 15 or 18 feet deep. It decreases as you go down the river. Down at Wentworth, I do not think the banks are more than 15 feet high.

1992. *Dr. Garran.*] Are the banks lower where these anabranches take off? There is a low gulch there.

1993. Is there a cut through the bank where it takes off? There is.

1994. At what height above the top of your sill do these anabranches go off? The only important one we have to deal with is Talyawalka, but I have not seen that. I know that when the river rises a certain height the water begins to flow off.

1995. How high does it rise before it runs into the anabranch? I am not quite sure.

1996. You propose to raise your dams only high enough to secure your navigation? That is all I have dealt with at present.

1997. These questions which are asked you now are due to the fact that it has been suggested that if you raise the dam a little higher than you want to do, the extra water will be available for irrigation? Yes.

1998. The finance of the question will depend upon whether the extra quantity of water so stored could be sold at a price to pay for the cost of the storage; say the water is banked up 20 miles and we raise a weir by 1 foot, we raise the water in that artificial canal by 1 foot all along its length at a cost of £1,100;—if we could sell the water to pay good interest on that £1,100 it would be a good financial operation? I think the weir could be raised from 1 foot to 2 feet.

1999. Suppose we can raise the weir 1 foot, and make it pay by selling the water, it would not injure your canal at all? Instead of raising all, I should say a better scheme would be to store water higher up the river.

2000. In lateral lakes? At the Brewarrina Rocks.

2001. We want the water where we can do irrigation? You would have it then to let down to replenish the lock. In ordinary seasons you would have abundance of water if you had a storage above the Brewarrina Rocks. Above these rocks there is a very long pool where the water could be thrown back by a weir for a very great distance, and that water could be let down to make up for the loss of water used by irrigation to maintain navigation.

2002. Your idea is that instead of storing more between each lock we should make one big storage up at the top, and let the water down as we consume it? I think it would be better than raising the weirs too much. You might put a foot on all through, and then have the main storage near Brewarrina.

2003. We have got one weir, with the shutter arrangement, which is so far unsatisfactory that it is not keeping the water back,—is it not so? That is so.

2004. Suppose we were to make another weir above that, with a sluice to let the water out through the weir, to let the silt out in case it should be wanted, we should have a second experiment? Yes.

2005. And if there were no important deposit of silt, and we found that sluice was not wanted, it would be a good argument for making solid concrete dams would it not? If you want to let the water out you must have a sluice; but I do not quite follow you.

2006. The objection made against your solid concrete dams by several witnesses is that silt will collect against them;—could you not get rid of that difficulty by having a sluice in the solid rock? To some extent; but I do not think there is much risk of silt collecting, and, even if it did, it would cost very little to put a sluice in. We could put a sluice into them all without increasing the cost very much.

2007. Not after they are built? No; as they are being built. I gave consideration to that matter, but I did not entertain the idea of putting them in. There is no evidence to show that there will be trouble with silt collected there.

2008. Suppose it does collect, we should have to get it away? At Brewarrina there is a rock across the river and for miles above that point there is a deep pool in which there is no silt at all. If the silt is travelling down the river why does it not fill that pool to commence with.

2009. You think that if the silt were brought down it would fill up these pools? It would fill up that pool first.

2010. Suppose we kept one steamer in the river with a sand pump, would that be sufficient to clear the river? Quite enough.

2011. With that precaution you do not think there is any need to make sluices? I do not think so.

2012. *Vice-Chairman.*] Since your last appearance before the Committee we have examined Mr. Millen. We drew his attention to the question of these fixed or movable weirs, and he gave this evidence:—

1493. Do you think it would be dangerous to erect fixed weirs in the Darling? I think there would be a danger. The soil there is extremely fine silt, and is so easily disturbed by the action of water that I fancy a permanent weir would offer a temptation to the river to cut another channel. I do not mean to say that this raises an insurmountable difficulty; but a permanent weir would have to be watched, and might entail expenditure which is not provided for in the estimate for this work.

1494. It would entail expense in the construction of very long side walls leading to the weir? Not more than I imagine a movable weir would cost in that way. The effect which an obstruction to the water has upon the river channel is seen in



two ways. Mr. Darley referred to one. He stated that wherever there was a rocky bar across the river bed, the channel was wider there than elsewhere. The other effect is that above these rocky bars we find that the river has either cut itself another channel, or is now doing so. I do not know that these channels are altogether a disadvantage, because they serve to distribute the water more extensively. At the same time they would have to be watched. C. W. Darley.  
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Do you think there is any force in these objections, that above these fixed weirs the water may get away to the sides, and form the side channels he speaks of;—do you think there will be any fear of that taking place? I do not think so; I do not think there is much tendency to silt up.

2013. You are prepared to advise the Committee to recommend the construction of these fixed weirs, having these difficulties in view? Yes. I think with a sand-pump dredge you can overcome any difficulty which may arise from an accumulation of sand.

2014. Without any fear of the weirs being surrounded and destroyed? Yes.

2015. *Mr. Shepherd.*] In the event of these weirs being raised in height, it would throw the water much higher than it is proposed to do by the present weirs,—would it not be possible to reduce the number of them? Then you come back to the same position you were in before; it would all be required for navigation.

2016. The water would be much higher than is proposed by the present weirs? No; if you reduce the weirs in number you throw the water back further, and you come to the same minimum depth again.

2017. It could be brought to the old point, and yet you could reduce some of the weirs I should think? You cannot reduce the number. If you reduce the number you come back to where you were.

2018. *Vice-Chairman.*] You wish to hand in a diagram showing the number of times the uppermost lock will have to be opened to cause a decrease of 1 foot in the pool? I hand in a diagram upon which there is a table showing that six lockings would lower the pool by one-eighth of an inch, fifty-one lockings by 1 inch, 152 lockings by 3 inches, 305 lockings by 6 inches, and 610 lockings by 12 inches. You could use the locks 610 times before you lowered the pool by 1 foot.

THURSDAY, 7 SEPTEMBER, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
The Hon. ANDREW GARRAN, LL.D.

The Hon. WILLIAM JOSEPH TRICKETT.  
WILLIAM THOMAS DICK, Esq.

JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Hugh Giffen McKinney, Principal Assistant Engineer, Water Conservation Branch, Department of Public Works, sworn, and further examined:—

2019. *Chairman.*] You were asked to get the Committee some information in reference to the Hay Irrigation Settlement and other irrigation settlements in the Colony? Yes. Under the Hay Irrigation Act the Municipal Council of Hay was constituted an irrigation trust, and the temporary common was granted to them to use as an irrigation settlement. After they had that common under their control for some time they came to the conclusion that if a scheme were prepared by the Government for them they could carry it out themselves, and they applied that I should be sent up to advise as to what scheme should be adopted. Accordingly, I proceeded to Hay, and went over the ground. I selected a place for a pumping-station on the northern side of the river, where they wished to start their irrigation first. As they had land on the southern side too, I also selected a pumping-station there; but they applied afterwards, that, in addition to that, I should have levels taken, and plans of the ground, showing the levels and also the best lines for irrigation channels marked out. That was sanctioned too, and I had the survey carried out and the levels taken, and everything practically ready for starting work when the Council, that is, the Irrigation Trust, stated that they would be able to raise the capital themselves and carry out the work. They did make a start, but at the very outset they departed in a vital point from the scheme I proposed. Instead of adopting the site I had chosen for the pumping-station, they took a place on much lower ground, considerably nearer the town of Hay, and instead of getting a new pumping-plant with a centrifugal pump, they bought an old pump in one place and boilers in another, and they ran themselves into a large amount of expense in getting these fitted up. Another thing which I did not advise, and never should have advised, was the construction of a reservoir which they took in hand. When I found that out I called the attention of the Government to it, and pointed out that the Council had departed in very material points from what I had recommended. However, as they had arranged then to carry out the works themselves nothing could be done; they were allowed to proceed, in fact, they could not have been interfered with. After they had gone on for some time it was found out that the works were going to cost very much more than they estimated, and their way of getting over the difficulty of the low ground proved to be a complete failure. They erected a flume which, when a heavy storm occurred some time afterwards, was blown across the plain. That, and several other things they did, brought them into financial difficulties, and they then applied to the Government to take up the matter. I was asked to report on it again, and I advised that the pumping-plant, which they had got, should be devoted to the town's use, as they stated they were wanting a new pumping-engine, and that a new pump should be got, and put up at the station first adopted. The trust objected to that, and the matter was allowed to rest until Colonel Home came out. In the meantime they had got their pumping-engine set up, but they had not sufficient funds to complete the work in order to start operations. Colonel Home reported on the works. He stated that if well managed he thought there was still a chance of their paying the interest on the outlay—that is, on the larger outlay, including what they wanted to get from the Government. He also stated in his report that if they had followed out the lines recommended in my report they would have had a better scheme at a cost of from £2,000 to £3,000 less. After Colonel Home had submitted his report a grant was made by the Government to enable the work to be completed. The works were completed, and then an amending Act was passed putting the works under a different kind of trust. It

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repealed the part of the first Act relating to the trust, and appointed a trust differently composed. The works have been under that trust up to the present time, but I see that lately a petition has been sent in asking for a dissolution of the trust.

2020. Have there been any results at all at the Hay irrigation works? 700 acres of land were taken up, and some of the irrigation was very satisfactory. The pump, I may say, is not suitable for that class of work, and they had a very heavy expense in getting over that difficulty of the pumping-plant being on low ground. It proved to be necessary to lay a pipe a distance of about a third of a mile up to the rising ground, and to force the water up to that from the pump. However, in spite of these disadvantages, 700 acres were taken up, and a considerable part of the area was put under irrigation, and I was told that the crops of sorghum, maize, and some things of that kind, proved exceedingly good. But I understand that people complained of the cost of the water. On the other hand, it was stated that they have not got a suitable class of settlers.

2021. Are they cropping their land now? I understand that they are. I have not visited the place lately, but I understand that there is a certain amount of irrigation still going on.

2022. It has not been a success so far? No.

2023. And the reason you give is that the machinery is not suitable? There is a variety of reasons. One reason is that the machinery is not suitable, and another is that the works cost too much. The initial cost was too great. There was no necessity for such expenditure if they had adopted a suitable design for the works. That pipe, which extends on to the high ground, if I recollect aright, cost from £1,500 to £2,000 at least. That expenditure would have been avoided entirely if they had adopted the site which I recommended for pumping.

2024. *Dr. Garran.*] You have referred to some preliminary expenses that the Government undertook before the local authorities took over the works;—do you know whether those expenses were charged to Revenue or to Loan Account? I am not quite sure; I know that all the preliminary expenses of preparing the plans, doing the survey, and taking the levels and everything of that kind amounted to about £150. I am not quite certain, but I think it was charged to Loan Account.

2025. It has not been debited to the capital account on the trust? No; there was an understanding that it was to have been returned by the trust, but as far as I know it was not. I cannot state exactly what happened afterwards.

2026. The Government has borne the preliminary expenses? Yes.

2027. Is that the whole of the preliminary expenses before the local trust began operations? That is all the Government undertook.

2028. That covered all your business? It covered everything.

2029. There has been no subsidy to the trust since then? Yes. After the trust petitioned for assistance there was a grant made to cover not only what they had expended, but what further expenditure was required. I think it was a grant of £10,000.

2030. Was it revenue or loan money? I understand that it was loan money.

2031. Was the engine which the trust first bought the old Botany engine? No; it was the old Crown-street engine.

2032. Was not the Botany engine bought for some irrigation purpose? I did not hear.

2033. Did your plan involve any reservoir on high ground? No; none. I did not consider that there was any necessity for a reservoir.

2034. To what height were you going to lift the water? The average lift, I reckoned, would be from 22 to 25 feet.

2035. You simply lift the water in the pipes? Yes.

2036. You do not require any stationary reservoir? No reservoir.

2037. Did you select a site on the bank of the river for your pumping-station? Yes: and one on the south side of the river also.

2038. On the south side of the common you mean? No, on the south side of the Murrumbidgee. The first grant of temporary common which was given to the original trust included a large area on the south side of the river as well as on the north side.

2039. Practically, there would be two farms? Yes.

2040. Have any attempts been made to settle both the farms, or has it all been concentrated on one? Only on the north side. By the amending Act all the area on the south side was taken away from the trust.

2041. Was any money spent on the south side? No.

2042. Then all the money spent is still to the good, so far, on the north side? Yes.

2043. Do you think the reservoir which they have built is of any service in distributing the water? Not the slightest; there were some serious objections to it. For one thing, the water which would have been absorbed in a large shallow reservoir like that would have been sufficient to have kept the pump going a considerable portion of every day in order to balance absorption and evaporation.

2044. You think the absorption in that reservoir would have been considerable? Certainly; besides, as the river is permanent, there was really no necessity for a reservoir.

2045. Supposing the river had fallen, how much would the reservoir have held;—would it have been a week's supply for their irrigation purposes? If anything like the whole of the present area had been under irrigation, it would have been a week's supply.

2046. Along for 700 acres, that would be comparatively useless, if we are going to have a drought so often? It would have been quite useless. I never could see any sufficient reason for having such a reservoir at all.

2047. Is the river ever empty at Hay—dried up? Never.

2048. There is always water enough in the river to irrigate the common? Always sufficient.

2049. What kind of soil is that common? It is a greyish soil, something between black soil and red soil. Part of it is red soil; but the greater part of it is greyish soil.

2050. Is there clay underneath? There is clay underneath part of it. I forget whether it runs through the whole of it or not; but there is clay underneath a part of it, I know.

2051. Did you, before you recommended it as an irrigation site, sink any pits, or bore at all? We had a number sunk, and we had it inspected by experts from the Agricultural Department.

2052. Do you remember what their report was? I know that Mr. Thompson, of the Agricultural Department, reported favourably on it.

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2053. What is the area which they have brought under cultivation? I have not heard exactly. It passed to the new trust; it passed from under our control. They were not in any way bound to supply us with any information. I could not say exactly the area which was under cultivation. I know that about 700 acres is about the area which they have let; but how much of it is under cultivation I cannot say.
2054. Is the Committee to understand that your responsibilities ceased after your preliminary advice was given? Yes. When I heard of the changes made by the trust, I wrote in, pointing out that the trust had taken the matter entirely into their own hands, and that I certainly could not be responsible for the effect of the changes they made.
2055. Has your advice been asked since by the trust? The advice of the Department was sought, and I reported; but the matter was left over, I think, partly at their request, if I remember aright, until Colonel Home would have an opportunity to report on it.
2056. Have you had access to any of the figures which would show the cost of lifting the water by the apparatus they have? No; they have not sent us any returns.
2057. You cannot tell the Committee what is the cost of lifting the water? No.
2058. Have you any reason for thinking that a centrifugal pump would have lifted the water much more cheaply than the pump they have? I certainly think it would.
2059. How much more cheaply? I should say probably it might have been as much as 15 or 20 per cent. cheaper.
2060. They are wasting that much additional? It may be called waste; probably they would say that their pump is more durable, or something of that kind, or that they got it more cheaply at the start. They did get it very cheaply, I understand.
2061. More cheaply than they could have got a centrifugal pump? I think so.
2062. The pump at Crown-street was for lifting the water up to Waverley or Paddington—a greater height than they want to lift their water? Much greater.
2063. You only want a pump to lift a large volume, and a very slight height? Quite so.
2064. That is a different kind of pump from one which is required to lift to a high elevation? Quite so.
2065. Will it work more cheaply per gallon? Yes; it would certainly be considerably cheaper.
2066. Taking all the experience of this Hay irrigation farm into consideration, do you consider that the result is encouraging or discouraging? It certainly is not encouraging. But then, on the other hand, it was handicapped by not getting a fair trial.
2067. Taking off a discount for the want of a fair trial, and supposing they had carried out your plan, which I suppose you still think the best, do you think there would have been an encouraging result then? I think it is quite doubtful, because it has been shown that there is a great difficulty in getting a class of settlers who understand irrigation, or who will make themselves acquainted with it in a short time. The greatest difficulty of all seems to be to get settlers who understand irrigation.
2068. Did they have any difficulty at Mildura in getting settlers who would buckle to and understand it? They had not; but they spent very many thousands of pounds in advertising in pretty nearly every town and colony in the British dominions.
2069. Does it happen because you advertise that the people who answer the advertisements are fit people? No; a great number of those who came to Mildura were not fit people. But still, taking them altogether, they got a very good class of settler there. They got a very large number who were quite unsuitable; but, on the other hand, they got a large number of very good settlers.
2070. If they got a large number of good settlers at Mildura, why should we not get a fair proportion of good settlers at Hay? If it were deemed that anything like the same expenditure were warranted in advertising I think we could get them.
2071. Do you know how many settlers there are at Hay? They are nearly all local men. There are very few that are outsiders. They are nearly all people who either are or were residents in Hay. Some of them have built houses on the irrigation area. I think the majority of them have not.
2072. Do they live in their own houses? Yes. The settlement is only about 2 miles from the town, and I think that the majority of the settlers live in their own houses in the town.
2073. They walk to the farm in the morning, and walk home again at night? Walk, ride, or drive. A few of them, I know, have built houses; and one or two of them have built very good houses.
2074. Have you been up there at all? Not recently.
2075. Does the Department get any reports down from the trust? It has not been getting any reports recently; in fact, the last Bill which was passed was taken in hand by the Minister for Lands.
2076. Did that stipulate for reports? Not to us.
2077. Did not the Department require reports showing what was done? The Lands Department, I should fancy, expects to get reports, because the District Surveyor was made a member of the trust.
2078. The Government has had a leg in the trust? Yes; there has been one Government officer always in the trust, and two Government officers part of the time.
2079. Then the local people have had the assistance of a Government official? Yes; at the meetings of the trust they had the advice and assistance of a Government official in that way.
2080. It does not necessarily follow that the District Surveyor is a good expert in irrigation? No.
2081. Only that he is a trustworthy man to report to the Government exactly what has been done, and nothing more than that? Quite so.
2082. It does not follow that he is a good adviser? Not by any means.
2083. How much land is under irrigation? 700 acres.
2084. What crops have they been growing? They have planted a number of fruit-trees I know; but the only crops I saw were crops of sorghum. I was not even close up to the crops; but I understand that sorghum was the crop which gave most satisfaction. Of course it gives a quick return.
2085. Was all the water distributed from this reservoir? The reservoir was abandoned altogether. It really never came into use.
2086. Do the trust convey the water in pipes or in channels? In open channels, after they reach the highest ground; it has to be carried in pipes up to the highest part of the ground, and then it passes into a trench there.
2087. From that main trench it is diverted in sub-trenches, I suppose, to the different properties? Yes.
2088. There is no piping after it has once reached the height? No.
2089. The only piping is just to lift the water? Yes.

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2090. Do you know whether they distribute the water over the ground in channels, or do they attempt to make surface irrigation? It is surface irrigation, I understand. I have not seen the details of the distribution; but, I understand, that what they have been doing is to make openings at intervals along the minor channels, which are simply small earth channels. They make openings at intervals, and allow the water to flow over the surface of the particular plots which they wish to irrigate.

2091. Do you know whether they grow fodder crops—like lucerne or hay crops? I am not quite certain. I think I heard that they were growing some lucerne; but I have not any particulars about that.

2092. I have asked all these questions because I want light on a point which has been very much before this Committee—namely, as to the possibility of a successful irrigation farm on the land to the north of Bourke;—you know that land very well? Yes.

2093. Do you know that it has been recommended by some witnesses—one in particular—as an ideal site for an irrigation farm? Yes; it has several important advantages.

2094. I want to find out whether this Hay irrigation farm, of which we have had a little experience, throws any light on the probability of our having a successful irrigation farm at Bourke? If the right sort of settlers were obtainable for that proposed irrigation farm near Bourke, I think it ought to be a success; but it appears to me that that is really the greatest difficulty.

2095. We are told that at Bourke it will be necessary to lift the water about 30 feet;—what is your lift at Hay? I think their lift now is about 7 to 8 feet more than it would have been in the place I selected. I think altogether it is about 32 or 33 feet.

2096. Practically, the lift would be about the same? About the same.

2097. So that the cost at Hay will be a fair guide to the cost at Bourke? It would.

2098. Providing that the cost of the plant and fitting-up is not heavier at Bourke than it was at Hay? Yes.

2099. I suppose there is no reason why it should be? No.

2100. One of the reasons given to us for locking this river is to supply water for irrigation, and I think you yourself have pressed that point? Yes, I did.

2101. For not only navigation but irrigation? Yes.

2102. I think you have given greater importance to irrigation over navigation, if they should ever clash? Yes; I think it would be of the greater ultimate importance.

2103. That being so, you see the immense importance of the questions I am putting; before we can suggest or recommend locking the river for the sake of irrigation, we ought to get all the available evidence as to whether an irrigation farm with a lift of 30 feet is a remunerative business or not? Quite so.

2104. I want you to say, if you think the Hay experiment, as far as you can see, would be encouraging or discouraging for such an experiment at Bourke? I should say that on the whole it is discouraging.

2105. I want to get your opinion, as the Committee are sure to look at this piece of ground, and naturally it will interest them very much to see whether the locking of the river would be likely to have any result in developing local production and so on? Yes; on the whole it certainly has been discouraging; but then on the other hand they certainly do not manage to get settlers here anything like as good on the average as those who have remained at Mildura.

2106. I understood you to say that all down the river here and there, the squatters have made small experiments at irrigation? Yes.

2107. They have had to find funds to do that, I suppose? Yes; in most places where they have irrigated on squatting stations, it has been for the production of fodder crops.

2108. They have grown hay and lucerne and sorghum? Quite so.

2109. Is that a simpler thing to do than to irrigate in channels over orchards and vegetable gardens? I do not think it is really. In vegetable gardens and orchards there is a greater amount of labour involved, but I do not think there is very much difference, otherwise, between the two.

2110. You pass the water through in defined channels? Yes.

2111. That is easier than distributing the water equally all over the surface? It is.

2112. *Mr. Watson.*] A person might put too much water on an orchard? Quite so.

2113. He would not be likely to do as much harm by putting a little more water on a fodder crop, as he would on an orchard? No. One of the most successful irrigationists up country ruined a considerable area of grass by over-irrigating when he first began his experiments. By irrigating in hot weather the grass became scalded and was killed.

2114. *Dr. Garra.*] You think there is not so much danger in regard to fodder crops as there is in regard to orchards? No. Speaking generally, an orchard is well worked up, and the ground is absorbent, and people can manage to have an orchard on a place which is naturally drained. So, as far as that risk under similar circumstances is concerned, I do not think there is much to choose.

2115. In your earlier evidence, if I remember aright, you looked forward to the possibility, if the river were locked, of suitable selected sites being made irrigation farms all down the river from Bourke to Menindie? Yes.

2116. But if I understand you aright now, there will be no chance of there being a success unless we can get the right sort of people? I think that is so.

2117. You are implying that there is a difficulty in getting the right sort of people? There is a difficulty, but I am not sure that I am not misunderstood about that. I may mention that I expected that there would be patches of irrigation at intervals all down the whole length of the river. But I expected that in the majority of these cases, the irrigation would be for the production of fodder crops, and I anticipated that the close settlement, at all events for a long time to come, would be in the neighbourhood of the towns; for instance at Wilcannia and Menindie, and possibly at Louth and Tilpa. My anticipation was that the general rule would be that the irrigation which would be practised at intervals along the Darling would be for the production of fodder crops.

2118. Still, for the production of fodder crops, you would require just as much skill as for the production of fruits? For the distribution of the water, practically you do.

2119. It requires a different class of skill for the cultivation of the plants, on pure irrigation farms? For irrigation, I think, there is just about as much skill wanted in one case as the other.

2120. So that we cannot get rid of the need of skill by assuming that we are going to get a fodder crop;—what I want to point out is, that your scheme for its completion requires not only the locking of the river, but the discovery of suitable people? That is as far as close settlement is concerned, not so far as the production of fodder crops is concerned.

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2121. You said just now that to irrigate a fodder crop requires just as much skill as to irrigate an orchard? Yes; but there is an important difference between the two cases. The irrigation of fodder crops would be started by people who could afford failures.
2122. Who could afford to learn by experience? Who could afford to pay for their experience; but with close settlement, the people who could take up small areas could not afford to buy their experience in that way.
2123. You mean that a man who will work for a squatter can learn at his expense, but the man who is on his own little farm will learn to his ruin if he cannot learn in time? Yes.
2124. The cheaper plan is for a man to learn at the squatter's expense? It undoubtedly is. In fact, on many of the squatting stations where irrigation has been practised, it has been practised in a very wasteful way indeed, and I have no doubt that many people have gained very much valuable experience there. I know many places where they ought to be irrigating three or four times as much as they are doing.
2125. Since you were here before, there has been enough rain in Queensland to make a fresh in the river? There has.
2126. So that navigation is just beginning again? Yes; in fact, one fresh went down, and there is another coming now. The Namoi has been flowing in, and there is a considerable quantity there.
2127. We have heard that the weir which you built, having been let down for some time, has been raised? It is not up now.
2128. Had it been raised? It was down, and it was raised.
2129. Did a request come to the Minister to have it put down? A request did come; but, as a matter of fact, it was down some time before that request came.
2130. At the present time it is not storing water? No; the river is now above navigation level, so that there is no necessity for storing water.
2131. Not for navigation purposes? No.
2132. All the water is going down the river? Yes.
2133. On the Darling, I suppose, you call anything over the banks a flood? Yes.
2134. You do not call it a flood until it is over the banks? No; it can fairly be called a flood before it is over the banks at Bourke, because the banks there are very high. It is a very high river indeed, when it comes within 5 or 6 feet of the top of the banks at Bourke.
2135. It gets over the top of your weir long before it gets over the banks? Yes.
2136. You would not call it a flood when it is merely over the top of your weir? No.
2137. When it is over the top of your weir and at that level, are there places where the water would go into side channels instead of flowing down the main river? It does go into side channels at that height, and in a number of places; but they are all side channels, which are connected with the river; they are not side channels, which flow away from the river.
2138. They are parallel channels? They are either parallel or horseshoe-shaped.
2139. Ana-branches, in fact? Yes.
2140. If the water is up to the top of your weir, is that water enough for all purposes down below the river if it is running over? Yes.
2141. Anything more than that in the Darling goes to waste? It does really.
2142. I suppose, practically, all our floods in the Darling have gone to waste? They have gone to waste, except in this way: on the lower part of the Darling there are considerable areas of low land, and all those polygonum and other things which are useful in times of drought to stock, get water by these floods, so that a flood is not altogether wasted; it waters a certain area of low land which is useful afterwards.
2143. You mean that there is a kind of natural irrigation which goes on on certain low flats? Yes.
2144. If we were to try to utilise all this water that goes to waste, could we make channels at right angles or otherwise to the river, and carry that water back into the dry country without taking away water which was really required down below? The water could be spared perfectly well, but, unfortunately, the country as a rule is very ill adapted to that.
2145. It is not well adapted to carrying the water back from the river? No.
2146. How far back is it ill-adapted? There is not a general fall in the ground away from the Darling River as there is in the case of the Murrumbidgee. In that case the banks are the highest land in the neighbourhood, and the country falls away, so that, once the water is out, you can take it away quite naturally.
2147. In the case of that dam you built on the Willandra billabong, the water runs, I suppose, right away to that lake? Yes, that is a natural outflow channel.
2148. And there is no such natural outflow as that off the Darling? There is one at the Talyawalka—the one which supplies these lakes.
2149. How far is that lake which seems to be the end of the Talyawalka ana-branch from the Darling? It must be over 50 miles.
2150. How far is the lake at the end of the Willandra billabong from the point where it takes the water off? It is about 100 miles in a direct line.
2151. That is the longest natural channel we have which takes water off the river? If you take the Edward River from the Murray, I believe it would be longer than that; that is really a natural channel.
2152. That is an ana-branch? Yes.
2153. I am talking of channels which begin in the river and end in the desert? I think the Willandra billabong is the longest. I do not think we have one equal to that.
2154. If nature could make a channel 150 miles long, and take water from the river, cannot art make a channel 150 miles long, and take the water to the back country too? Yes; the channel could be made; but the question of cost would be a very serious matter.
2155. I am wanting to know whether there will be any difficult ridges to cut through, or whether the fall of land would allow the high floods in the Darling to be sent back 50, 60, 70, or 100 miles? The only case I can recollect where that can be done is on the lower part near this Talyawalka ana-branch. The great ana-branch might be somewhat improved, but not very much, because the fall in the country there is so slight in the direction in which the ana-branch runs. It is not capable of very great improvement.
2156. In the Upper Darling, between Bourke and Wilcannia, the land on either side is a little too high for water to be sent into the back country? Yes; and as a rule it does not fall away from the river; the slope is not away from the river.
2157. Not even the waters of the highest flood could be economically carried into the interior? No; they could not be taken to any great distance.
2158. The inference from that is that the flood waters must continue to be wasted? Yes, I am afraid they

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- they must. The only chance of saving them is in some of the large lakes in the lower part of the river. A quantity could be conserved in the lakes near Menindie.
2159. Nowhere else that you know of? I do not not know of any good site, except in these large lakes in the lower part of the river; and in most cases there are considerable objections to utilising them.
2160. We could improve the Talyawalka billabong a little bit? Yes, it can be somewhat improved. When I was first instructed to look into the question of locking the river Darling, my idea was that a weir ought to be constructed in such a way that it would divert water into the Talyawalka billabong. But I found that it would have to be such a height that there would be the risk of diverting the course of the river altogether in flood time.
2161. Before this water ran into the Talyawalka billabong, it would have to be much higher than the top of your lock? Yes; we would have to adopt a different style altogether.
2162. None of these ana-branches take the water off at the low level at all? None.
2163. How much, generally, do the waters have to rise before they will get into an ana-branch off the Darling? If I recollect rightly there is a channel into that Talyawalka billabong at from 18 to 20 feet above the river bed.
2164. You see on that wall-map the lake at the end of the Talyawalka billabong and the lake at the end of the Willandra billabong, and between those two points there is a little bit of rising ground, I suppose a kind of watershed;—would it be 100 miles from the end of one to the end of the other? Forty-five miles.
2165. And that is slightly elevated ground, I suppose? It is slightly undulating. There is one distinct undulation. I remember, because I was looking-out to try to locate the position of the watershed.
2166. Would it be possible, if we could take the water into the Talyawalka billabong from the Darling in a flood, to force that water further along, and put it in a lake at the head of the Willandra billabong? I think not, as far as my recollection goes. The lake at the end of the Willandra billabong, is higher than the lake at the lower end of the Talyawalka billabong; speaking from memory I believe it is higher.
2167. Because sometimes the Darling is in flood owing to Queensland rains when the Lachlan is low? Certainly.
2168. And it would be a great thing if you could divert Queensland water, which is going to be wasted, into that Willandra billabong? It would certainly. I will look up the difference between the two, but to the best of my recollection the lake at the end of the Willandra billabong is more elevated than the lake at the end of the Talyawalka billabong.
2169. If your surveys give the figures, I should like to know the elevation of the lakes at the head of the Talyawalka billabong, the elevation of the lake at the end of the Willandra billabong, and the height of the intervening ridge? I have got the height of the ridge, at all events, from the railway levels, if I have not got it in my own surveys. I know that I have the elevation of the lakes. I will furnish the information to the Committee.\*
2170. Will you now relate the history of the Wentworth irrigation farm? The Wentworth Municipal Council was constituted an irrigation trust in the same way as the Hay Council was, and there was a special Act passed, in which this was decided on, known as the Wentworth Irrigation Act. That Act gave the Wentworth Council the control of 10,000 acres of temporary common to use as an irrigation area. The Wentworth Irrigation Trust decided, like the Hay Trust, that they would raise the necessary funds and carry out the work themselves. They appointed a Victorian gentleman as engineer and manager, and he set about getting out a scheme for them. In the course of time, I think it was about 1892, they were not satisfied with the length of time which was being taken in the preparation of the scheme, and, also, they were not satisfied with the amount which was being expended on it. They asked their engineer and manager to at once submit what he had and to give as close an estimate as he could of the cost of the scheme he would recommend. He did this, and the scheme which he recommended was to cost between £18,000 and 19,000. One serious drawback to the scheme was that the place where it was proposed to pump the water was outside the irrigation area; it was on Crown land. This report was forwarded by the trust to the Public Works Department for information. The question of the merit of the scheme was made over to me, while the question of the legality of the pumping outside the irrigation area was looked into by the Crown law officers, who, I may say, decided that the trust could not lawfully pump from outside the irrigation area. I had to go into the merits of the scheme independently of that point, and the conclusion I came to was that it was too expensive for them to start with; that they ought to start with a smaller scheme, and that it would be advisable to start nearer Wentworth. Then the Wentworth Council asked that I should be sent there to advise as to what should be done. I went there and reported on a scheme which I estimated to cost about £5,000, within about 4 miles of the town of Wentworth, whereas the other scheme was about 9 miles away. When this report was received the council unanimously decided to adopt it, and they still intended to go on with the scheme, and raise the funds themselves. But just about that time, the financial crisis of 1893 came, and they found themselves saddled with an overdraft of £1,000, which they had raised on the personal security of the members of the trust, and, in addition to that, they found they could raise no funds to proceed with the work. After the matter had stood over for a considerable length of time, they decided to ask that the Government should carry out the work for them. In order to do that, the trust had to be dissolved, and the Government had to take over the liabilities of the trust as well, and to take back all the area of land which had been dedicated, and eventually the works were put in hand. All the necessary preliminaries were gone through, and the works were carried out, but there was considerable delay, after they were carried out, in getting regulations under which the irrigation was to be managed. That delay, as it proved afterwards, was a very serious drawback, because a number of people who had come from Mildura and other places, to take up blocks, had waited for some months for the regulations to come out, and, owing to the delay, they decided not to remain. Eventually the regulations did come out, and the areas were thrown open eight months ago, but only 55 acres were taken up. That is the position of affairs now. Some complaints were made lately about that matter; in fact, I think Sir Joseph Abbott called attention to the insufficiency of the advertising which had been done, and, on account of that, there is a whole statement coming out in the next number of the *Agricultural Gazette* showing the position of affairs at Wentworth and describing the land and the advantages of the settlement.

2171.

\* NOTE (on revision):—The bed of Lake Moomanyah, which is supplied from the Willandra billabong, is 66 feet higher than that of Sayer's Lake, which is fed from the Talyawalka. The distance between these lakes is 45 miles, and this is the shortest distance between the limits of the Lachlan and Darling flood-waters. On this line, at 6 miles from Lake Moomanyah, the ground level is 44 feet above the bed of the lake, and at 28 miles the ground is 92 feet above the same level.

2171. Can you say how much money the Government has now embarked in this concern? About £1,100, which had been expended by the people, had to be made good by the Government, chiefly in the preliminary work. Generally speaking, Government work is credited with being more expensive than private work. In that case the preliminary work done privately cost fully £900, while the preliminary work done by the Government cost considerably under £200.

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2172. *Mr. Watson.*] Was it done in the one place? Not in the one place. There were some levels which were taken from those places by the Victorian engineer. We connected our work with them; but they were really of no use to us. We only used them as a check.

2173. *Dr. Garran.*] I understand that the Government had to pay about £1,100 to take over this work;—how much has it spent since? As far as I can recollect, about £4,000, in addition to the £1,100. I know it is not much over my original estimates for the scheme.

2174. Since the Government has taken it over, has it been under your supervision? Yes; there is an engineer and manager down on the place.

2175. Then we have spent £5,000 of public money and secured 55 acres of cultivation? Yes; but I need scarcely say that it has not had time to have a trial yet.

2176. How long have these regulations been out? I think about nine or ten months.

2177. There has been a Government officer on the spot all the time; we have been paying his salary all the time, and we have only 55 acres of cultivation to show? Yes; that is all that has been taken up yet. It has all been taken up by local people.

2178. Do you know whether this £5,000 has been charged to revenue or to loan account? To loan account, I believe.

2179. Is this area of 55 acres in the hands of one man? No; there are seven blocks at least.

2180. They must be very small blocks? The blocks run from 5 up to 25 acres.

2181. Are they taken for vegetable gardens or orchards? The cultivation which they have started on them is to a large extent for fodder crops. They have wheat, lucerne, potatoes, and some acres of vines.

2182. The market, I suppose, is a local market? Yes, for anything which they have now.

2183. They would have the same advantages for getting products away from there as they would have at Mildura? They would be able to get them away by river, or by river and rail combined.

2184. How do they get them away from Mildura? Speaking generally, down the river, but very often they send goods up the river to Swan Hill.

2185. That is some considerable distance? It is; but there is a regular line of steamers which runs there.

2186. They do not attempt land carriage? I think not. I have never heard of any attempt at land carriage.

2187. So far as the experiment at Wentworth goes, there is nothing more encouraging in that one than there is in the Hay one? There is just the same difficulty about getting the right class of settlers. Of course, the Hay settlement has been very much longer in the field. The Wentworth one has not had time yet to show what can be done; in fact this is the first real attempt which has been taken to bring it very largely into prominence. This article, which will appear in the *Agricultural Gazette* next month, ought to be of considerable use; I will be much disappointed if it has not some effect.

2188. At any rate there is nothing in the experiment, either at Hay or at Wentworth, to justify the Government in taking immediate steps to start a third farm at Bourke? There is not at present. In fact, the Balranald trust is in the same position as the Wentworth trust came to be in, that is, before the Government took it up. They wanted it to be dissolved, and the Government to take it up; but it was decided that any action there should await developments at Wentworth.

2189. Is there any irrigation going on at Balranald? There are some gardens, and things of that kind; but there is no irrigation on any considerable scale. There was a trust formed at Balranald in exactly the same way as at Hay and at Wentworth.

2190. Was it started privately? No; Parliament passed the Balranald Irrigation Act, constituting the municipal council an irrigation trust, as at Hay and Wentworth.

2191. Has the council put any people on the land at Balranald? There were some pieces of land taken up on lease, but they had not the capital to arrange about irrigation. There has been no pumping-plant bought, but the council had a survey made and some levels taken.

2192. Is the lift of water at Wentworth the same as at Hay? It is very similar. The average will be slightly less. The Murray is a more regular river, and the average will be less at Wentworth.

2193. What is the lift supposed to be at Mildura? I think the average lift for the pump is about 70 feet, and the highest lift is about 90 feet. At Wentworth the average lift will not be more than 18 or 20 feet.

2194. There is no very high ground on Wentworth Common? There is very little high ground.

2195. A lift of 20 feet will command nearly the whole of the common? It will command a large proportion of it. One reason why you may expect that we shall have a fair success at Wentworth is that the terms we offer are really a little less than half what it costs the settlers to go on the land at Mildura, at least less than half what it did cost them. There is no payment for the land; it is let on lease for thirty years, and the land and the water rate, combined, at Wentworth, are just about the same as the water-rate alone at Mildura.

2196. You have no promoters' interests to pay money on at Wentworth? Quite so.

2197. Is the character of the soil at Wentworth as good as the character of the soil at Mildura? It is for some things. The light reddish soil was very much advocated by the Chaffeys, and up to the present time there is a number of people who think that there is no soil at all like it for crops of almost any kind.

2198. What is the kind of soil at Wentworth? It is very similar to what it is at Hay. Most of it is a greyish soil, or a reddish soil.

2199. Is that more fitted for particular kinds of cultivation than the red? I believe it is. I do not profess to be an authority on soil, but I know I have tried things which have grown on this soil. For instance, I have tasted better peaches grown on this soil than I have ever tasted in Sydney.

2200. Better than they can get at Mildura? I do not think I tried any of the Mildura peaches; but I know that I never got peaches in Sydney as good as I have tasted at Wentworth, and they grow beautiful oranges there too.

2201. You have not had experience enough at Wentworth to determine what crops can be most advantageously grown there? No. This is really the first season for crops at Wentworth.

2202. *Mr. Shepherd.*] Have you been to the Darling since you were examined here in May last? No.

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2203. You have been there frequently? Yes; I went along the Darling in a steamer from Walgett to Wentworth.
2204. The Committee were anxious to get all the particulars they could as to the suitability of the Darling for irrigation purposes, and for locking, and you have given the matter, no doubt, every consideration? Yes. I looked into the matter as much as I had an opportunity to do.
2205. And you think it is possible to efficiently irrigate the country in the immediate vicinity of the Darling? Only in patches, not in great areas.
2206. Not extensively? Not in extensive areas; but in many patches it is quite practicable, and could be done, I believe, advantageously.
2207. What do you think would be the most feasible way of proceeding to secure a sufficient flow of water for irrigation purposes? As far as obtaining a sufficient supply is concerned, in a flooded year, there is enough water in the river for a very considerable amount of irrigation. In the period from 1889 to 1894 I think there hardly ever was a year in which there could not have been a large amount of irrigation done simply from the natural flow. Of course, we have had some very low years since then, and the only way in which irrigation could be done to any great extent in such years would be by storing the water in the river, and also in any locks or reservoirs which were available.
2208. Would you throw it into these locks or billabongs by damming the river a sufficient height to throw it into them, or how is it to be done? I am sorry to say that there are only a few places where these billabongs or lakes can be availed of to any great extent in that way. Menindie Lake would be easily availed of, and so would Pamamaroo Lake; but they are among the very few lakes which could be utilised without much trouble. It would be a simple matter to divert water into either of those lakes.
2209. Do you think the plan proposed for locking the river would give a sufficient supply for irrigation? Only for irrigation on a comparatively moderate scale. It would not give a supply for any great irrigation scheme.
2210. You are aware that nearly all these lakes and billabongs are supplied from the overflow from the river, as a rule, and that as the river recedes the water is drained away from the lakes? Yes.
2211. So that to conserve that water it will be necessary to dam the channel between the lake and the river? Yes; it would be necessary to have floodgates.
2212. The great difficulty is that the time when irrigation is most required is when the river is at its lowest—that is, in these very dry seasons? Speaking generally, that is so, although not always, because with us, the river sometimes in very dry seasons comes very high, from Queensland water. That has been known to occur repeatedly.
2213. And the rains in Queensland, I think, generally come at a season when we have very little in New South Wales? I believe they do. I do not know the conditions there very well.
2214. In the summer they generally have the heaviest rainfall in Queensland? I think they have.
2215. What is the difference in irrigating undulating country and flat country? In irrigating undulating country your only chance of distributing water at any moderate cost is to manage to get the water along the tops of the ridges and let it pass down on each side from there. Of course, with flat country you can take your distributory, and make openings at intervals so as to flood the ground. I may mention that in India the regulations compel the people to divide their land into areas not exceeding a certain size, on account of the waste of water if they try to flood too large an area.
2216. They fill these drains and allow the water to soak into the areas enclosed, I suppose? They keep a constant flow in these channels; but the whole of the land is divided up like a chessboard, and the size is generally a square chain, sometimes even considerably smaller. A square chain is about a tenth part of an acre. As far as I can recollect, that is about the outside size for these small divisions. They have their distributory running along a line of these divisions, and they open the side of their small distributory at a particular spot, and as soon as a small area is filled that is blocked, and they open it for the next one, and so on.
2217. So that the irrigation goes on gradually? Yes; and the part which is nearest to the distributory channel is not much over-irrigated. The tendency is to greatly over-irrigate the part near an opening, and, perhaps, to under-irrigate the part furthest away.
2218. Is it not a fact that in the Victorian irrigation settlement a great deal of water was lost through crab-holes being found to exist in the open drains? That is what they said; but I think the crabs were a good deal maligned. I know that the channels were very badly designed at the start, and when they did not carry water, as was expected, the whole blame was thrown on to these poor unfortunate crabs.
2219. From its nature, I fancy the country on the Darling would not be so liable to a fault of that kind as the land in the Victorian irrigation settlement? I do not think it would. What I mean to say is that you cannot depend on these statements which were made about the great damage which was done by the cray-fish. From all I can gather, it was very much exaggerated. I know that the flow of water going so badly in the channels could, in most cases, at any rate, have been accounted for by the rate of fall being insufficient for the class of channels they made. They made very broad shallow channels, and they gave them a fall of only 6 inches in a mile, which was not enough. When water did not flow in the channels properly they put it down to cray-fish.
2220. Do you approve of irrigating by open drains in preference to flooding on flat country? The drains are wanted in any case to distribute the water properly. If you try to flood too large an area, it will simply mean that the place near the entrance to the water will be a great deal over-irrigated, and the place furthest away from that point will be under-irrigated.
2221. So that if you want to economise your water, and have uniform irrigation, you require to have these channels at pretty frequent intervals? Yes; then you can irrigate any particular portion as you require it.
2222. In flooding the part you cannot do that? No, and you have your irrigation more uniform.
2223. Has irrigation been carried out to any extent on the Darling, or has it been carried out there at all? No; I am surprised to find to what a small extent it has been carried out. I will take the number of applications we have received for pumping-plants throughout the Colony under the Water Rights Act. We have received altogether sixty-six applications, and of these only six have come from the whole length of the Darling.
2224. Do you think it will be possible to arrange to carry on irrigation there by gravitation instead of by pumping? I do not think so.



2225. Of course gravitation will be very much cheaper? It will be much cheaper; but the only places in which that can be done are a few places where there is a stretch of low-lying land beside the river, which will get precarious irrigation from floods.

2226. And where there is a constant flow? There is no place that I can remember on the whole course of the Darling where they could irrigate, except in high river, by gravitation.

2227. *Mr. Dick.*] In the report of the Victorian Royal Commission on Water Supply, at page 108, I find this statement:—

It is no longer a speculation to assert that cultivation within the dry valleys and plains of Central and Southern California is having the effect of drawing upwards by capillary attraction the subterrene supplies of water, and to a distinct and marked degree lessening the need of surface application. How much, if any, effect this increased humidity of the surface soil may have on the atmospheric humidity is not yet known. The increase of evaporation by means of cultivation, both of trees and plants, must ultimately produce a beneficial change in this regard.

Would you care to offer the Committee any opinion on a statement of that kind with respect to irrigation along the river Darling? I do not think that irrigation there would be practicable on such a scale as to have any appreciable effect in that way. There might be a certain amount of local effect perceptible, but there certainly would not be any widespread effect from any cause of that kind.

2228. In this case, the effect is ascribed to irrigation over an area practically about 5 per cent. of the State? I cannot help thinking that the statement of there being any perceptible effect is exaggerated. I should not think there was any perceptible effect.

2229. Have any searching investigations been made as to the various sites along the course of the Darling as regards their suitability for irrigation settlements? No; there has been no very close examination of that kind. When I was going along the river by steamer I took notes in regard to the position of the high red land, and also the position of any extensive flats, but it appeared to me that irrigation along there would be, comparatively speaking, on such a small scale, that is, small in proportion to the length of the river, that I did not think the circumstances would warrant me in taking time to go into it in detail.

2230. Do you think that irrigation would be on rather a small scale there? It would be on a small scale on any one place.

2231. At each particular spot where irrigation is to be carried out, it would be necessary to have a complete irrigating plant? I think so.

2232. Under these circumstances, seeing that a 30-foot lift is necessary, and that there is little or no population along there, do you think that there are likely to be any developments at all in the way of irrigation along the river Darling? I would go so far as to say that it is disgraceful to the enterprise of the pastoralists that there is not more done in that way. A number of years ago, when vessels were stuck in the river, there was a case of horses being kept alive on flour for some time, and this on land which will produce lucerne that would feed twenty-two sheep to the acre. All they wanted to do was to pump sufficient water from the river to supply themselves with enough fodder to carry their horses and the most valuable part of their stock through a bad season.

2233. Have you any idea what is the average number of bad seasons, say, in ten years, in that district? I think, speaking generally, the bad seasons are in a considerable majority. There is nearly always a scarcity of rain there. I do not recollect any season in which the people there expressed themselves satisfied with the quantity of rain they had.

2234. Still we find that sheep-raising has been successfully prosecuted along the river Darling? It has; but as a matter of fact there have been very few of the pastoral holdings there which have been satisfactory to their owners; it has been the exception, for the risk is too great.

2235. Taking an average sized pastoral holding there, with a frontage to the river, as most of them have, what area of irrigable land would there be in an average holding? You can find a number of single holdings which would have several thousands of acres of irrigable land, that is to say, land that could be irrigated in that way by pumping.

2236. Would the irrigation of several thousand acres be an expensive undertaking? Yes. You asked me to state the area of irrigable land. I think every large station there should have 100 or 200 acres under cultivation.

2237. You stated that 200 acres of irrigated land under fodder crops could support practically twenty sheep to the acre;—that would give as a maximum 4,000 sheep which they could depasture in a bad season on their irrigation area? Yes; but I should never expect their irrigation area to carry their stock of sheep through a bad season. The most I should expect the irrigation to do on these large properties would be to carry their horses and working bullocks, if they had any, and, perhaps, their stud rams.

2238. You do not look upon it then as an insurance against the loss of the general stock? Not for the whole stock. What I said about the number of sheep that could be carried by 1 acre of land is mentioned as the result of an experiment which was made on the Tapio run near Wentworth. When Messrs. Brooks Brothers had that station they tried irrigating a plot of, I think, 15 or 20 acres of lucerne. They cut that lucerne carefully time after time, they fed a number of sheep on it, and they tried how many sheep it carried to the acre, and as far as my recollection serves me it was twenty-two or twenty-three.

2239. If a pastoralist situated up there irrigated a few hundred acres, would he be able, thereby, not to feed the whole of his flock, through a prolonged period, but to tide over a considerable portion of his flock during the worst period of the drought? That is really what I should think he would do. There is another point in connection with the irrigation of that area of 200 acres. In a good year the produce of that area would be wanted only to a very limited extent; they could go on storing hay from year to year, and if a very bad season came, they could have an extensive stock of hay to fall back upon.

2240. Is there anything in the present state of the law which prohibits a pastoralist from irrigating a small area like that? No; in fact in some places they are doing it on a very considerable scale.

2241. Where? Along the Murrumbidgee. There is scarcely a station now which has not a considerable patch of irrigation.

2242. Along the Darling? There are very few along the Darling, and that is the surprising part of the business.

2243. In spite of the fact that it offers a fairly effective insurance against loss, and many other manifest advantages, and that it would not cost a very large sum, pastoralists in that district still refuse to go in for irrigation? I believe the great majority of the pastoral properties on the Darling are held by financial

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financial companies. I do not think these companies take a very broad view of an enterprise like that, which they think will very likely be mismanaged, and merely lead to useless expense. I know one case in the western part of the Colony—it is not on the Darling—where a station manager, who was working under a pastoral company, had the greatest trouble to get permission to cultivate a large patch of land in a good season for producing hay. He managed to get their sanction with great difficulty, and the result was that when a bad season came—in fact, it was last year, and the hay his neighbours were importing was costing them about £6 a ton—he had his hay at a gross cost of about 25s. a ton. Yet that station manager had great trouble in persuading the company he represented to spend the money on that cultivation.

2244. May we take it that on account of the limited area which would be placed under irrigation, the conflict between navigation and irrigation would undoubtedly not arise at all? It would not arise in the near future.

2245. And what would tend to bring that about later on? The people coming to understand irrigation better, and adopting it on a larger scale.

2246. You think that with the increase of population, and with the extension of knowledge in that district, there is likely to be an increase in the area put under cultivation? I do.

2247. We have had two or three practically Government schemes of irrigation in places fairly favourably situated, and we have also one or two to compare with them instituted by private enterprise;—could you institute any sort of comparison between the results of Government initiation and the results of schemes started by private enterprise? The only comparison of that kind I know of would be between Wentworth and Mildura.

2248. I mean as far as results are concerned? We have not gone far enough to be able to say anything about results; we could not make a comparison at this stage.

2249. Do you know what the charges are at Mildura and at Wentworth for watering land? The water-rate at Wentworth is £1 an acre; I am not quite sure what it is at Mildura. I know there was a proposal that it should be 25s.; but, if it is £1, I know they are constantly in trouble about the insufficiency of water, and they are wanting the Government to assist them in the cost of pumping.

2250. *Mr. Watson.*] When you were last examined, you stated, in reply to me, that if each lock were raised by 1 foot the quantity of extra water available above the requirements of navigation would be sufficient to properly irrigate about 8,000 acres—that is after making allowance for evaporation, loss, and so on? Yes.

2251. You also stated, in reply to question 820:—

If the weirs were raised 1 foot all along, that quantity of water that I have mentioned would be equal to a depth of 1 foot for an area of 13,818 acres? Yes.

And later on, in view of the rainfall and so on, you said, in reply to question 822:—

If you had to depend on that water altogether and allow for all the losses in distributing it instead of taking 13,000 acres, you would want to take 7,000 or 8,000 acres.

? Yes.

2252. We may take that as your estimate of what area these weirs would allow of being watered? I really have forgotten the figures; I made them out at the time.

2253. You were also asked at the time whether you could give an estimate of the cost of raising the weirs so as to get the greatest results; but since then Mr. Darley has been examined and given an estimate of the increased cost; he states that to raise each one of the seventeen weirs by 3 feet, which is regarded as the maximum height to which they might be raised with safety, would mean an additional expenditure of £68,491;—if the weirs were 3 feet higher, on your basis of calculation, you could irrigate 24,000 acres? Yes.

2254. Assuming that the cost of storing sufficient water to irrigate 24,000 acres to be £70,000, and allowing for the cost of raising that water for the purpose of irrigation and distributing it, do you think there is a sufficient margin between the additional cost and the probable results from the rentals of irrigation colonies to justify the extra expenditure? I scarcely think there is at the present time, but I think it is a matter which could be done afterwards. If I am not mistaken, such arrangements could be made by degrees, as irrigation developed, as would admit of the raising of the weirs.

2255. But that would mean a certain amount or preliminary expense in the broadening of the base and both weirs and locks? No; in the case of the locks it would simply mean adding on to the walls.

2256. And the gates? It would certainly mean adding to the gates. That would be a greater difficulty, for it would practically mean new gates.

2257. On a total expenditure of over £500,000, if it is worth while to provide for irrigation at all, I should imagine that an expenditure of £70,000 would be justifiable? I have not looked into that question in all its bearings. I am not quite certain to what extent it would interfere with the river.

MONDAY, 11 SEPTEMBER, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
The Hon. ANDREW GARRAN, LL.D.  
The Hon. WILLIAM JOSEPH TRICKETT.

WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.  
ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

John James Phelps, grazier, Albemarle station, near Menindie, sworn, and examined:—

J. J. Phelps. 2258. *Mr. Trickett.*] You are a grazier, residing on Albemarle station, near Menindie? Yes; it is 17 miles up the river from Menindie.

11 Sept., 1899. 2259 How long have you been there? Twenty-three years.

2260. Therefore, you are pretty well conversant with the history of the Darling River during that period? Yes. 2261.

J. J. Phelps.

11 Sept., 1899.

2261. How many miles is Menindie from Bourke? It is about 320 miles by land.
2262. And by water? About  $2\frac{1}{2}$  miles of river to 1 mile of land.
2263. It is little more than double the distance by water? Yes.
2264. Do you know what the fall of the river is in that length? I do not, but I have been told that between Menindie and Wentworth the fall is 2 inches to the mile.
2265. What has been your experience of the navigability of the river during that time? During the first few years it used to go dry very frequently, up to 1889. Since 1889 we had a continuous river as far as the place I come from, for seven years.
2266. Continuous right away? No, only continuous to us. It broke once or twice to Wilcannia, but only for a short time. Since then we have had very small rises, but no continuous river.
2267. At Albemarle station, how do you get your goods brought up, and your wool sent away? We get the goods either from Adelaide or Melbourne by river, and send the wool away by river to one place or the other.
2268. You deal with Adelaide? With Adelaide or Melbourne, as the river offers.
2269. Is there any choice between the two ports, all things being equal? I prefer to send the wool to Melbourne and to get the stores from Adelaide.
2270. For any particular reasons? The stores are cheaper in Adelaide.
2271. And there are better wool sales in Melbourne? We do not sell the wool in Melbourne as a rule. With very few exceptions it is always shipped to England.
2272. Have you recently come from Menindie? Yes; I left there about the middle of July.
2273. You have not been home since? No.
2274. What was the state of the river when you left? It was very low; it was not navigable.
2275. And Lake Menindie. It was quite dry. I think it has been dry since 1894. In two lakes on the east bank of the river there is water yet.
2276. Have you given any attention to the subject of locking the Darling? No, not much.
2277. Are you able to state whether you think it is a river that could be dealt with by locks and weirs, and that it would improve its navigability, and also whether it would be possible in the dry country to go in for using the river water for irrigation purposes? I could not say anything about the practicability of locking the river, because I am not an expert.
2278. As regards its advantages, what would you say? I should say that it would be a certain advantage if it could be done; but as for going in for irrigation there, I think all irrigation farms would be likely to be destroyed periodically by those very big floods which cover the whole country.
2279. They do not come very often, do they? No; the excessively high floods do not come very often.
2280. How often has the river been over the banks, to your knowledge, since you have been at Albermarle? If you will allow me to refer to the lakes in the back country, I can tell you the number of times they were full; and it takes a high flood to fill them. The first time I knew them to be filled by back water was in 1879; then again in 1886 and 1887; and then from 1890 to 1893 it was almost in a continual state of flood.
2281. Do these flood-waters cover the whole of the face of the country? No, they do not cover the whole of it; but the whole of the frontage on the east side of the river for an average of 12 miles out is rendered useless; and although there are islands—sand-hills—which are not covered,—yet you cannot get stock to them.
2282. As a pastoralist, which would you prefer for the carriage of your goods,—water carriage or rail carriage? Water carriage.
2283. With a regular river you would prefer to send your wool by barges rather than by rail? Yes.
2284. Why? On account of the cheapness of carriage. Being right on the bank of the river we have special facilities for shipping by water.
2285. So that we could take it pretty well as a broad fact, that with an available river, you would always use the river, even if you had a railway to your door? Yes, always.
2286. I suppose you agree with the general view that river carriage is always cheaper than railway carriage? Yes, undoubtedly.
2287. Rail carriage cannot compete with river carriage? No.
2288. What is the freight now for wool from Menindie to Adelaide and Melbourne? I got a quotation for this year's clip to Melbourne at 40s. 6d. a ton for greasy, and 48s. for scoured wool. That is the rate from the station to Melbourne, including carriage over Victorian lines. I cannot say that I have known it to be any lower than that.
2289. That is a very cheap rate? It is, very cheap.
2290. For what distance? By river and rail, about 800 miles.
2291. Would not a railway from Menindie to Broken Hill suit you people very well? I do not think it would do us any good at all.
2292. Not a railway from Menindie to Broken Hill and thence to Adelaide? I do not think so.
2293. It would be too costly? Yes. We did send one clip of wool by that way. We carted it to Broken Hill. It cost us about £7 10s. a ton to Adelaide.
2294. Menindie is only about 70 miles from Broken Hill? Yes.
2295. *Mr. Watson.*] It was in a dry season I suppose? It was a fair season, but as the river was low we could not send it away by water.
2296. It was a fair season for teamsters? It was a fair season for teamsters, or they would not have been able to travel.
2297. *Mr. Trickett.*] The people of Menindie have often urged that a railway to Broken Hill is the only thing they require to put them in touch with the main railway system, that it would be a great outlet for the people from Broken Hill who wished to go to the river and enjoy themselves? Very few people do come from Broken Hill.
2298. You do not seem to agree with that idea? I do not see any money in it at all for the Government.
2299. You think that if people had money to spend, and wanted to take a holiday, they would not go to the river at Menindie? No; they would go south.
2300. I suppose the country about Menindie now is in a very bad state? It is in a very bad state.
2301. Is there much loss of stock there? Speaking for the station I represent, we have 55,000 sheep less than we had last year.
2302. You could not even send those sheep to the boiling-down works? No.

2303.

- J. J. Phelps. 2303. What extent of country does Albemarle station comprise? About 730,000 acres.
- 11 Sept., 1899. 2304. Carrying in an ordinary season about 100,000 sheep? It would average about 80,000. We are expecting to shear about 20,000 this year.
2305. I suppose this is about the worst drought you remember? It is the worst. We have had four years of drought now.
2306. So far as your knowledge of that district goes, do you think it is likely to remain a pastoral region, or is it likely to develop into a country where there will be a considerable population settled on small holdings? I see nothing for it but a pastoral future. I do not see any other possible chance for the district, as the rainfall is too low.
2307. What is the general character of the herbage for feed purposes? It is very good. The bulk of the grass there is the spear grass; but there are several other sorts of grass and herbage which are equally good—better, in fact.
2308. Is there any salt-bush? On the east bank of the river it has pretty nearly disappeared, from long stocking and rabbits; but on the west bank, out from the river a bit, there is still a considerable quantity of salt-bush.
2309. Then we can look upon it that it is not likely to be a very thickly-populated part of the country? Not in the immediate future.
2310. This proposal to construct locks and weirs is a very costly project;—can you give us any prospect of getting revenue to any large extent from that part of the river? The only chance of getting revenue that I can see is by putting a toll on the river.
2311. The toll would only be paid once a year, namely, at shearing time? Yes.
2312. And the revenue collected from a toll on goods and supplies would not be very large? No; it would not be very heavy.
2313. Do you know any place, either in your own locality or any part of the river Darling, where irrigation is carried on? On no large scale. Every station has its small fruit garden and vegetable garden, and some of them have small lucerne patches; but I know of no patch of more than 4 or 5 acres.
2314. I suppose in that dry part of the country the idea of attempting to grow produce to a large extent for the purpose of saving stock in a dry season is a mere idea? It is altogether out of the question.
2315. It would be a lamentable failure from a pecuniary point of view, if attempted? Altogether. We do plant a certain amount of wheat for the working horses; but that is altogether dependent on the rainfall. We do not irrigate.
2316. I suppose in continuous, dry seasons such as we are experiencing now, there is no help for the pasture? There is no way of saving the pasture at all.
2317. Do you know anything of the river between Brewarrina and Bourke? No.
2318. A Government official who has been examined here seems to think that between Brewarrina and Bourke, and possibly lower down, a little agricultural settlement might take place,—being worked possibly on the co-operative system as regards pumping water from the river on to the farm;—anywhere up near your place do you think any project of that kind would be likely to be started? I really do not see that it would. Broken Hill would be the only market for anyone.
2319. And to Broken Hill they have 70 miles of carriage over a very dry, rough road? It would be a very dry road for a great part of the time.
2320. So that, as regards its establishing any population about Menindie, that is not likely to be realised? I fancy it is out of the question.
2321. You stated that possibly we might put tolls on the river, have you thought out what rate of tolls? No.
2322. If we put these weirs across the river, and side locks, do you think there would be a possibility, or a probability, of the side of an approach being washed away in case of a heavy flood, and the river clearing away from this obstruction which would have to be erected;—we have been told that the soil is so extremely fine that it washes away very easily:—do you think, if this obstruction to the free course of the river were put up, the locks and weirs are likely to be left standing and the river to go away to one side? I think there is every danger of that. I have had experience in putting up dams of our own. We find that if water once gets running on flat ground it will make a creek in a very short time; it will cut away into a well-defined creek.
2323. Therefore the approaches to these locks and weirs, if constructed, would have to be very well protected to prevent the possibility of any danger of that kind? Very well protected indeed. The tendency now in big floods is for the river to cut across bends. I know one or two places where small islands have been formed by the river cutting across a narrow bend.
2324. And leaving its ordinary course? Yes.
2325. Would it be at a rocky corner that that occurs, or would it be cutting off a soft corner? It would be cutting off a soft corner. Rocks are very scarce in the river down about where I am. I only know one rock bar across the river about there.
2326. Were the dams which you constructed, and which suffered damage, made in the river or in creeks? In flooded creeks.
2327. Were they fairly well built, or were they rather primitive? They are all earth dams; but we have sluice-gates in one or two of them.
2328. Will you describe what takes place? As regards the last one we put up, we put a sluice-gate in the dam which had been standing for some years, and after we let the water through on a little blind creek, it cut out a creek about 8 feet deep, right up to the dam. Then we had to shut the gate and employ a sort of shoot to carry the water away from the foot of the dam.
2329. Is this soil washed right away, or does it accumulate a little further on? A good deal of it accumulates a little further on. It is very noticeable in places where the river cuts round a sharp bend. At the point of the bend an island is very apt to form; silt deposits itself there.
2330. What soil have you at Menindie—red soil or black soil? Both. The black soil is the flooded ground, that is the ground which the water goes over. The red soil is the red sand on the sand hills; that is not flooded ground.
2331. Is the soil of the same rich character as the soil which we find in the greater part of our western country, that with water it is very productive, and grows well? It must be rich, although it does not look rich. If rain falls it throws up very good feed.

2332. In this little holding which you say the squatters irrigate, do they grow crops successfully? Yes; J. J. Phelps. but as a rule they are on flooded country—on the clay country.
2333. The manager of the meat-works at Menindie has rather a good bit of cultivation? Yes; his garden is on a sandhill, and that is one of the few places where the sand comes in close to the river. 11 Sept., 1899.
2334. Does he irrigate that? He used to do it.
2335. Did he have a pump? He had only a small pump, with a two-inch pipe.
2336. Your evidence does not seem to offer any inducement for damming the river up towards Menindie? No.
2337. Can you give us any information about the river up towards Bourke? I have never been to Bourke; but up as far as Tilpa it is very similar country to the country I come from. A great deal of this lignum-flat country is all liable to be flooded. I think, moreover, if the river were to be locked it ought to be started at the lower end, instead of at the top end. We find that the Bourke lock has interfered with us to a small extent, cutting off the tail-end of the small floods.
2338. *Mr. Watson.*] If you started a flood with your lock full, at the other end of the river, you would be just as well off? I daresay.
2339. *Mr. Trickett.*] That appears to have been a mistake;—the weir was erected at Bourke in order that it should be a kind of object-lesson, and the flood-gates were kept up to a certain extent, and then they were let go;—if the gates had been kept up the people below would still have had the same flow as they are getting now? Yes.
2340. Have you suffered very great inconvenience at times by reason of not getting your wool away by the river? No. I only know one year where it was stuck for any considerable time. The clip of 1888, which we carted to Broken Hill, was stuck for about nine months.
2341. *Mr. Watson.*] What is the distance by river from Menindie to Wentworth? It is about 200 miles by land, and between 400 and 500 miles by river.
2342. The estimated cost of locking the river from Bourke to Menindie is £530,000, and at the rate of £930 a mile, which that distance averages, it would cost £400,000 to lock the river from Menindie to Wentworth; the annual charge on that expenditure of £530,000, together with the cost of maintenance, is £22,000 a year, and the annual charge on the additional expenditure of £400,000 between Wentworth and Menindie would be about £20,000;—from what you know of the river between Menindie and Wentworth, and the traffic, do you think you are likely to get £20,000 out of tolls and other charges? No, I do not see how you could, unless the tolls were made exorbitantly heavy.
2343. If the tolls were made too heavy, what would happen? They would have to go to the railways then.
2344. Do you think a work of that character ought to be expected to be altogether self-supporting? I do not think it should.
2345. Do you think we can expect to get one-half of that sum from the traffic at any time? I do not think so. I should say £5,000 would be nearer the mark, and that, of course, would depend on what the tolls were.
2346. You think that would be as large an amount as you would be likely to get from a reasonable toll? Yes.
2347. Do you think there would be any large increase in the value of land along the river frontages, consequent upon the locking of the river? I do not think so; the river now is open so much more than it used to be.
2348. That is hardly likely to be a permanent condition? It is not likely to be permanently navigable, but it may be navigable for three or four years on end. That I attribute to the extra stocking of the country up the river, so that more water runs in.
2349. The ground, I suppose, is beaten down with stock, and the grass cleared to a large extent, so that there is a better chance for the water to run into the river? Instead of soaking into the ground, a great part of the water runs off.
2350. That is likely to be a permanent condition? Yes, that would be getting better every day.
2351. So that there is likely to be a greater proportion of the rainfall within the drainage area going down the river, in the future, than did in the early days? Yes.
2352. But still, you would not expect that that would make so material a difference as to leave one dependent on the river? I think it would pay a station better to depend on it. It might not pay the people in the townships. Even at the risk of having to hold a clip for twelve months, I believe it would be better.
2353. Do the stations usually get their stores in large quantities at times? As a rule.
2354. Do they generally get several months' supplies? Yes.
2355. Suppose you had a clip river-bound, if I may use the term, and kept from the market for, say, six months, what charge do you usually have to pay the Bank against that clip—7, 8, or 9 per cent.? It depends a good deal upon the money market. I suppose, with a special arrangement, you could get an advance at 6 or 7 per cent. now.
2356. Assuming a man to have capital enough to try the experiment, which do you think would pay him the better—to pay 7 per cent. on an advance against the clip, and wait until it was marketed, or to pay the toll charge which it would be necessary to impose if works of this character were constructed, thereby getting a quicker return? I should say the toll charge.
2357. A quick return is better for pastoralists in common with others engaged in industries? Yes.
2358. Still what you have said to-day does not encourage us to expect a great deal from the construction of these works? No.
2359. The trade from Wilcannia, right on as far as Louth, I suppose, goes up by Menindie when the river is up? Up as far as Wilcannia, at any rate; the bulk of it comes up through Adelaide and Melbourne.
2360. That rate which you stated had been quoted for the carriage of wool from your station to Melbourne might be termed a cut rate, so far as the railway carriage is concerned? I think so. I think the Victorian Commissioners are cutting against South Australia.
2361. I suppose our own Commissioners are taking a hand in that game too? I have had no experience with them; but there is no doubt that they are in Lower Riverina.
2362. You are too far away from their lines to be tempted with offers. Altogether too far.
2363. Taking the tract of country about where you are, there is a competition between Victoria and South Australia? Yes.
2364. I suppose you do not anticipate getting the rates down quite so low after the Inter-State Commission

- J. J. Phelps. is created by the Federal Parliament? No; but then again we shall not have to pay a shilling a head duty on stock going out of the Colony, so that it might even things up a bit in that way.
- 11 Sept., 1899. 2365. The probability is that you will have to pay a little more on your wool carriage? I am sure that we shall have to do that.
2366. Had you any experience of sending wool by rail prior to the introduction of the cutting system? No.
2367. I suppose they started cutting as soon as they extended their branch lines sufficiently far out? Yes.
2368. I want to know if you could state what the original prices were? I do not mean to state that £2 a ton is the regular rate; it is a low rate. We have had to pay as high as £5 or £6 by the same track. Last year we had to pay about £5 10s. a ton to Adelaide for some wool. We had to pay about £4 10s. to Melbourne for other wool.
2369. One would fancy that if the river were navigable the wool could go, and that if it were not navigable it could not go;—therefore how does the state of the river affect the actual price of the carriage of wool? Because sometimes on a big river boats have no trouble. On a low river they sometimes stick and have to haul over. Sometimes they have to take off some of the wool, run down a few miles, empty out what they have on board, and come back for the rest. That is what causes the extra charge; they lose a lot of time in doing this.
2370. Last year you said it went up as high as £4 10s. a ton? £4 10s. a ton to Morgan, and I think it cost £1 a ton by rail from Morgan to Adelaide.
2371. The proposal before the Committee is to construct locks and weirs, starting at Bourke, and going down the river towards Menindie, and the underlying idea is that in certain seasons the country, anyhow down as far as Menindie, would be a feeder to the present railway terminus at Bourke, or to a railway station at Wilcannia if a railway were constructed to that point;—what do you think of that proposal? I think that if there were a line to Wilcannia you might do something, but certainly not to Bourke.
2372. You think, if a line were constructed from Cobar to Wilcannia, it would attract some traffic from both up and down the river? I think it would to a limited extent.
2373. Of course the trainage between Sydney and Wilcannia would be a little longer, if anything, than the trainage between Bourke and Sydney, so that the river carriage is so much shorter so far as Menindie is concerned? Yes.
2374. Why do you think it would be more likely to attract trade at Wilcannia than at Bourke? On account of its being nearer. There would be a difference of between 100 miles and over 300 miles by land.
2375. You stated that nearly all the stations have small patches of cultivation, and that a few of them have fruit gardens and vegetable gardens;—do many of the station-owners down there go in for irrigating a piece of land? On a very small scale. I only know of one station about there which irrigates about 4 or 5 acres.
2376. How do they raise the water? With a centrifugal pump from the river.
2377. Has their experience been successful? No. I was speaking to the man who had this plot, in Adelaide, and he told me that it was costing him too much.
2378. Did he mention what it was costing him to raise fodder? It was lucerne. He said it was costing between £3 and £4 a week. He told me it took three men all the time. He was complaining about it.
2379. Do you know whether his pumping gear was employed on the plot of 4 or 5 acres to its fullest capacity, or could he have irrigated a larger area? I think he could have irrigated a larger area with the same machinery.
2380. That would add to the expense of irrigating the small plot? Yes.
2381. He did not seem at all satisfied with his experience? No, he was not at all satisfied. Lucerne is not a good crop to grow on a station; there is not much sustenance in it for working horses, or anything of that sort.
2382. You do not know whether he has tried to grow any other fodder—maize, oats, wheat, or hay? I tried, on a small scale, some sugar-cane once, and that was a good heavy crop for horses.
2383. Were you satisfied with the experiment? I do not think it would do to feed them altogether on sugar-cane; it would be too rich for them.
2384. Was that crop raised by means of irrigation? Yes; but only on a very small scale.
2385. What height did the pastoralist with the patch of 4 or 5 acres lift the water to irrigate his patch? That altogether depends on the height of the river. When it is at its lowest, I suppose he would be lifting the water 30 feet.
2386. Do you think the land he was experimenting on was suitable for irrigation? Very suitable land, I think.
2387. If it pays people to irrigate at Mildura, where the water is pumped as high as 90 feet, one would think it would pay a man to grow fodder by irrigation where he has to pump only 30 feet, if the land is suitable? You would think so.
2388. Even allowing that the Mildura people have a larger market, still for a man's own consumption, that would not be of any importance to him? No; he would only want enough to keep his horses from year's end to year's end. Chaff and horse-feed, as a rule, are very cheap on the Darling when the river is open.
2389. The only time a man would need to provide against would be the time when the river was down? Yes.
2390. You do not know any other cases where irrigation has been tried on the Darling to any extent by station-owners? There is one station—up near Wilcannia—which tried it.
2391. Have you heard anything of their experience? No; I have not heard much, as it is rather too far away.
2392. What is the name of the station? Murtee.

TUESDAY, 12 SEPTEMBER, 1899.

Present:—

JOHN PERRY, Esq. (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD.  
 The Hon. ANDREW GARRAN, LL.D.  
 The Hon. WILLIAM JOSEPH TRICKETT.

WILLIAM THOMAS DICK, Esq.  
 JOHN CHRISTIAN WATSON, Esq.  
 ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

John James Phelps, grazier, Albermarle station, near Menindie, sworn, and further examined:—

2393. *Dr. Garran.*] Mr. Russell, the Government Astronomer, tells us that Menindie, which is your township, is about the driest place on the Darling;—is that your experience? I believe it is, on the river. J. J. Phelps.
2394. And that the last three years have been the driest that you have ever had? The last four. 12 Sept., 1899.
2395. How far back from the river do you go? About 80 miles.
2396. How do you water your stock in that back country? About 50 miles from the river we have a natural system of lakes, an overflow from the Darling, which we have improved by means of a dam. Beyond that it is altogether watered by tanks.
2397. You have no wells? You cannot get wells out there.
2398. Have you sunk wells? We have sunk a great number of trial shafts in that country, but we have had no successful wells.
2399. Do you mean that you got no fresh water, or no water at all? We got no fresh water. We got all salt water beyond those lakes.
2400. What was the last time these lakes were full? In 1893.
2401. Have these lakes held water for six years? No; they are all dry now, except one lake on Albermarle.
2402. And how deep are they? When they are full I suppose the deepest lake would be 30 feet.
2403. Have you deepened them at all? No; they are too big.
2404. Is there a continuous channel from the river to these lakes? Yes.
2405. And in a time of flood do you dam up the exit of the water again to prevent it from flowing back? As far as my experience goes, the water does not flow back. We have no necessity to dam it.
2406. It fills all the lakes? Yes.
2407. What is the longest time that these lakes will hold out? The only lake on Albermarle which contains water now will be dry, I think, at the end of this coming summer. The water last got into this lake in 1893.
2408. Speaking generally, you may say that these lakes will hold water from three to four years? Yes.
2409. And that it neither evaporates altogether, nor soaks in altogether? No; I tried the evaporation one year, and I proved it to be 5 feet for the year.
2410. A station like yours, if it happened to be well supplied with lakes, would be well supplied with water for three years after a flood? Yes.
2411. Would it be very costly to make an artificial lake, big enough to hold water, in any part of your run? Very costly.
2412. All the flood-water of the Darling seems to run to waste—to do no good to anybody? That which immediately comes down the river does.
2413. Nobody makes any use of that water? No.
2414. And the sides of the Darling are so comparatively level that the question naturally arises, whether by artificial channels you could not imitate nature, and carry this water back into artificial lakes, could you? No.
2415. Why not? It would be too expensive altogether for private people to undertake, and I do not think the country would justify public action.
2416. It would not pay? I do not think so.
2417. Then, practically, you are still in a state of nature as far as water supply goes? Yes.
2418. You have not seen your way to create an artificial supply of water which would be remunerative? Nothing beyond tanks and wells. We make drains into the tanks.
2419. Do you dam up the outlet, if there is any outlet? No; there is no necessity, because most of our tanks are in swamps, and the water does not run out of the swamp.
2420. The water in these dams is shallow? I suppose 15 feet would be the greatest depth we have.
2421. How long would it take to evaporate or use up 15 feet of water? We have no tank there which will last twelve months.
2422. Then your artificial supply will not last you through twelve months? No.
2423. Nature's lakes will last you through three years? Yes; but in some of the creeks we have made dams, and by the help of dams we can make the water last for two and a half years.
2424. Some of the natural creeks which you have dammed? Yes.
2425. What natural creeks other than Talyawalka have you on your run? That is the only one we have dammed.
2426. At intervals? We have dammed that creek in two places.
2427. When a flood rises in the Darling the Talyawalka is full, I suppose, from the time it takes out of the Darling to the time it goes back again? Yes.
2428. Is the country on the south of the Talyawalka flooded too? On the west side of the Talyawalka, that is between the Talyawalka and the Darling, it is pretty well all covered. After you get outside the Talyawalka there is a fringe of flooded country, and then you get into the high, safe country.
2429. There is no place where you could tap that Talyawalka Creek, and carry that water back into your run? There is no place where it would pay you to do it.
2430. The water in your series of lakes comes from the Talyawalka, I suppose? Yes; and from the river in the first place.
2431. You get it directly from the Talyawalka? Yes.

- J. J. Phelps. 2432. How far from the Talyawalka is it to the nearest lake on Albemarle? About 14 miles, I suppose.  
 2433. How long will it take the water to run from the Talyawalka to that lake? It depends upon the height of the flood considerably.  
 12 Sept., 1899. 2434. It is not a fast-flowing stream? No. I will give you an instance which occurred in one flood. The water got to Terryawinnia Lake, the first lake in the chain, in June, and it did not get to the last lake in the chain until February. The last lake very seldom gets water into it at all.  
 2435. Then a flood has to be up a considerable time to reach the last lake? A very long time.  
 2436. It has to be a very high flood to get to your last lake? Yes; we always consider that 30 feet at Bourke is the lowest river which will send water out into the back country.  
 2437. Have you deepened these channels to the lakes? No.  
 2438. If beyond the furthest lakes you are dependent merely on dams, and your dams will give out in twelve months, your back block become useless to you after twelve months of drought? That is the case.  
 2439. Then you are forced to bring your sheep into the neighbourhood of the lakes? Yes.  
 2440. Your feed gets shorter then for them, though? Yes.  
 2441. In the course of this inquiry we have had a great deal of evidence about sending starving stock to the highlands, and it has been represented by some witnesses, that if we extend our railway system from Cobar or elsewhere to the Darling, the squatters along the Darling will be able to send their starving stock eastward to the highlands, and save their lives;—do you think that is a practicable project? I do not, from my country.  
 2442. You have lost a large number of sheep? Yes.  
 2443. If you had had a railway from Menindie to the Lachlan, would it have paid you to send the 40,000 sheep which you have lost, eastward for food? We should have been sending them into the same sort of country—into starvation.  
 2444. I mean on to the highlands of New England, or the Australian Alps? It would never have paid us.  
 2445. You think that could not be done? Yes.  
 2446. You think it would cost more than the sheep would be worth? Yes.  
 2447. If it would not have paid you to send the sheep to the food, supposing there had been a railway to Menindie, would it have paid you to bring feed to your stock; could you have kept the whole of your stock alive by bringing fodder from the east? No.  
 2448. That would have cost a lot? Yes.  
 2449. Supposing your run to be as it is, pretty well, or was three or four months ago, nearly foodless, how much a week would it take you to keep a sheep by fodder brought by railway? That is a matter I have never gone into.  
 2450. I want to know what it would cost per annum to feed a sheep by fodder brought by rail to the Darling country in a dry season, and no river? That is a question I have never gone into, as far as sheep are concerned.  
 2451. Would it cost 10s. per annum? It would cost, I should say, 1s. a week.  
 2452. That would be 50s. per annum;—what would be the value of a sheep at the end of the year? It would be represented by a minus number I think.  
 2453. We have had it stated in evidence that beyond Dubbo they have been feeding sheep at a cost of a farthing per day;—would it have paid you to have sent that food by railway to feed your sheep; that is seven farthings' worth per week? I think it would be worth chancing.  
 2454. Taking the problem as a whole, we are said to have lost from 15,000,000 to 20,000,000 of sheep during the last four years of drought;—do you think it possible that on natural feed these 15,000,000 or 20,000,000 of sheep would have been saved? No.  
 2455. You do not think it would have paid the squatters to bring fodder to feed these 15,000,000 sheep where they were? No; there is a third question which arises.  
 2456. You say that all the squatters on the Darling have a small cultivation area? Yes; if you call a fruit garden and a vegetable garden a cultivation area.  
 2457. You have one, too, I suppose? Yes.  
 2458. Have you attentively extended that cultivation from time to time? No.  
 2459. Do you do anything to keep your choicest stock, your rams, safe from starvation? If we had any very choice ones we should feed them on ordinary hay, oats, and chaff.  
 2460. Where do you get that feed from? We buy it. In some seasons we grow hay. We always put in some hay.  
 2461. But it would not pay you to grow hay to feed the whole of your stock? No, we are too dependent on the rainfall.  
 2462. You mean that you might not be able to grow hay? Yes. The last two seasons we practically missed with hay.  
 2463. If you do grow hay is it better to keep it in haystacks or silos? I have had no experience of silos; we always keep ours in stacks.  
 2464. Is not that much exposed to fire? I am sorry to say that it is. We lost 160 tons of hay through fire in 1894.  
 2465. A moderate bush-fire would sweep away the whole lot of it? That is a thing we are seldom troubled with up there. This fire must have been an accident.  
 2466. There is too little grass to burn up there? It is a very rare thing to see a bush-fire of any extent.  
 2467. There are only three methods possible to keep the sheep alive;—one is to grow the feed; the second is to take them to the feed; and the third is to bring the feed to them; and I understand you to say that all these three plans are impracticable? They are—certainly from my point of view.  
 2468. Supposing the river to be in flood, could you send your stock away in barges down the river? No.  
 2469. When the country is so bare of feed you cannot even drive them? Not if we left them too long.  
 2470. If you want to get them away on their own legs you must do it early? Yes.  
 2471. If you venture to wait and wait for rain, and it does not come, you are boxed? Yes.  
 2472. Locking the river would not be of any service to you as far as feeding your flock goes? No; it would be of no use at all.  
 2473. It is only of use for the carriage of produce and stores? Yes.  
 2474. You do not think it would be of very much use for irrigation? I do not think so up there.  
 2475. Some witnesses have suggested that, in order to get a return on the cost of the locking, the proper thing



thing would be to tax the squattages all along the banks of the river;—do you think that that would be a fair thing to do? I do not think it would be fair to tax them on the whole cost of the work.

J. J. Phelps.  
12 Sept., 1899.

2476. We want to get a revenue of £22,000 from this work to make it self-supporting;—do you think the squatters within a reasonable reach of the river Darling could afford to pay £22,000 a year in consideration that they get the money's worth back—that is, between Bourke and Menindie;—do you think they would get £22,000 back? I do not think so.

2477. They would get cheaper stores? I doubt that very much.

2478. Consider what prices things have been fetching at Wilcannia during the last twelve months? Yes; but if people looked a little bit ahead, and laid in twelve months' stock, it would be different.

2479. They would have wanted to lay in four years' stock to tide over this drought? The river has not been dry all that time. There have been floods in the river. I am looking at the matter from the squatters' point of view, not from the storekeepers' point of view.

2480. During this year how long were you at Menindie without a steamer coming up with supplies? From March to August, I think. We sent our last shipment of wool in March, and the steamer which arrived with stores got up some time in August.

2481. Then Menindie has not remained unsupplied for twelve months at a stretch? Not since 1885-6.

2482. During this period of non-supply did you get anything overland from Broken Hill? One ton of sugar was all we got, and just as that arrived the river came down. We always keep a very large stock of rations, though.

2483. Do you know anything of the western side of the river, opposite to Albermarle? I do, between Menindie and Broken Hill.

2484. Does Stephen's Creek run down into the Menindie Lake in wet weather? Never.

2485. Do you know that a Broken Hill company has dammed Stephen's Creek to supply water to that town? Yes; I have seen the dam.

2486. It holds the water back pretty well? Yes.

2487. Would it be possible to dam the same creek lower down in the same way? I do not think so, because the banks are too flat.

2488. The site they have got is in a more favourable position? Yes; their site is just where the creek leaves the hills, and lower down there are no hills at all. The banks are not more than 6 or 7 feet high.

2489. It would not be possible to repeat that experiment south of Broken Hill? I do not think so.

2490. The water all loses itself? It runs into a large swamp, I believe. That dam at Broken Hill has made a very great difference to the running of the creek. It does not run nearly so often now as it used to do.

2491. Do the squatters below complain of that? No; the creek never held water.

2492. According to your evidence, if this river is to be dammed and locked, it must be done at the public expense, without anything more than can be got from a mere toll on the steamers? That is as far as I can see.

2493. £2,000 or £3,000 would be very poor interest on an expenditure of £500,000? Very small.

2494. And even that expenditure would not go below Menindie? No.

2495. If we locked the river right down to South Australia we should want £1,000,000? Yes.

2496. We are told that the most dangerous part of the river for steamers is the part between Menindie and Wentworth; that more accidents have happened there than anywhere else? Yes; on account of the snags and rocks.

2497. Do you know of any steamer being lost on that bar? I know that three steamers met with accidents on the river.

2498. *Mr. Levien.*] The steamers were not lost altogether? I know one steamer which was stuck there in 1890, and she is there yet. It was a steamer called the "Cumberoona."

2499. How old was that steamer? She was a very old boat.

2500. *Dr. Garran.*] On your run has the salt-bush pretty well disappeared? Pretty well.

2501. Have the edible bushes gone too? There is a good deal of edible scrub yet.

2502. Do you have to cut that down, or do the sheep eat it as wanted? As a rule, we have to cut it down. It is eaten too high up now for the sheep to get at.

2503. That has been the principal food they have had? In places.

2504. And at the present time, until the last rain came, the whole of your large run was fully stocked with 25,000 sheep? It is fully stocked now with 20,000 sheep, which we expect to shear.

2505. In very bad weather that is the most you can carry? Yes.

2506. Do you think you have been tempted to overstock your run in good seasons? The last time it was overstocked was in 1884. At that time we had about 130,000 sheep on 730,000 acres; that is under 6 acres to a sheep.

2507. You think it would be a mistake ever to stock it up again as fully as that? We never could do it.

2508. What do you consider now to be the average carrying capacity of the run after this experience? About 80,000 at the outside.

2509. You think it would be unsafe to go beyond that number? Yes.

2510. I gather from your answers to some of the other gentlemen that if a railway were made from Wyalong to Menindie it would not carry any of the commerce away from the river? I do not think so.

2511. You think the river would be the cheaper method of getting anything to market, and of getting back stores? Yes.

2512. A passenger or two might go down, and a few light goods, but the heavy commerce to the stations would always take the river? Invariably.

2513. *Mr. Shepherd.*] You do not think the lakes lose anything by the reaction when the river goes down? Our lakes which are on the east of the Darling lose nothing.

2514. But nearer the Darling you think they do? On the western side, Lake Menindie and Lake Pamamaroo fall as soon as the river falls.

2515. Do you not think it would be possible to prevent these lakes from returning all the water, by damming the channels? I think it is quite possible. It was tried once at Menindie Lake, but it was not tried successfully.

2516. The banks of the Darling, as a rule, are pretty high? Yes.

2517. It is only in the case of a very high flood that the lakes are filled from the river? It is only in the case

case

- J. J. Phelps. case of a very high flood that the lakes on the eastern side are filled. As regards the lakes on the western side, which are close to the river, the water runs into these lakes after the river is up a few feet; but it does not stop in them. The bottom of the channel is about on the same level as the bottom of the river.
- 12Sept., 1899. 2518. So that really there is no supply in the lakes at all as the river goes down? No; the water follows the river.
2519. And the supply is entirely exhausted? Yes.
2520. You stated that there has been some cultivation on the stations near the banks of the river;—which soil do you find the more productive? I prefer the red soil to the black soil.
2521. I suppose both soils have been tried there? Yes.
2522. Does not the black soil retain the moisture longer than the red? For fruit-trees it retains it rather too long. My experience is that the water stagnates about the roots of the trees; but for vegetables the black soil is just as good as the red soil.
2523. Is there any extent of cultivation at all, or is it only small plots which are cultivated? Small plots.
2524. No large planting for market, or anything of that kind? I believe that lower down the river, about Pooncarie, some homestead lessees are going in for wheat-growing on a fairly large scale—up to 400 acres; but I have not been down there myself since they started.
2525. They have not been long at work, I suppose? They have sold chaff and hay at times, so I presume that occasionally they get a crop.
2526. Does this spear grass, which you mentioned, grow in tussocks, or is it one regular mass? It grows in tussocks; but you might know it better under the name of cork-screw grass. It is the grass whose seed damages the lamb in good seasons. The seed gets into the flesh, and the end of it curls up like a cork-screw.
2527. To what height does it grow? In a good season I have seen it grow to 3 feet high; but that is almost too rank.
2528. Would it be possible, in a good season, to paddock certain portions of a run, or to cultivate for the purpose of making ensilage? In a really good season, up there, there is a great deal of stuff which, I think, would make ensilage—luxuriant-growing herbage. I have had no experience of ensilage myself.
2529. It is so simple now to manufacture ensilage that I should have thought it would have paid squatters to make an attempt? I have never seen it tried.
2530. Have you got the bamboo grass growing in your locality? No.
2531. It is a grass 3 or 4 feet high, which sheep are very fond of? That might be what we call the cane grass; but the rabbits have destroyed all that. It was never very plentiful; it only used to grow in swamps. We used to use it for thatching sheds—it made very good thatch; but that is almost totally gone.
2532. The lignum flats do not produce any fodder, I think? They do not produce much, except after a flood, and then they throw up a tremendous lot of herbage.
2533. Your station goes back 80 miles from the river? The frontage is about 16 miles due north and south. The station goes back 80 miles, and the water finds its way back from the river 50 miles.
2534. How do you provide water for the stretch of 30 miles? Simply by tanks dependent on the rainfall.
2535. *Mr. Levien.*] You say the water goes back 50 miles from the river;—I suppose it fairly saturates the country when it overflows? The water which goes back 50 miles is in well-defined creeks. It is not like the frontage country, which is all covered in flood.
2536. What kind of grasses do you grow there? They are all natural grasses. The spear grass is the chief grass, but there are lots of others for which we have no particular name, such as umbrella grass and lake grass.
2537. Do they last you any length of time? A great deal depends on the season, and the way they are stocked. The spear grass stands very well.
2538. That is about the best grass out there? It is about the most plentiful.
2539. And it stands the worst of the seasons? It stands longer than any of the others.
2540. How do you get your sheep into the market? We do not try to send them to market. We always sell them as stores on the station.
2541. You are merely dependent on the wool and the selling of stores? We find that it pays us better than trying to fatten.
2542. But can you fatten out there? We could fatten in a good season.
2543. How often does a good season happen? They have been very few and far between lately.
2544. Within the last five years how many good seasons have you had in which you could have fattened? One, and that was five years ago.
2545. Have you ever been in the Liverpool Plains country? Never.
2546. Or in Riverina? I have been in Lower Riverina,—about Hay and those places.
2547. Without disparaging your country, would you compare it even with Lower Riverina? No; Lower Riverina will grow wheat. Our country will not grow wheat in one year out of two.
2548. I suppose it is only in exceptional seasons that it will grow wheat there? That is all.
2549. How long have you been there. Twenty-three years.
2550. How many seasons have you had in which they could have grown wheat and hay at all during that time? We did not go in for growing it before 1885.
2551. How many crops of wheat and hay have you grown since that year? I should say about seven crops in fourteen years.
2552. Have they been successful? The heaviest crop would not exceed three-quarters of a ton to the acre.
2553. I suppose you think that a fair thing? We think that very good.
2554. Are the ears pretty full? Very full. In a good season I have seen wheat there which would do for seed.
2555. What is the nearest railway station? Broken Hill, which is 70 miles away.
2556. What is the road like between Menindie and Broken Hill? It is a very fair road provided that you can get water and feed.
2557. At one time they proposed to run water from some of these lakes to Broken Hill? Yes, from Lake Menindie. According to Mr. Russell they would have to raise the water 800 feet to take it to Broken Hill.
2558. Now, what is your opinion about that scheme? I think it would be possible. Unless Menindie Lake were dammed the water would all run out of the lake as the river fell.
- 2559.

2559. As the river falls so do these lakes get lower? They do on the western side of the river, but not on the eastern side. J. J. Phelps.
2560. You would not absolutely depend on these lakes for a supply? Not for a permanent supply. I have seen them all dry. 12 Sept., 1899.
2561. All this western country is absolutely dependent on rainfall? It is altogether dependent on rainfall. I have seen plenty of water out on the lakes, and no feed. The water was practically of no use.
2562. *Mr. Trickett.*] Do you know the Toorincaca bore, which was started about 30 miles from Menindie in 1895? Yes.
2563. At the end of 1896 they were down about 1,100 feet, and had got no results? No.
2564. Has it been more successful since that time? I think the bore has been abandoned. There was another bore put down between there and the river, which was also abandoned.
2565. They did not get water? No.
2566. They got brackish water, and when they got under the hard stuff they struck no artesian water? No.
2567. There is no hope of getting artesian water out there, to judge from that experiment? Not at that depth. If they went down 5,000 feet, as I believe they have done in other bores, they might get artesian water; but I do not think the country would pay for that. It is not like Queensland country.
2568. At a reasonable depth, such as we generally go to in other parts of the Colony, they have not been able to get artesian water out in that country? No.
2569. What water have they got? We have wells on the run. The deepest well we have is about 120 feet.
2570. Is that good water? Fresh water.
2571. You pump that water up for the stock? We cannot get it everywhere; it is only guesswork.

SATURDAY, 23 SEPTEMBER, 1899.

[The Committee met at the Court-house, Bourke, at 10 a.m.]

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Frederick Hersey, farmer, Pera Bore, near Bourke, sworn, and examined:—

2572. *Chairman.*] How many miles is Pera Bore from Bourke? Across the punt we reckon it 9 miles. F. Hersey.
2573. How many years have you been at Pera Bore? Three and a half years.
2574. You are the holder of one of the 20-acre blocks, which you leased from the Government at a rental of £5 per annum? Yes. 23 Sept., 1899.
2575. That is, including the use of water from the bore? Yes.
2576. Under what conditions? We agreed to get 21,000 gallons per day, but we have not got much more than half of that quantity.
2577. Owing to the bore not being sufficient to meet the requirements of all, you have not received more than about half that quantity? I would not say that; but considerably less than we agreed to have.
2578. How long has that happened—all the time you have been there? No. Only during last summer I felt the want of water so badly. For the first two years I was there only ten blocks were taken up.
2579. How many now? The whole of the twenty; but some of the holders are not residing on their blocks.
2580. *Mr. Dick.*] Can you give the Committee any idea of the number of gallons per acre per annum which you consider necessary to successfully irrigate your block? No, I cannot; but every watering it requires less. I think the more watering it gets it will not absorb the water so much. At the first watering it requires nearly double as much as at any other watering. With that bore water, after the ground has been watered six or eight times I think that the water will not soak into the ground, but will lie on the top of it.
2581. Do you mean to say that there is something in the composition of the water which brings about a difficulty with regard to waterings after the first or second? I cannot say whether rain water would cake the ground the same as the bore water does.
2582. Have you experienced any serious inconvenience from the diminished flow from the bore during last summer? Yes.
2583. Sufficient to imperil the prospects of your block as regards making it pay? Yes.
2584. Will the supply from the new bore be sufficient to provide enough water for all hands there? Only in ordinary seasons. Of course, we do not yet know what the supply from the new bore will be; it has not been fully tested.
2585. Presuming that the supply from the new bore is at least at large as the present output of the old bore, with the two combined the supply should be ample? Yes.
2586. Have you had any previous experience in irrigation? Yes, when I was on the Darling.
2587. On what part of the Darling did you gain your experience? Eleven miles this side of Louth.
2588. What was the area you had under irrigation there? Only a small vegetable and fruit garden—about 4 acres.
2589. With a pumping-plant? Yes; a Tangye plant.
2590. Presuming that the river Darling were locked (say) from Bourke to Menindie, do you anticipate that the various landholders along the locked course of the river would avail themselves of the water of the river for the purposes of irrigation? Yes, I think they would.
2591. Can you say why very few of them have done it now when the river is not locked? No, I cannot. They have tried centrifugal pumps; but the water being so low, they will not carry it up from the bed to the top of the bank. For instance, at Gundabooka the pump would not work successfully.

- F. Hersey. 2592. In view of your statement that they are likely to take up irrigation, what crops do you think would be grown along the river? All sorts of green crops—fodder crops principally, because having so many dry seasons the expense for fodder is very great.
- 23 Sept., 1899. 2593. We have it in evidence that the land immediately adjoining the river is not of good quality for cultivation, and that to get land of better quality you have to go a short distance away from the banks of the river;—is that your experience of the river? Where I was, there was as good soil as you could possibly get on the bank; but that was red soil.
2594. Are those patches of frequent occurrence along the river? No; there are not many of them.
2595. Do you think that having to go far back from the river would impose a serious difficulty in the way of successful cultivation? They would have to go a good way back in some places. The higher country not likely to be flooded is the better soil.
2596. What distance back from the river out of the flooded area is there good available country? I do not know. On almost every holding down the river you would get good country right at the water's edge.
2597. Would the produce grown on those irrigation areas be for local consumption, or do you think that there is any chance of the landholders exporting produce, in case the river were locked? This soil on the river is suitable for onion-growing, and onions would realise about £10 a ton in Bourke. We get them very early. This soil also seems to be very suitable for grape and raisin growing. The grapes appear to be free from disease. Apricots and peaches also do well on the river—all citrus and dry fruits do well.
2598. The Pera bore cost a certain amount of money to sink, the fluming and various other apparatus also cost a considerable amount;—do you think that it would pay a private individual to take up an area like that around a bore and cultivate it in the way the land is being cultivated at Pera? No.
2599. On what grounds do you base your statement? So far it is only an experiment. At the annual rent we are paying some of us have scarcely made a living. I have lived on it, but I know that the annual rent we are paying would not pay interest on the money expended in connection with the bore, and it would not pay a private individual to sink as much money in such an enterprise.
2600. Then, so far, you think that the Pera Bore settlement is yet in the experimental stage, and is practically on its trial? Yes.
2601. Which, in your opinion, would be the cheaper, for a private individual to undertake irrigation by means of a bore, or by pumping water on to land close to the river? Very much cheaper to pump from the river.
2602. Can you give the Committee some idea of the crops which have been taken off either your own holding or some of the other holdings, with the use of the bore water? I have not kept any account of it.
2603. What have you yourself grown there? Our summer crops are pumpkins and melons. We have a fair market for them, and they do very well there.
2604. Have you grown any fodder crops? Yes.
2605. What was the yield of any of those? I cannot say. I have sent most of my fodder crops to Bourke for green feed.
2606. Within your personal knowledge are there any areas close to the banks of the river where a number of small holders could combine, and by dividing the cost of pumping appliances cheapen the cost of irrigation to themselves? Yes; at Redbank.
2607. What area of good soil is there? Unlimited—tens of thousands of acres. The Redbank is almost a perpendicular bank, and there is a fall from the river bank over a large area. At East Toorale there is also a red bank, and at Myrtle Vale there is a good, high, perpendicular, red bank close to the river, and that soil goes some distance back.
2608. *Mr. Watson.*] You stated, in reply to Mr. Dick, that after a few waterings with the bore water the ground seemed to absorb less than it previously had done? Yes; considerably less.
2609. Do you know any way by which to account for that;—do you think that because of the subsoil becoming moistened there is less room for water to go down, or is it from the ground caking? From the ground caking, but even when broken up it does not take so much water.
2610. Then it may be attributable to the moisture being below? It may be.
2611. Do you think there is any element mixed with the water which encourages caking? Yes, I think so.
2612. You cannot tell whether ordinary rainfall would do that? No, I cannot.
2613. You had a fair fall of rain there recently, between 3 and 4 inches, had you not? Yes.
2614. How long ago? About a month.
2615. What effect did that have? It did not cake the ground the same as the bore water does.
2616. What depth of water do you put on one block, with a fair watering? I do not know. Some ground will absorb so much that I do not know how many points it would reach.
2617. You have never tested it in any way? No.
2618. You say that you were pumping water for irrigating about 4 acres near Louth? Yes.
2619. Did you find there the same tendency to cake? No. I planted my crops there in the bottom of the drains; but at Pera I plant them on ridges, because the land cakes so hard.
2620. From that it would appear that the river water is much more suitable for irrigation? Yes, undoubtedly, it is more suitable. Then, again, the land near the river bank may have more sand in it.
2621. But it is not usually so, is it? It was rather lighter soil where I was, near Louth, than what I am working now at Pera.
2622. So it is possible that the nature of the soil may have had some influence? Yes.
2623. Is there a considerable area of land similar to that where you were near Louth? Yes, at Myrtle Vale, a homestead lease—thousands of acres.
2624. Close to the bank of the river? It is flatter country, and the water would run back, perhaps, a mile.
2625. Does the land slope away from the river? Slightly; but it is fairly level. It would not require much force to raise the water high enough to send it back.
2626. And you say that there are thousands of acres which would be just as suitable for cultivation as the land you were using? Yes.
2627. Do you know the country well between here and Louth? Yes.

2628. Are there plots of land suitable for irrigation distributed along there? Only three.
2629. Of what area? Almost unlimited. Where you get a redbank like that it is flat for miles back from the river. The first is at Redbank, which is 30 miles from Bourke by road, and then Gundabooka has a high bank.
2630. How far from Redbank is Gundabooka by road? Seven miles.
2631. Below that, what is there? East Toorale. That is reckoned 7 miles from Gundabooka by road. There is also Clover Creek which almost adjoins Myrtle Vale, which is where I was.
2632. Between that and Louth are there any similar spots? No; Myrtle Vale is the last high red bank. There are other suitable spots, but with very high floods they become flooded. All those I have mentioned are above flood-level.
2633. And all sufficiently light soil to be suitable for irrigation? Yes; all of them have good light soil.
2634. That would be five places between here and Louth? Yes.
2635. How does the river mileage generally compare with road mileage? Three to one it is reckoned at.
2636. Between here and Redbank, which is 80 or 90 miles by river, there is no place that you know of fit for irrigation? No; not land that is above flood-level.
2637. In the scheme that we are considering there would be four locks and weirs between the existing weir and Redbank, and the first three of those, embracing 50 or 60 miles of river, would not have adjoining them any land fit for irrigation? I do not say that; but for permanent irrigation blocks you want high country. Between here and Redbank two stations—Yanda and Jandra—are both irrigated; but not on land above flood-level.
2638. You consider it necessary, then, for permanent irrigation that the land should be above the flood-level? Yes.
2639. Do you know anything of the results of the attempts at irrigation on the stations you have just named, below flood-level? No, I do not.
2640. Where is your outlet for the produce from your farm at Pera? Bourke and Cobar.
2641. What do you send to Cobar? Melons and pumpkins.
2642. In truck loads, I suppose? Yes.
2643. Is the freight for such goods reasonable between here and Cobar? We deliver on the trucks at Bourke, and our customers pay the railway freight; so I cannot say exactly what it is.
2644. Still you are able to compete with the people of the coastal districts in the supply of those things? Yes.
2645. For other produce your market is Bourke? Yes.
2646. That is for fodder, I suppose? Fodder and vegetables.
2647. Do you think there is a fair outlet in and around Bourke for the produce of as many farmers as there are now at Pera? Yes; there has been no difficulty so far.
2648. But your holdings are not bearing to the full extent yet? No.
2649. How do you think you will get on when they are;—will you rely solely on Bourke, or also seek other markets? We shall seek outside markets. Some of us intend to go in for raising crops or drying fruits. We are raising vegetables only to keep us going until then.
2650. Do you think that there is a fairly large outside market for dried fruits? I think so.
2651. You have no doubt about finding a market for them? Not the slightest; and no doubt Bourke also will consume considerably more dried fruits than we shall produce for some time to come, because dried fruits are used to a great extent in this climate.
2652. Have you any idea whether the freight on dried fruits would be heavy—I mean in proportion to the value of the fruits? I do not think so.
2653. Supposing that a number of similar settlements were existing along the river, using, of course, pumped river water for irrigation, would there be a reasonable chance of their getting an outlet, first by river, and thence by rail to Sydney? I think so.
2654. You do not think that the distance and cost of freight would be prohibitive? I do not think so.
2655. Is quick transit a necessity for dried fruit? No, it is not.
2656. So the slow transit down the river, if cheaper, would be preferable for that? Yes. This climate is suitable for fruit-drying, because we do not do it by means of an evaporator, but by natural means.
2657. I should imagine that fruit dried in the natural way, without the use of an evaporator, would be better from a market point of view? No; I think it would be only equal.
2658. Then, speaking generally, from your own experience of irrigation, you think that land and water are the only things required;—you have no doubt about the market? No, I have not.
2659. Assuming the bore at Pera to continue to give out water in sufficient quantities, are you satisfied with your own prospects of making what you are doing there a success? Yes.
2660. You think the caking could be overcome? Well, for fruit-trees you do not require to use so much water.
2661. And consequently the land does not cake so much? No, it does not.
2662. Is there any method of keeping the land freer than it is naturally? Only by manuring. That keeps it looser on the top.
2663. You can counteract the influence of the water so far as caking is concerned by the addition of manure or other substances? Yes.
2664. *Mr. Shepherd.*] How long were you cultivating the 4-acre block you spoke of? Two or three years.
2665. What kind of crops were you raising? Vegetables—principally for supplying the shearing sheds during the shearing seasons; they constituted my principal market.
2666. There you pumped the water from the river? Yes.
2667. Did you find that the 4-acre block paid you for cultivating? Yes. I kept it all under cultivation all the while.
2668. You were able to make a living off it? Yes.
2669. You say you have not been able to get sufficient water at Pera bore? No.
2670. Do you think that that was in consequence of the falling off in the supply, or was it from other causes? No doubt it was from the falling off in the supply.
2671. Have you any idea what the proportion of the falling off was? The decrease was one-half.
2672. At what period did the falling off take place? It was not noticed until the beginning of last summer.

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 2675. There is evidently something of a clayey nature in the soil, and it becomes puddled? That is it. We have to use a Planet Junior, and go through after every crop for the purpose of keeping the surface loose.  
 2676. What description of crops have you been growing at Pera bore? Pumpkins, melons, onions, peas, and cabbages.  
 2677. All garden produce? Yes. I have also grown amber cane and millet for fodder.  
 2678. Do you find that any particular crop requires more water than other crops? No; I have not noticed that.  
 2679. How do you regulate the quantity in irrigating? Only by the appearance of the crop. We irrigate when the land seems to want water. In running the Planet Junior through, you can tell whether it is moist or not.  
 2680. How far are your open drains apart? According to the crops—for growing amber cane or other fodder crops, about 2 feet apart. This water will not soak very far.  
 2681. And for vegetables? About 2 feet; and for peas about 2 feet 6 inches.  
 2682. It is pretty well a dead-level were you are irrigating? Yes. We have to grade it a little.  
 2683. How long do you keep the trenches full? Until the water gets to the end of the trench. We fill it up once and then turn the water off.  
 2684. The one filling, then, affords a sufficient supply for the time-being? Yes.  
 2685. Supposing you have no rain after the filling of the trenches, how long is it before you require to fill them again? For some crops, a week.  
 2686. Does that not seem rather frequent? Not for some vegetable crops. Cabbage or lettuce grown in summer-time will not go long without water.  
 2687. It depends on the weather? Yes. In the winter it may be two or three months, but in summer the ground requires watering frequently.  
 2688. Do you know how many settlers there are holding land at Pera bore? Twenty are holding it, but some of them are away.  
 2689. What is the area generally allotted to farmers wishing to take up land there? All except two are 20-acre blocks, and two are 24 acres.  
 2690. You have to clear and fence the land yourself? Yes.  
 2691. Does each holder fence off his own 20 acres? At the ring fence around the old station it is netted, but each holder has to fence his own block.  
 2692. Do the settlers seem pretty well satisfied with the results? No.  
 2693. You say the rent is £5 a year for 20 acres, and that that includes the supply of water? Yes; it includes everything.  
 2694. There must be something very defective, then, if a man cannot make a living off that;—what is the reason? I think the principal reason is that they do not know anything about cultivation or irrigation.  
 2695. Are they not being instructed in any way? Yes.  
 2696. It is a funny thing for a man to take up an occupation he knows nothing about;—is there no one there who is supposed to give instruction? There is the Government experimental farm, and the manager gives any information they want.  
 2697. Are not meetings held which these people are invited to attend for the purpose of getting instruction? No.  
 2698. So that each man does the best he can for himself? Very few of the people there know the crops suitable for the climate or the time for putting them in.  
 2699. Are there no means of ascertaining? Only from experience.  
 2700. There is no information, then, to be gained as to the kind of crops to grow and the proper time to grow them, if the people there ask for it? I suppose that the manager of the Government farm would tell them, but I do not know any one who ever went to ask for it.  
 2701. Does there seem any disposition on the part of the people there to go for information, or do they prefer to go on in their own way? They prefer to go on in their own way.  
 2702. *Chairman.*] Then you look upon this Pera farming settlement as a failure? I cannot say that; but most of the settlers there look upon it as a failure.  
 2703. Are the majority of the men there doing anything besides farming? Yes; all of them, except three or four.  
 2704. What do they do? Some are carriers, some shearers, and some general contractors.  
 2705. Supposing the whole of the twenty farms—equal in round numbers to 400 acres—were in full swing under cultivation, would there be a local market sufficient for the produce? No, there would not be.  
 2706. I suppose that the distance from Sydney and other centres of population would be too great for the settlers at Pera bore to send perishable vegetables and fruits to those places, would it not? Yes, it would be.  
 2707. Do you think that if there were really practical farmers at Pera bore—men who are skilled—they would be able to do better? There is no doubt of it.  
 2708. Is there a paucity of that kind of farmer, or is it that the right men have not come to Pera bore? That is it—the right men do not seem to have come there.  
 2709. Farming by the process of irrigation is, I suppose, a special kind of farming, and requires special knowledge? Yes.  
 2710. And you do not think that the men at Pera bore have that special knowledge? They certainly have not.  
 2711. As regards local markets, you say you have sent some produce to Cobar;—besides Bourke and Cobar, what other local markets would there be for the produce grown at the Pera farms? I have also sent produce to Byrock and Coolabah. There is not much of a market for perishable goods, but when the river is navigable there is a market at Louth and Wilcannia. However, the river has been navigable only a very short time since we have been at Pera.  
 2712. To make that kind of farming a success it would be necessary that you should produce citrus fruits, or fruits capable of being preserved and sent to distant markets—that is the future of that kind of farming? Yes.

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2713. Are there any fruits at Pera of that kind? Yes.
2714. What fruit-trees have you on your own holding? Six hundred.
2715. What are they? Principally apricot and peach.
2716. Are they doing well? Yes, very well.
2717. And, if those keep on doing well, you propose to preserve and dry those fruits? Yes; they are all drying varieties.
2718. Could that industry be carried on profitably at Pera, considering the distance from Sydney? Yes, I think so.
2719. Are any other holdings at Pera planted to that extent in that way? Yes.
2720. How many? Seven have the same area planted with trees as I have.
2721. Are those the men who chiefly do nothing else but look after their farms? Yes, principally.
2722. After a tree is planted there, how long is it before it will bear fruit? Three years before it is payable.
2723. You are looking forward to the next season to get crops from your trees? Yes.
2724. What do you do with the remainder of your land? I am growing fodder crops and vegetables and melons.
2725. What do you do with your fodder? I have been sending it to Bourke.
2726. Have you any special crop? Principally barley and lucerne—lucerne in the summer, and barley in the winter.
2727. How are your crops of that kind getting on now, with very little water? Without water we did not get any crops of lucerne, or not until very late. Of course, the barley does not require water in the winter.
2728. How often do you get water? We get it for twelve hours every four and a half days.
2729. Is that sufficient? At present it is, but could we get more water we should put in more crops.
2730. How much land would that supply? For fruit-trees it would supply 15 acres.
2731. What are you using your water for? Various crops—melons, pumpkins, and peas.
2732. How much is that short of what the Government proposed to give you? I think it is about half. We get it in turn, every settler the same. It comes round in sections. We used to get it at first as we ordered it.
2733. Then the Pera Bore settlement, looked at independently of the Government experimental farm, and as a reproductive work, is not very productive to the State;—do you think it is fairly payable to the Government? No, I do not.
2734. Which do you think the better, watering that kind of land with bore water or with river water? The river water, undoubtedly.
2735. And with regard to the character of the soil, for agricultural crops, which is the better—the red soil? Yes, for some crops, but the black is better than the red for others. Onions do much better on the black soil, and that would be the principal crop here. They do fairly well on the red soil, but not nearly so well as on the black.
2736. The advantage of the red patches is, I suppose, that that land is above flood-level? Yes, and it is much better for pumpkins and melons, and for fruit-trees.
2737. It is more easily worked than the black soil? Yes.

Arthur Senior, wool-scourer, near Bourke, sworn, and examined:—

2738. *Chairman.*] Where do you reside? Two miles from town, down the river.
2739. How long have you been there? Five years; but I have been on the river twenty-one years.
2740. *Mr. Watson.*] Have you had any experience in irrigating there? A little. I am doing some at present. A. Senior.  
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2741. By means of pumping machinery, I suppose? Yes. I utilise the scour water.
2742. Is it suitable for that purpose? Yes, the best of it. We do not put the soapy water on. We utilise only what we call the rinsing water.
2743. Is your land below or above flood-level? It was all flooded in 1890, but an ordinary flood would not go over it.
2744. What is the class of soil? It is mostly black.
2745. Of a clayey character? Yes, inclined that way; it is stiff. We have some loamy soil as well, but not very much.
2746. How has your irrigation turned out so far? It has been very successful.
2747. What do you grow? I have wheat, oats, skinless barley, and the ordinary Cape barley. I am experimenting to see which crops are most suitable for the climate.
2748. Have you been irrigating long? Only about two years.
2749. And only for fodder? Yes, just for my own use.
2750. Have you gone into the figure aspect of the matter, to see whether it pays you better to pump water out of the river and grow fodder, than it would pay you to import the fodder? Well, during the washing time there is no further expense; but during six months of the year I have to raise water independently of the scour. During the washing time we always have steam in the boiler, and there is no trouble in putting the pumps on. I lay myself out for irrigation, because I believe it will be cheaper and better to grow our own fodder. We get very inferior stuff sent by rail sometimes.
2751. What has been the price of fodder here ordinarily? It has been from £5 to £6 for the last two years until recently. Now it is down to £4, since the rain.
2752. What has sent it down—the larger quantity of fodder offering in the places from which it is usually brought to Bourke? I suppose the rain has had something to do with it. Any horses not doing much work now can be turned out and can live on the herbage, and there is a surplus of fodder in the farming centres.
2753. Where does it usually come from? Dubbo, Orange, and Wellington.
2754. Your experience, seeing that you are using some of the water twice—once for wool-scouring and again for irrigation—is hardly one upon which you can base figures as to the probability of the undertaking paying under ordinary circumstances? I have no doubts on that score—at proper places where an irrigation scheme could be carried out without an expensive plant. I am satisfied that irrigation is paying at more than one place on the river. If it had not been for irrigation they would have been in

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- a terrible mess at the present time. They put away stocks of lucerne and other fodders, and they make it a rule to keep on irrigating and growing these crops as a stand-by. Winbar station is, particularly, one in point. Mr. Thomas told me that if it had not been for lucerne they would have been starved out, and would have had neither horses nor cattle left.
2755. As to the navigation aspect of the question that is before the Committee—have you given that any consideration? A little.
2756. As to sending away wool and other produce from the district towards the coast by the river, I understand that latterly people have been depending on the railway pretty well, owing to the river being down? Yes, considerably so. We have practically had no river the last few years; in fact, during all the dry time we have been deprived of the benefits of the river.
2757. I do not suppose that a temporary rise in the river would assist production by means of irrigation, to any material extent? Of course, we should have cheaper facilities for carriage if we had to buy that kind of thing; and if we had a reasonable level in the river upon which people could rely the probability is that they would go in more for irrigation plants, but when the river fluctuates as it does, down to bedrock almost, you want an expensive plant to raise the water on to the high banks suitable for irrigation.
2758. The engineers tell us that weirs above 10 feet in the river would be rather dangerous, and the greatest difference in height with the locking of the river would only be about 10 feet;—do you think that that would make any considerable difference as to the encouragement of irrigation? Yes, I do. With a uniform level, people would know exactly what water a certain-sized boiler and pump would supply per acre.
2759. Do they ever run short of water now for irrigation purposes? There has always been a certain quantity in the river, but at such a low-level, sometimes, that it was very expensive to raise it, and people have not gone in for it extensively.
2760. You are, perhaps, aware that the question of irrigation in connection with the locking of the Darling is only incidental, and that the main matter before the Committee is that of making the river navigable so far as the locks will be extended;—do you think that the expenditure that would be necessary to lock the river is justifiable from the point of view of navigation, leaving the matter of irrigation out of consideration for the time being? Yes, I do. I think it would be of great advantage to the Colony generally, and more particularly to these arid districts.
2761. In what way? I must bring in irrigation now.
2762. Leave that out, and take only the question of navigation; you have already stated that you think that irrigation would be materially encouraged by the provision of permanent supplies of water at a standing level;—but how do you think it would help the people in the way of navigation? I think it would induce people to settle on the land if they could rely on the water carriage to bring goods to their doors at a reasonable rate.
2763. You know that we have a very large area of Crown lands in the basin of the Darling generally? Yes.
2764. Do you think that the locking of the river would enable these lands to be settled in smaller areas? I do; I think that the absence of it is one of the things which is keeping settlement back.
2765. Why? Because people have no inducement, and men with small capital cannot attempt to settle down under present arrangements.
2766. You think that the fact of supplies being cheap and certain would encourage men with small capital to take up blocks in small areas? Yes; and we should be able to raise our own produce.
2767. Do you know how many sheep a man would require in order to make a living in this part of the country? I know some men who are making a living with 5,000 or 6,000 sheep; but I do not think they are making a fortune. I know some men who are pretty comfortable with that number; but they did not start with a big handicap upon them.
2768. What area should a man require to carry that number in an ordinary average season? On the river frontage they have from 4,000 to 6,000 sheep on 10,000 acres.
2769. Would those men have only one block for their sheep? They would have only one block, but it would be divided, of course, into paddocks.
2770. That is a pretty good-carrying capacity? That is only in good seasons. I am not alluding to the present time, for some people have not 2,000 sheep on their block.
2771. If they had 2,000 sheep now, it would be a sheep to 5 acres? Where I originally got fifty bales of wool, I am now getting only from fifteen to twenty.
2772. Do you know whether the placing of the homestead lessees on land, mostly along the frontage of the river, has resulted in more sheep being carried than were previously carried by the larger holdings? That is a question I can scarcely answer, because this country has been gradually deteriorating in regard to producing good grasses. Grass which you could see fifteen or sixteen years ago, such as Mitchell grass, you cannot see now.
2773. Is that from overstocking? I cannot say. It may have been owing to the seasons. From 1895 we have been gradually going backwards until the present. There had been no seeds spreading.
2774. How do you send your scoured wool away? Always to the train.
2775. Would it pay you better when the river is up to send it by train? That is a matter for my constituents. I do not buy from them, but merely scour on commission.
2776. Do they prefer the Darling? They have to depend on the train, for if they get it on the river it may be delayed nine or twelve months. I have known wool to be lying on the steamer when sheep were being shorn in the sheds the next season.
2777. So not much wool has gone down the river from Bourke? I have known several clips go down the river from Bourke, but not much.
2778. Does much come down to Bourke? Yes; whenever the river is navigable. Many a time the river is navigable to Bourke, but not lower down.
2779. So wool that comes from higher up the river is generally transhipped at Bourke and put on the train? Yes.
2780. Does that occur often when there is a fair river? Yes; sometimes we have a navigable river here when the Murray is not navigable, or there may be a high Murray and a low Darling. It amounts to the same thing.



2781. You think that the wool would go by river if the wool-growers could depend on the water all the way? I think that any wool shipped on the river would be taken right through, and not taken off the boats and put on the train. A. Senior.  
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2782. So we may anticipate that if the Federal Government should take up the question of locking the Murray, and if the Darling also be locked, the heavy traffic of wool will probably go by river, and not by rail? Well, it is just a question whether people will test the local markets previous to shipping. Some people might prefer to test the local markets, and then, if they did not get a satisfactory offer, ship their wool.
2783. Do you think it is likely that Sydney will present better chances in the way of a wool market than Adelaide or Melbourne, which might be reached by going down the river and a short distance by rail? At the present time there is an idea in some people's minds that Sydney is really the market of the colonies for wool.
2784. There is a great number of foreign buyers there usually? Yes.
2785. Do you think that they attend the Sydney wool sales in greater numbers than those of other colonies? Well, Victoria stands second, as far as that goes. I think the buyers like to see the wool first-hand, and they can take a second chance in London afterwards if necessary.
2786. You think, then, that the idea of the selling of wool at Sydney will grow with people and become of greater importance year by year? Yes; I think that Sydney will be the leading market of the colonies as regards wool sales.
2787. And, if that were so, it might pay the wool-growers to give the railway more in freight, in order to get their wool to the market where the greater number of buyers would be? Well, they are guided a good deal by how the London market happens to be, and they may catch it by sending the wool by rail, whilst they might miss it by sending the wool by river.
2788. What is your own opinion as to which would be used in preference;—assuming an open river to the coast to be guaranteed, which would get the greater amount of traffic of a heavy character—the river or the railway? I do not think there would be very much advantage in locking the river right through just now. I do not see the force of opening the whole of this river to the other colonies at present. We should perhaps wait until we see what Federation may accomplish.
2789. You think that the partial locking of the river would attract trade towards Bourke? I do.
2790. Supposing the river were locked between Bourke and Menindie, how far do you think the attraction of the Bourke railway would extend? Well, unless the river were navigable below the locks, it would sap the country from Wilcannia up. Wool comes from Wilcannia now. I have wool now from Buckanbie, Rosedale, and Budda.
2791. What does it cost those people to send their wool to you? On an ordinary river it averages from £1 to 25s. a ton.
2792. And after it is scoured they have to pay rail freight from Bourke to Sydney? Yes.
2793. What is that freight? About £5 a ton on scoured, and £4 on greasy.
2794. That would be a total of £6 5s.? Yes. It varies a little according to the river.
2795. Well, say £6, cost between Rosedale and Sydney? Yes.
2796. We were given to understand that the freight from Wilcannia to Adelaide was much less than that? Well, it all depends on whether it is going by a long river or a short one. They vary the freights accordingly. I have known the freights from Bourke and Wilcannia to be £3 10s. and £3 per ton; but that was only because there was a short river.
2797. *Chairman.*] I understand you to say that if this project were carried out, and the river were locked from Bourke to Menindie, that would in all probability make that portion of the river a feeder to the Bourke railway? Yes, and also induce settlement.
2798. What extent of cultivation have you where you reside? I have not very much—about 16 acres or 18 acres, and it is not all under crop at present. Last year I lost nearly all I put in, because we could not pump sufficient water to keep it going.
2799. You seem to be favourable to irrigation on the holdings along the river banks;—do you regard that cultivation as practicable to the extent of feeding large flocks? I do not know that you could go in for irrigation for ordinary flocks; but you could save the stud flocks by this means.
2800. Take a man with 40,000 or 50,000 sheep;—is it possible for him to go in for cultivation by irrigation with a view of feeding a flock of that size? I do not think so.
2801. Well, then, as an aid to a large grazing holding, to what extent do you think a man could profitably go in for cultivation for his stud flocks, horses, and cows? I can hardly answer that question, for if you take up such an extensive piece of country for irrigation, you must have an expensive irrigation-plant, and then comes in the question of cost.
2802. Do you think that a man could with advantage cultivate 100 acres or 200 acres? That would be the outside; but even on 50 acres or 100 acres he could grow a grand stand-by.
2803. If he were to do that, and good seasons were still to prevail, could he not keep his fodder in stacks? Yes, he could stack it up for a dry day. If a man has more than he can do with, and puts it under cover it will come in handy some time.
2804. The wonder seems to us to be that this has not been gone on with more than it has, and it seems to be a general inquiry, "If this could be done, why has it not been done?" Here are men with holdings along the river, where fairly small pumping plants could bring up water of which they could avail themselves, and still it has not been done—how is that? Previous to 1893 we were never in such a fix as we have been since, and we have had to adopt different means to meet the times of scarcity. Men have to resort to all possible schemes now to save money, whereas they did not have to do that before the Bank smash, for until then you could always get advances when you required them.
2805. Even in an ordinary drought a stand-by such as we speak of would be a great advantage, would it not? Yes; I do not think that anyone will ever lose the chances again—he will always try to have something to fall back upon.
2806. And therefore you think that if the large holders could with advantage pump the water a reasonable height from a constant river, they would go in for that? Yes, I am sure they would; in fact they are doing it now.
2807. The impression seems to prevail that you should go in for irrigation only on land that is not subject to flood? I do not think there is anything in that. Usually, the Darling country generally is subject

- A. Senior. subject to floods, only like the 1890 flood; but in 1879 we had a reasonable flood, and we had to go as much as 15 miles from the river in order to get down the river.
- 23 Sept., 1899. 2808. You think the graziers would chance their land being flooded? Yes. As a rule when we have good big rivers extending back we have more rain. It seems to draw the rain. If we have a low river we do not get any rain. With regard to the land adjoining the river banks, it has been stated that that land is of a clayey character, apt to cake and crack when treated with water. There is something in that statement; but that state of things is to be met by treatment in the way of manuring the ground. For instance, if you irrigate the land to-day, in the course of a week you will see cracks appearing again, and unless you run a scarifier or a Planet Junior through and break it up it will cake; but once the land is worked it does not require the same amount of irrigation to keep it going; but you must keep it worked.
2309. So it is a little more troublesome and expensive than the red soil above flood-level? Yes. Our ground here does not cake with the river water as a rule.
2810. *Mr. Shepherd.*] You say that this black soil is apt to crack a good deal? Yes, in places.
2811. Have you had much experience in cultivating that soil? Not here.
2812. Have you ever seen any of it that has been well drained? No; I cannot say that I have.
2813. You have been a long time resident in this district? Yes; twenty-one years.
2814. And you have been irrigating land about five years? Only about two years.
2815. What area have you been cultivating? I have about 15 acres there, but have not a crop in the whole of it now. I grow all my own vegetables. It is black soil where the vegetables grow, and so also is some of the wheat land.
2816. You have not tried draining? No; I merely dig the ground.
2817. What do you manure with? Just the ordinary stable manure.
2818. You spread it over to a depth of 3 or 4 inches? Yes; and work it in with scarifiers or harrows. We mulch the small plots used for vegetables.
2819. Have you been pretty successful in producing crops on this land? Yes, so far. During the last dry season I had a splendid crop of amber cane and skinless barley.
2820. Have you any idea how much water it took per acre to irrigate those 15 acres? No.
2821. How often did you irrigate? Perhaps a fortnight between each watering—sometimes a month.
2822. How many days did you take to pump water in order to irrigate the 15 acres? We only irrigated a patch at a time.
2823. You kept no record? No. A portion of the ground was put in with wheat as a chance crop.
2824. Have you noticed the various kinds of pastures in the district? I have.
2825. Have you noticed the disappearance of any of them? Yes; the Mitchell grass, or blue grass, in particular.
2826. Have you been able to account for it in any way? Only on account of the dry seasons we have had, no seed being left to germinate again.
2827. Do you not think that overstocking has had something to do with it? I do not put it down to overstocking, but to the rabbits.
2828. And the saltbush has disappeared to some extent? Yes. I have a little in my paddocks.
2829. Have you heard of any proposal to shut up these areas for the purpose of preserving these grasses? Only what I have seen in the papers.
2830. There has been very little attempt, I think, to sow artificial grasses? I do not remember any, except that I put some in during the last rain.
2831. What kind of grasses? A general mixture for a dry climate. I have about half a dozen different sorts, all mixed.
2832. In your opinion the locking of the Darling would assist the taking up of smaller areas? Yes.
2833. In what way would it assist that? As regards better facilities for getting supplies and sending produce away. We should have a navigable river and reasonable freights.
2834. Is much produce brought to this district from distant parts? Yes.
2835. Maize, oats, hay, and lucerne? Yes.
2836. You are of opinion that the locking of the river would induce people here to produce those things themselves? Yes; produce a lot of them.
2837. But in connection with that, I suppose it would be necessary to irrigate? Yes; they would have to irrigate.
2838. We have had it in evidence that the river would not afford sufficient water to irrigate to any extent;—what is your opinion about that? I think there is nothing in that. Thousands of tons of water get to the sea in seasons like the present. A good river if locked would throw the water up the creeks and back channels, and wherever that water lies there is always a certain amount of good picking to be got.
2839. The misfortune is that, at the time you would require to irrigate, the river would be at its lowest, and you could not get the supply you would require? I have seen good rivers here. At one time we had a navigable river pretty nearly every year.
2840. Taking one year with another what is the average period that the river is navigable? I do not know. I have not studied that matter much.
2841. *Chairman.*] You mentioned something about the rabbits doing great injury in this district? Yes.
2842. Do they not regularly eat the roots of the grasses? I believe they pull the whole thing out. I have poisoned thousands of them. The rabbits are more destructive than any stock would be, because they scratch the grasses out. I believe that is the cause of the present depression here.
2843. They destroy the grasses more than the sheep do? Considerably. The sheep do not root it up, and they do. They go straight for the roots and scratch it out.
2844. *Mr. Watson.*] Do you know the river between here and Louth? Pretty well.
2845. We were informed by a previous witness that there were only four or five places between Bourke and Louth sufficiently high, and with a sufficiently sandy soil, to be fit for irrigation;—do you think that is the case? Well, there have never been floods in those particular places.
2846. Do you think there is a lot of other land similar to that which you are now irrigating which would also be suitable for irrigation? You may get little blocks, but the country is more lignum country, and that is very stiff.
2847. You do not think that the general run of the black clayey country is suitable for irrigation? No, I do not; I mean the heavy lignum country.

John Plunkett Fitzgerald, grazier, Fort Bourke, sworn, and examined :—

2848. *Chairman.*] How far is Fort Bourke from Bourke? Three miles across the punt, and 6 across the bridge.

2849. Have you a river frontage? Yes.

2850. To what extent? From 18 to 20 miles.

2851. What extent is your holding? 173,000 acres, I think.

2852. Have you gone in for agriculture at all? I have a small garden a little distance from the river.

2853. *Mr. Dick.*] Would you favour the Committee with your experience of irrigation in your garden? My garden is about a quarter of a mile from the river—not on the bank.

2854. Why did you select that portion;—is the immediate bank of the river not suitable? No; it is too low, and a Billabong divides it from the river.

2855. Do you find that the various plants do well with irrigation? Yes; provided we do not get floods.

2856. Does an ordinary flood go over the garden? I do not know about an ordinary flood, but the 1890 flood did us a lot of damage.

2857. Has the necessity for growing fodder crops been borne in upon you by losses during drought? It has.

2858. Can you give any reason why you have not gone in for irrigation for growing crops? The country which can be watered from the river is not suitable, and it would be too expensive to grow crops by pumping water. I am speaking in regard to crops for station use.

2859. It is your opinion that it would not pay to grow fodder crops by irrigation from the river, for station purposes? I am speaking only of my own place and not generally.

2860. Are there many properties on the river situated as yours is with regard to the problem of irrigation? I cannot say from personal knowledge.

2861. Would you say that your 20 miles of river frontage does not offer any opportunity for the growing of fodder crops by irrigation for station purposes? None whatever.

2862. Would that reply embrace the statement that it would not pay you to irrigate 100 acres or 200 acres for the purpose of preserving stud and other valuable stock during drought? I do not think the country is suitable for it.

2863. Then, if we have it in evidence, as we have, that every station-owner cultivating areas along this river could, if he so desired, make a success, from a financial point of view, of the growing of fodder crops to provide as a sort of insurance against losses during droughts, what do you say to that statement? I only speak in regard to my own place. I am not speaking for anybody else either above or below our place, but only for myself.

2864. Would you favour us with your opinion on this statement made by Mr. McKinney, an expert on irrigation:—

I will go so far as to say that it is disgraceful to the enterprise of the pastoralists that there is not more done in that way.

Would the irrigation of several thousand acres be an expensive undertaking? Yes. You asked me to state the area of irrigable land. I think every large station there should have 100 or 200 acres under cultivation.

? Speaking from a financial point of view, I do not think it would pay us. I think that black ground requires a lot more water than the red ground does; and it is far more expensive to irrigate with pump and engine. I may state that we are in the happy position of having two bores, and we irrigate from those and grow our crops there; but if I thought that I could grow a crop on the river (as it is so necessary after the late drought) I should tackle it there as well as on any other land,—for of course the bore supply of water is limited; but from a financial point of view I do not think it would pay us.

2865. Presuming that you did not have the bores, would your statement still hold good;—that it would not pay you to irrigate? Yes.

2866. In times of drought you think it would pay you better to buy fodder than to grow it yourself? Yes.

2867. This inquiry includes the problem of navigation as well as that of irrigation;—presuming the river were locked from Bourke to Menindie, would you send the whole of your wool down the river or by rail to Sydney? That would depend on the charges made by the teams.

2868. Would you state what has been the general practice? When the river has been up we have sent the wool by water in preference to sending it by team from our shed 13 miles to the railway-station at Bourke, but I should prefer to send it by team even if I had to pay a little more than by river.

2869. Have you ever sent your wool down the river to Wilcannia? I have, and am sorry to say that it has been delayed on the river two years, owing to the snags, and I would not run the risk again unless the river were cleared.

2870. If the river were locked all the way would you send your produce by the river? I am not prepared to say that I would, as I think there is too much risk.

2871. In what way? Well, the wool was delayed on the river two years owing to the snags, and even with a permanently-locked river I think there would be a certain amount of danger. But if other people got through all right we should perhaps be prepared to do the same. It would depend on whether the railway authorities were prepared to compete against the steamers, and lessen the railway freights considerably.

2872. If competition between the river steamers and the railway were to bring about, practically, an equalising of freights, would the advantage of the Sydney market be sufficient to determine you to send your wool to Sydney by rail? I cannot say that at present, for a great deal depends on the market as to whether we will send the wool to Sydney for sale there, or to Melbourne for sale there, or ship it to England for sale there.

2873. *Mr. Shepherd.*] You say you have a holding of about 173,000 acres? Yes.

2874. I suppose it is stocked entirely with sheep? Yes, and a small milking herd.

2875. What number of sheep have you on it? I cannot tell you; we are afraid to count them at present.

2876. Has there been a reduction during the last few years? Yes, a very large reduction.

2877. Will your holding carry one sheep to 3 acres in a good season? No; one to 8 acres is our assessment by the Government.

2878. In a very good season I suppose you have a large surplus of grass, herbage, and so on? Yes.

2879. Have you ever attempted to conserve those at all? Yes; it has been conserved in the shape of bush hay.

2880. In the shape of ensilage? No; not ensilage—just a stack of hay.

2881.

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- J. P. Fitzgerald.  
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2881. You have not tried ensilage? Not up here, but I have tried it in other parts.  
2882. Did you not like it? Yes; it turned out to be much better than we anticipated.  
2883. The general opinion is that ensilage is worth about twice as much as hay? Yes; my experience is that stock are very fond of it.  
2884. Is your holding paddocked? Yes; it is all paddocks.  
2885. You spell it occasionally, I suppose? As far as possible.  
2886. Have you found the grasses disappearing at all? Some of them.  
2887. Do you give your land a season of seeding in the "spell" time? Yes, as much as we possibly can, but in these parts it is very hard to be guided by anything done (say) in the Riverina districts. We have to be guided here entirely by local circumstances. In the Riverina the seasons are very certain, and people there can do a lot of spelling, but we cannot always do it. In seedy paddocks we are obliged to do it for the sake of the wool.  
2888. Of course you know the advantages of it? Yes.  
2889. So far as cultivation is concerned, you have irrigated only a small area of your own kitchen garden, I suppose? Yes; that is, from the river.  
2890. Have you tried fruits at all? We had a few fruit-trees, but the 1890 flood killed all our stone fruits.  
2891. What kind of fruits do you find answer the best? Oranges, figs, and mulberries grow best with us.  
2892. Have you not tried apricots? Not since the 1890 flood, which killed them.  
2893. Have you tried vines? Yes; we have vines.  
2894. They do well, I suppose? Yes; we have a few peach-trees which are doing well enough, and I believe would pay us well if we had a sufficient quantity of them. Lemons also do well.  
2895. Do you think it is at all likely that the locking of the river would lead to the cultivation of larger areas? Not so far as I am personally concerned.  
2896. I mean, generally? I am not prepared to give a direct answer to that question. I have not thought over the matter.  
2897. Do you think that the river would be largely used in the event of its being locked in such a way that it would be always navigable? I think so.  
2898. Do you think there would be sufficient trade to justify the expenditure of over £500,000? I am not prepared to state that. I was greatly surprised at the cost of the first lock. I would not like to see the country put to such great expense; but the matter does not affect me so much as people lower down the river, who are dependent on carriers when they cannot get a river.  
2899. Do you think the river would be used more than the railway if it were always navigable? Others, like myself, may think there is more danger in using the river. We have paid for our experience, and are very careful, and £100 would be comparatively nothing compared with the risk of the wool being delayed on the river.  
2900. I suppose that in time the river will be snagged the whole distance? Yes; but there must still be a certain amount of danger from trees on the banks falling into the river quite unexpectedly.  
2901. Has there been no attempt to remove the trees that are in dangerous proximity to the river? I cannot say, because I have not watched what has been done. I have been told that the snagging has been well done.  
2902. Judging from the formation of the country we saw yesterday, I should think there would be a difficulty in irrigating the land in the immediate vicinity of the river, because it seems to be very much broken? All I say is that our own property is not suitable for it; but other properties may be.

Malcolm Robertson, grazier, Jandra station, near Bourke, sworn, and examined:—

- M Robertson.  
23 Sept., 1899.
2903. *Chairman.*] How far is your station down the river? Eleven miles.  
2904. What is its frontage to the river? Sixteen miles.  
2905. What is the size of your holding? 125,000 acres.  
2906. *Mr. Shepherd.*] How long have you been resident at Jandra? Nineteen years next December.  
2907. I suppose that sheep are your principal stock? Yes.  
2908. How many sheep do you run? Usually between 30,000 and 40,000.  
2909. Has the number diminished of late years? Yes.  
2910. To what extent? I should say 50 per cent. I have not counted the sheep, but I should say that that is it.  
2911. You attribute that, I suppose, entirely to the four years' drought? Yes.  
2912. Do you find that any of the best kinds of grasses are diminishing? Yes.  
2913. Being lost altogether, in fact? Yes.  
2914. What kind do you find generally missing first? I have missed the good Mitchell-grass flats since the 1890 flood.  
2915. Any other grasses in particular? All the finer grasses are diminishing, including blue grass.  
2916. To what do you attribute the extermination of these grasses? I consider that the succession of droughts has been the cause of it.  
2917. Have the inferior grasses disappeared to the same extent as the more valuable ones? There is no grass of any sort just now.  
2918. Is your holding divided into paddocks? Yes; the whole of it.  
2919. Do you carry out a rotation of spelling and feeding? No; I simply do not overstock any paddock.  
2920. Do you not think that spelling the pasture occasionally, and allowing it to go through its seeding, would be an advantage? That is not my experience. The coarser grasses in this country are more rapid of growth than the good grasses, and I think that sheep naturally like a short pick instead of grasses growing long and coarse.  
2921. But do you not think that all grasses naturally disappear, unless they are allowed to seed and reproduce themselves? Yes.  
2922. So, in that case, it would be of advantage to give them a season of seeding occasionally? It would, certainly; but I claim that I have not overstocked my country.

2923. You may not overstock, and yet the sheep may not allow the grasses, particularly the favourite ones, to seed? There is not any grass left now, but I do not say it will not grow again.
2924. But even when you have a good supply of grasses, do you not find that the sheep go for one particular kind of grass more than another? Yes.
2925. They will not eat the inferior grasses when they can get the favourite ones? No.
2926. By that means the favourite grasses are exterminated first? Yes.
2927. In what seasons do you get the rains usually? Up to 1890 we usually got them in October; but since then there has been no settled period.
2928. Things have quite changed? Yes. Before that time we expected to get our rains in October from the north-east; but since then all our rains have come from another direction altogether.
2929. Do you remember ever having such a long period of drought before? No.
2930. Not during the whole of your residence here? No.
2931. And I suppose that last year was about the most severe of all? Yes.
2932. Have you paid any attention to the proposed locking of the Darling River? Yes.
2933. In the event of the river being locked, do you think that it would take all the wool? Yes; I think that insurance would go down and enable the river to compete against the railway, and the wool would go by the river.
2934. Of course, the river carriage would be much lower than the railway carriage could possibly be, and therefore you think the river would have the preference? Yes.
2935. Is the insurance very high? It has been as high as 33s. per cent.
2936. Would that in any way equalise the charges by rail? There was very little difference; but in sending by rail you would get your returns very much more quickly, and so we sent the wool by rail.
2937. Therefore, if the charges in any way assimilated, the railway would be used in preference? Yes.
2938. There is always a danger of accident on the river, I suppose? Yes.
2939. I see that even recently a steamer was sunk on a snag? Yes.
2940. But the snagging is being carried out, and I suppose that before very long the whole river will be snagged up to Bourke, and then the danger will decrease a great deal? Yes.
2941. And, probably, the insurance would be lessened in amount if the danger from snagging were taken away? Yes.
2942. Have you any idea of the tonnage that is taken by the river or by the railway? No.
2943. Do you think that the locking of the river would give any impetus to the cultivation of country? Yes, in isolated places.
2944. Have you attempted to cultivate your land at all? Yes.
2945. What area have you under cultivation? A very small area—a vegetable garden, under 2 acres.
2946. Have you not attempted to cultivate at all for wheat or hay? Yes.
2947. What extent have you under cultivation for that? I have none now, but I tried 5 acres frontage to the river.
2948. And you gave it up as a failure? Yes.
2949. Did you attempt irrigation at all? Not for the wheat.
2950. You irrigated the garden? I irrigated a small lucerne patch and the garden.
2951. What description of soil have you in the garden? Sandy loam.
2952. Is it a red sandy loam? No, dark grey.
2953. Have the results been satisfactory? They have; on the small area which is constantly fed by manure from the wool-shed; but it is absolutely necessary that it should be fed with manure.
2954. It is irrigated from the river, I suppose, by pumping? Yes.
2955. Have you any idea what quantity of water it takes to irrigate the 2 acres? No; I have never calculated it.
2956. *Chairman.*] You have possibly noticed the effect of the present weir on the river? Yes.
2957. What has it been above the weir, between the town and the weir;—has it backed up the water? Yes.
2958. Will you tell us what the effect of the construction of the weir has been below it, down towards your place? I have seen the water fall very rapidly within twenty-four hours, from 2 feet to 3 feet, and 4 feet.
2959. When was that—on more than one occasion? Yes, on more than one occasion. I cannot give you dates.
2960. How has that affected you? The effect has been that it has left the banks in a very muddy, boggy state, and the sheep going into the water, of course, got bogged.
2961. Did you lose any sheep by that means? No, we did not on that occasion. I was afraid we would, but there happened to be a small rainfall on the occasion I speak of, and, therefore, the sheep did not go to the river.
2962. That points to the fact that, in dealing with the river, any process of lowering the water rapidly would have a damaging effect on the grazier's stock by subjecting them to possible bogging and drowning? I should certainly think so.
2963. Have you any cultivation on your place? A very small area.
2964. What extent? Two acres in all.
2965. Just a house garden? A house garden and a small lucerne patch.
2966. What is the lucerne for? Feeding milking cows and a few horses about the house.
2967. How is it that you have not gone in for a greater extent of cultivation? The country is not good enough.
2968. Would you describe the character of the soil? The soil is sandy loam.
2269. Is your place above flood level? No; it is below flood level.
2970. Is it soil that is not easily worked, or is liable to crack? It is easily worked.
2971. Will you tell us its advantages or disadvantages? My idea is that, on the Coolabah ridges on the frontage, the whole of the surface soil has been carried away by the river, and nothing left but a mixture of clay and sand, which is too poor to grow crops.
2972. You have never tried it to see whether crops would grow or not? Yes, I have. In two successive seasons I had a crop of about 5 acres of wheat and oats, and on neither occasion was it worth cutting.
2973. Was that owing to drought or to bad soil? I am convinced it was owing to bad soil. It was not a particularly bad season.
- 2974.

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2974. Did it come above the surface? Yes, and then withered away.
2975. How high did it grow? The wheat averaged about 9 inches, and the oats 4 or 5 inches.
2976. And then it died off? Yes.
2977. Is that soil a fair sample of the river-bank soil for any distance from your place downwards? It is a very fair sample of the soil, excepting one or two spots, between Louth and Bourke.
2978. How do those spots differ from the others? The red soil goes right into the river.
2979. It is a better class of soil? Yes.
2980. Above flood level? Yes.
2981. Then you think that the effect of floods has been, instead of enriching the soil on the river banks, to wash away the good soil and leave the worst? Yes.
2982. How far does your knowledge of it extend from Bourke downwards? I know the river, more or less, to Wilcannia, but I know it well as far as Louth.
2983. How many miles? Sixty miles by road, and, I suppose, 120 miles by river.
2984. From your knowledge of that part of the river, both from observation and from what other people living on the river banks have told you, do you think it is unfit for cultivation? I do, excepting in small areas.
2985. In the course of this inquiry we have had the statement made that the squatters ought to cultivate considerable patches of land—say, to the extent of 100 acres—so as to make hay and so on, in order to keep their stock alive in bad seasons;—do you think that it is practicable to do that? I do not think it would pay.
2986. What is your alternative—to buy fodder, or let the sheep perish? Cut scrub, or buy fodder, or remove the sheep to other places, where there may be grass.
2987. Has that been done at all in this district? Yes.
2988. Where have they been sent to? To the mountains below Gundagai.
2989. By train? Yes.
2990. Did that pay? I cannot say.
2991. You did not do it? No.
2992. What do you generally carry on your run in a fair season? About 30,000 sheep.
2993. How many have you now, approximately? I should say we have lost 50 per cent.
2994. Then you have left in round numbers about 15,000 sheep? I should say so.
2995. Has that been a gradual loss from year to year? No, it has not been a gradual loss.
2996. The greatest loss has been within what period? Within thirteen months.
2997. Does it not seem strange that you should stand by and see your flocks decrease 50 per cent., and do nothing to save them? We have made all the provision we thought possible.
2998. In what way? In spending money on cutting scrub. We have spent large sums of money on scrub cutting.
2999. You have done all that, and yet the sheep have died? Yes.
3000. Supposing you had looked ahead, and had had a considerable quantity of stored hay or ensilage, is that a feasible project at all? I think it is.
3001. Supposing you were to get a good season from now, with a prospect of three or four bad years coming after two or three good years, would you profit by your past experience and try to save your sheep in the event of a bad season coming on again, or would you trust to chance and run the risk of your flocks dying? I should make every possible provision in conserving fodder for the stock.
3002. Well, seeing that you do not think that the land on your run is suitable for agriculture, aided by irrigation, what would you do? Go on the country that is suitable. I do not say that all my country is not suitable, but only the frontages—the flooded country.
3003. You might cultivate some of the back country? Yes; I think some of the red country is suitable.
3004. How far back from the river? Eight miles.
3005. You would have to deal with that, and trust to the rainfall? Yes.
3006. Do you think it is possible out in this dry country? Some say it is; they get a crop every three or four years.
3007. What is your average rainfall in ordinary seasons? I should think that 15 or 16 inches is the average.
3008. If that came at the right time for your wheat crop, that would be ample? Yes.
3009. We are told that the rain generally comes about October;—would that be the right time? No. I should think that sowing wheat in April, and trusting to rain in May, would be better.
3010. Do you get rain in May sometimes? Very seldom.
3011. Then, from present information, it would seem that this country is rather bad country to enable you to assist your flocks by growing crops for them? By irrigation depending on the river, it is.
3012. Have you bought any fodder for your stock during the last drought? Yes; large quantities.
3013. For the general flock, or for the better class of sheep? For the better class of sheep.
3014. I suppose that you are feeding them now? No; they are living now on the natural grasses.
3015. A slight fall of rain has given you a little herbage? Yes.
3016. Has this been the worst drought you have known since you have been in the district? Yes.
3017. Up to the present drought, have you got along fairly well? We had a bad time in 1884; but then the country was not watered to the extent it is now.
3018. Watered by tanks? Yes.
3019. Now that your flock is reduced to 15,000, will those keep on diminishing, or do you think you have a chance of saving them? I think we shall save those.
3020. As far as your knowledge of the country goes, do you look forward to it as a part of New South Wales in which, aided by irrigation, agricultural pursuits are likely to be extensively indulged in? No.
3021. Too dry country, too uncertain rainfall, and too far away, I suppose, from the market? Yes; and soil too poor.
3022. In the course of our inquiry it has been suggested that along the banks of the river Darling there may be patches which could be cultivated, the water being pumped up on a co-operative principle to irrigate a number of adjoining holdings;—do you think that is a feasible proposal? No.
3023. Do you know of any sites upon which you could put your finger which would be suitable for that kind of undertaking? No; I do not think it would pay.

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3024. The soil is not suitable? It is not suitable, except in one or two isolated places.
3025. And when they grew the stuff, what would they do with it? No market, I think.
3026. Does that extend pretty well from Bourke down to Louth? I think so.
3027. You said just now that if the river were locked, and weirs were erected, and there were a free river, that would be the means of the river being largely availed of for transit purposes? Yes.
3028. Supposing this proposal were carried out from Bourke to Menindie, do you think that that locking would be the means of bringing produce and wool up the river as a feeder to the Bourke railway? Yes; from all the country below Louth I think it would.
3029. With a good river always navigable, but not taken beyond Menindie, you think that nearly all the produce from there would come to the Bourke railway? Yes; below Louth it would come by boat.
3030. Of course, if the locking were continued beyond Menindie to Wentworth, the boats would still go on, and possibly down to South Australia? Yes.
3031. How do you send your wool? By rail to Sydney.
3032. Before the Bourke railway was built how did you send it? By steamer to Wentworth and Adelaide.
3033. Do you find it pays you better to send it by train direct? Yes.
3034. Certainty of transit has been the chief ingredient? Yes, and quick despatch.
3035. With a free river right down to South Australia, would you then send your wool to Sydney by train? No.
3036. If you could send it more cheaply by river, you would send it by river? Yes.
3037. So this position presents itself: that, with a free river from here right down past Wentworth, our constructing locks and weirs would divert trade from the railway at Bourke? Yes.
3038. Locks and weirs from here to Menindie would be the means of bringing trade to the Bourke railway and keeping it in the Colony? Yes.
3039. Do you know any squatters on the banks of the river who have engaged in large cultivation areas—say, 100 acres in extent? No.
3040. Have you ever talked over that matter with them—about growing fodder? Yes.
3041. What have their opinions been? Their opinions are the same as my own—those that have country not suitable. Some who have fair country on the river have a good few acres irrigated.
3042. *Mr. Watson.*] Do you think it would be practicable for a number of pastoralists to combine in the laying down of a large pumping plant, with the view of sharing the water later on and irrigating a small plot belonging to each; in that case, you would require the holdings to adjoin? They would be a considerable distance apart.
3043. Does this sandy clay invariably extend 8 miles back from the river through your country? No.
3044. Are there tongues of good red soil coming down through it occasionally? So far as my frontage is concerned, there are no tongues of red land coming down through it.
3045. It is practically uniform in character? Yes. It does not always extend 8 miles back, but here and there there are red salt-bush plains.
3046. How close would they come to the river, in some instances, on your own land? About  $4\frac{1}{2}$  miles.
3047. That would be too far for taking water for irrigation? When I said 8 miles I meant the country suitable for irrigation—nice friable soil.
3048. That would be 8 miles back? Yes.
3049. Too far to carry the water? Yes.
3050. You are not very hopeful of the prospects of irrigation? No.
3051. *Mr. Dick.*] Mr. Harper gave the following evidence in reference to this proposal. He was asked: If the river is rendered permanently navigable, have you no hope of successfully competing with it? No. What-ever insurance is paid would then necessarily become lower. Would it be possible for the railway to compete with the river traffic? Yes. Do you think you would lose the Bourke traffic if the river were made permanently navigable? We should either have to lose it, or so reduce our rates that they would be absolutely ruinous.
- Do you agree with Mr. Harper, that if the river were made permanently navigable by a series of locks, it would be impossible for the Bourke railway to compete against it; in other words, do you think you would send your wool by the river rather than by the railway? It is all a question of rates.
3052. I think you gave it as your opinion that the soil immediately adjoining the river, on either bank, is practically a sub-soil, the original red soil having been eroded by the river? Yes.
3053. And hence you think there is not much prospect of successful irrigation on such soil? I do not think there is.
3054. Have you ever made a contrast between the cost of scrub-cutting, purchasing fodder, and other means that you adopt at present for saving your stock during drought, and, on the other hand, the probable cost of growing crops by irrigation on your holding? No; but I shall be able to do so now we have got through this scrub-cutting experience.
3055. Would you hazard an opinion now as to which you think would be the cheaper—growing crops by irrigation, or using those other means? My evidence is that you could not irrigate on this river, and make it pay.
3056. Do you know whether there are any patches on your holding having a slope away from the river, suitable for irrigation—red soil, for instance? No; there are none.
3057. *Chairman.*] What scrub have you been cutting for fodder during this weather? Mulga, chiefly.
3058. When that is cut down it does not grow up again? We have been following out the principle of leaving one small branch below the cut, and in those cases the tree will grow again.
3059. In cutting your mulga you have taken the precaution to leave enough vitality in the tree for it to grow again? Yes.

Walter Bankes, caretaker, Bourke Weir, sworn, and examined:—

3060. *Chairman.*] You are the Government caretaker at the weir 4 miles below Bourke? Yes.
3061. How long have you been there? Ever since its completion.
3062. And also during the latter part of its construction? Yes.
3063. When the weir was completed and first brought into operation, what was the height of the river? The river was very low.

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- W. Bankes. 3064. At the public opening, which took place in July, 1896, the river was very low and the movable shutters were left up? Yes, they were up at that time.
- 23 Sept., 1899. 3065. They remained up until when? The shutters were lowered for the first time on 3rd August, 1896, when the river level was 12 ft. 2 in. above, and 5 ft. 3 in. below the weir.
3066. What was the height of the river at the opening of the weir? The height of the river at the official opening of the weir was 10 ft. 7 in. above, and 1 ft. 10 in. below.
3067. At the opening of the weir the shutters were standing—what effect had those shutters on the height of the river above the weir? They were backing up the water.
3068. To what extent? It rose very gradually until August, and then a fresh came into the river and the rise was more rapid, and it very soon went over the crest of the weir. In about four days it topped the weir.
3069. It continued to run over the top until when? We lowered the shutters then immediately. The river became navigable and they had to be let down.
3070. You let them right down? Yes.
3071. There was then a sufficient depth of water for navigation? Yes.
3072. That state of things went on for how long? The river was navigable for about two months.
3073. And then the river began to fall? Yes, and the shutters were raised again.
3074. With the result that the water was backed up again to the top of the shutters? Yes.
3075. And that went on for a considerable time? Yes, until the next rise came.
3076. And then did you lower the shutters again? Yes. As soon as the river becomes navigable they are lowered.
3077. Tell us the next time that the shutters were lowered? They have been raised and lowered frequently until just recently. We let them down just before the last rise.
3078. On what occasion was that—to let a steamer down? No; the present rise that is here now.
3079. *Mr. Watson.*] Is it not a fact that the shutters were lowered at the request of the people of Wilcannia, with a view of letting a steamer down with a lot of produce? I cannot say at whose request it was done, but I got instructions to do it if possible.
3080. And it was done? Yes.
3081. What was the height of the river above and below the weir? On 6th October, 1898, when the steamer "Pilot" and her barge were flushed down, the river level above the weir was 13 feet 2 inches, and below it 6 feet 7 inches, previous to the lowering of the shutters, and after the lowering of them the river was 9 feet 9 inches above the weir and 9 feet 3 inches below it.
3082. *Chairman.*] From October, 1898, until now, have you had the shutters up and down? Yes.
3083. And each time they have been raised has the effect been to block back the water? Yes, excepting once.
3084. When was that? During last year, just before Christmas. It raised it then to a certain level.
3085. Was that the time when Mr. Darley was up here? Yes.
3086. Is there much water escaping through those shutters? Yes, a considerable volume.
3087. How does it get away—through the interstices? Yes, and at the junction of the shutter with the sill, which is not a close joint.
3088. Have any steps been taken to try to prevent such a lot of water from getting away? Yes. Just before Mr. Darley came up we put in some rope stoppers, in order to see the effect. They were not put right across, but only about half way.
3089. What effect did they have? They blocked a considerable amount of the flow in the spaces between the shutters.
3090. But at the bottom the escape was just the same? Yes.
3091. Was the proportion of water that escaped much larger than that which was kept back? Certainly it was, because the latter ran down to zero.
3092. Then, as a means of backing up the water when the river was low, the shutters were not effective? No, they were not.
3093. They are down now are they not? Yes.
3094. Then the only water that is kept back now is up to the height of the sill—where the foot of the shutter touches the sill? That is all.
3095. As a means of damming back the waters of the river Darling, I suppose these shutters cannot be compared with a fixed weir, because in the case of the latter the water must have been left there, unless you had opened the gates and let a lot of it through? Yes.
3096. Do you find much difficulty in manipulating these shutters? No; there is no difficulty.
3097. How is it done? By means of a punt and a winch.
3098. How many men? Three when the river is low, and two when the river is as it is now.
3099. And one shutter at a time? Yes.
3100. And how many shutters? Thirty.
3101. And how long would it take for three men to close the shutters? With men who understood the work, six hours.
3102. Do they come up easily with a good rush of water against them? Yes.
3103. They are not brought up as a solid body? No, they come up feathered.
3104. Is it easy to adjust the receding rod? That is where the main difficulty is; they are apt to tilt forward.
3105. Did they ever get out of place when once they were up? Yes, they have. When the river gets very low the wind blows them forward, and then they have to be lowered and pulled up again.
3106. *Mr. Watson.*] Then they are not keeping any water back? No.
3107. *Chairman.*] Mr. McKinney said that there were means of preventing so great an escape of water by putting slides of wood over the openings between the shutters? That has not been tried. We have tried only the rope.
3108. That would be rather a primitive and difficult thing to do? There would be some difficulty in getting them into place owing to the suction. The rope is easily got there, because the suction draws it into position.
3109. Can you tell us how far back the water was dammed when the river was at its strongest current, and when the shutters were up? I believe 50 miles. So the captains of some of the river boats told me.



3110. The effect was visible, of course, at Bourke? Yes, and above the weir for 50 miles.
3111. It is admitted that unless you can guarantee a plentiful flow of water, the shutter is not a suitable kind of weir for sending the water back; but it has also been suggested that it would not involve very much labour to make these shutters water-tight, and that the man in charge could easily do all that was wanted to make the shutters water-tight;—would it be an easy job? I do not think it would be possible to make these shutters absolutely water-tight; but a great deal of the flow could be stopped.
3112. The covering up of those interstices would not be an easy matter? Not to do it effectively.
3113. It would be a work of time, and require a very careful fitting of the slides? Yes.
3114. What width are the openings? An inch at the lower half of the shutter and 2 inches above.
3115. I hand you a photo of the weir taken on the day of the opening, and included in the report of the Minister for Works, showing the escape of water through these shutters;—does that give a truthful representation of what went on at that time, and what goes on generally, when the shutters are up? Yes. The water is always flowing through like that.
3116. That looks as if it were anything but an effective weir to keep back the water? Yes. A very large quantity passes through.
3117. What has been the result of your observation in regard to silt at the weir? The weir is perfectly clear of silt, both above and below.
3118. Does that indicate that the stuff is of such a fine character that it goes away with the water? I suppose it does.
3119. On the lock side of the river there is some silting up? Yes.
3120. How do you account for that? There is an eddy there. The lock is situated immediately behind a bend, and behind all the bends in this river there is a sandspit.
3121. There is an eddy on that side of the river which causes the sediment to stop there? Yes; but that deposit is formed only when the lock is entirely submerged in a very high river.
3122. Does it wash away as the river goes down? No, it does not.
3123. It will have to be dredged away? It wants some appliance. We have to put in a spur to force the current over to that side in order to scour it away.
3124. This lock and weir are erected not very far from a bend in the river? Immediately behind a bend in the river.
3125. In the proposal before us, Mr. Darley's idea is to have the locks and weirs always, when practicable, in a long straight reach? Yes.
3126. There ought to be no silting up then? No, there ought not to be. Most of the silt has accumulated with a 28 feet level.
3127. Is this silt so bad now that the lock gates cannot be worked? In the chamber of the gates themselves, it is.
3128. Have you drawn the attention of the Department to that? Yes.
3129. And they are going to have it remedied, I suppose? I think so. The silt is liable at any time to get into the gate chambers and prevent them from closing.
3130. Is it very difficult to remove? It depends on circumstances. Sometimes we can clear the four gates and shut them in a day; but sometimes it will take three or four days.
3131. But supposing these locks were regularly working? If they were regularly working no silt could get there, because there would be no current passing through. It is only when the whole thing is opened that the silt gets there.
3132. So, if the locks and weirs were in full work the trouble from silt would disappear? Yes.
3133. From your evidence there seem to be several little details, as well as these fixed shutters, that want looking to before this lock and weir would be in thorough working order;—is that so? Yes; in a river like this the freshes come down so strangely. It is not like rivers in other countries.
3134. The silt is of a character that does not readily accumulate? No; it is very fine, and it passes away. Once it is stirred up it is easily removed. Where it now collects, caused by an eddy in the river, I think the accumulation of silt could be prevented by the erection of a spur or wall that would cause the water to run straight through, instead of putting it into the present pocket or corner when it accumulates.
3135. We have had before us as witnesses here one or two gentlemen who have holdings below the weir, and they say that the movements of the weir have affected the river very rapidly on their runs, and have caused a sinkage of the water, and their sheep to get bogged on the river banks;—have you heard any complaints of that kind? Yes, I did hear them; but they never say anything when the river rises and falls, in the natural course, that way.
3136. But they say that is very gradual? It rises and falls very rapidly sometimes.
3137. They say that in a gradual fall of the river the river mud hardens, and the sheep are able to walk on it? Yes, in a very gradual fall it does; but sometimes it will fall a foot a day, and the mud cannot have time to harden then.
3138. Then you think their case is a little overstated when they make a complaint against the weir? Yes, I do.
3139. Has the character of the water above the weir suffered at all by the damming-up, as regards its purity or otherwise? I think that improved it during last summer, owing to the greater depth of water; and it was certainly cooler.
3140. Has the erection of this weir been, as it was intended to be, a kind of object-lesson for us at the present moment in this investigation? Yes.
3141. In what way? To keep them clear of these bends in future, so that they will not silt up.
3142. That is, in constructing weirs in future? Yes.
3143. This is what a former Committee said:—
- Before any general scheme for locking the Darling is adopted, ample time should be afforded to test the effect of the construction of the Bourke weir upon the river channel, both above and below, and to ascertain if movable shutters become unworkable after long submersion.
- The effect of this weir, you say, has been to purify and cool the water? Yes.
3144. And it has backed the water for 50 miles? I believe so.
3145. Below the weir there has been no accumulation of silt? No.
3146. And the water itself has not been affected? No.
3147. Because, when the weir was up, and there was an overflow, people below it got the whole flow of the river just as they would if the shutters were down altogether? Yes.

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- W. Bankes. 3148. When these shutters are down, and on the bed of the river, do you notice much or any accumulation of silt upon them? There is none whatever.
- 23 Sept., 1899. 3149. The water shoots well over, and the silt does not accumulate? Yes.
3150. When the shutters have been lowered and raised again at various times, has that been done on your own motion, or who directs that the shutters shall be raised and lowered? Generally it is left to me.
3151. And what guides you in dealing with the matter? When the river falls to navigation level—that is, 6 feet 6 inches—the shutters are raised.
3152. And when the river begins to rise again, you lower the shutters? Yes. We get reports from a number of places, and know when a rise is coming, and when it reaches Bourke we lower the shutters again; but we did once let them down specially to let the steamer “Pilot” go through to Wilcannia. I have not heard of any complaints since the weir was officially opened. We close only half of the weir at a time, and let the water rise gradually, and therefore the people below the weir get a flow all the time. As the river rises, so we keep on closing the shutters one at a time. My instructions have been to cause as little inconvenience as possible to the people, both above and below the weir, when I am manipulating it.
3153. Has the lock ever been used? Yes.
3154. Once or more? I suppose a dozen times.
3155. With what result as regards ease of working and time for a vessel to negotiate the lock? It takes about twenty minutes to put one through.
3156. Is the lock easily worked? Yes.
3157. How many men? I can do it by myself; the gates are opened by a lever.
3158. And they work well? Yes, very well. Of course, they are heavy.
3159. With a fixed weir, do you think that one man at each weir would be sufficient to manipulate affairs, assisted by the steamer men? Yes, certainly.
3160. And keep things in order? Yes.
3161. As regards the expense of working a fixed weir and the expense of working movable shutters, there is no doubt that it is largely in favour of the fixed weir? Certainly.
3162. If one of the shutters were to get injured by something knocking against it, or by the struts getting out of order, or by the hinges getting broken, I suppose that that would incapacitate that part of the weir altogether? None of it would be any good until that was repaired.
3163. And would it not be a considerable trouble to get a thing like that repaired? Not when the river runs low; then it can be easily done.
3164. But supposing the accident occurred a long way down the river, at a place far removed from a township, and with no blacksmith’s or engineering shop near at hand, would that not be rather a serious thing to contemplate? Certainly it would.
3165. And it might happen at the critical time when the saving of water was very desirable? You would either have to put in a coffer dam or let the river run dead low.
3166. When you put the shutters up with a falling river, from then until you let them down again with a rising river, the weir is in the nature of a fixed weir for the time, although not quite watertight? Yes.
3167. Do you see any evidence of silt above the weir when next you let the shutters down, or during the interval? No; when the weir is up the silt does not accumulate. It is only in a high river, when everything has been opened, that the silt has accumulated here.
3168. Fears have been expressed by some people that, with fixed weirs, a certain amount of silt would accumulate above them;—do you think that is likely, judging from what you have seen of this weir? I do not think so. I think it would go over, because it is very fine stuff, and is carried with the current. It is only where there is an eddy that it deposits.
3169. *Mr. Shepherd.*] Have you noticed whether, when all the shutters are up, there is very much difference in the level of the water above and the level of the water below the weir? Certainly there is.
3170. So that the whole of the water does not escape through these openings? Not when there is a good flow.
3171. You say it requires three men to attend to each lock properly? To this particular lock.
3172. Have you had any experience of fixed weirs? Yes.
3173. Where? In England.
3174. Did you find them answer well? They answer well there.
3175. There would be less labour, I should imagine, in working a fixed weir? Yes, certainly.
3176. And you say it is harder to adjust these shutters when the river is low than it is when the river is high? Yes; it takes three men when the river is very low, but two can do it when the river is high. There is then more pressure against them.
3177. You say the weir affects the river for 50 miles up? I am told so.
3178. Is that when the river is down to the level of the weir? It is when it is running over the crest of the weir. There may be 4 feet below, and there may be 13 ft. 6 in. above.
3179. That is when the whole thing is blocked? Yes.
3180. What was the height of the river when the photograph which you were shown was taken? I cannot say exactly, but I should think about 9 feet.
3181. That would be something about the same as it is now? Yes.
3182. And at that time the shutting of the shutters made a considerable difference in the level of the river? Yes; you can see that from the photo.

George Pickhills, sworn, and examined:—

- G. Pickhills. 3183. *Chairman.*] You have been master and owner of steamers plying on the river Darling, during the past thirty-five years? I have.
- 23 Sept., 1889. 3184. *Mr. Watson.*] You have heard of the proposal to lock the river between Bourke and Menindie? I have been one of the foremost believers in locking from the inception of locking, and have agitated for the Bourke weir.
3185. What do you think has been the effect of putting the Bourke weir in? I think the weir is not high enough, and that the lock is on the wrong side of the river.
3186. Why do you think the lock is on the wrong side of the river? Because the lock is out of the current, and in an eddy, and is, therefore, more likely to have silt deposited upon it. 3187.

3187. You think, then, that the fact of placing it on the inside of the bend where it now is makes it more likely to be silted up? It is a mistake. G. Pickhills.
3188. Why do you think the weir should be higher? Simply for this reason: If the weir were, say, 3 feet higher, it would not have cost a great deal more money, and would have thrown the water very much further back. 23 Sept., 1899.
3189. But, of course, if you had weirs sufficiently near each other to provide navigable water all the way, that objection would not be of any particular value? No.
3190. Speaking generally, do you think that a number of weirs, each with a 7-foot lift, will be sufficient for navigation? The locks would need to be very much closer.
3191. What do you think is a sufficient allowance in the way of depth of water for navigation—what do you want to be guaranteed? Five feet.
3192. With a guarantee of 5 feet of water, navigation could be safely continued? Yes.
3193. You have advocated the locking of the river from Bourke to Menindie, and no further? Yes.
3194. What do you think would be the effect of that? That you would get the whole of the river trade for the Bourke railway, instead of allowing it to go through to South Australia. You would also get the trade of White Cliffs.
3195. Is it not quite possible that within a short time even the Federal Government would cause the river below Menindie to be locked, even if it were locked from Menindie to Bourke in the first instance? I should say that locking the river from Bourke to Menindie is actually necessary.
3196. But I suppose you are aware that the Federal Government, which is shortly to be initiated, will have control of navigation and all things that pertain to it, and consequently would have power to put weirs in the river from Menindie downwards? Yes.
3197. It may, therefore, be necessary to look at this project as though it were intended to take it right from Bourke to Wentworth;—what do you think would be the effect of that on the opening of country in the surrounding districts, and on traffic generally? My opinion, then, would be that, with the Federal Government and an equal tariff, possibly a great proportion of the trade would go to South Australia. I think that a great deal of the wool would go to South Australia instead of over the railway, because the Murray is very seldom low. It is not like the Darling—erratic in its movements.
3198. The Murray is nearly always navigable when it is necessary to carry heavy goods over it? Yes.
3199. During the period when you are putting out wool? Yes. It invariably rises, you may say, from April or May, and right up to Christmas—nine months in the year.
3200. It continues navigable until when? Until Christmas, and sometimes until January.
3201. And before January, I presume, the wool would be down? Oh, yes.
3202. So that, for the purposes of an outlet for wool and similar products, the Murray would be navigable? It would.
3203. Supposing the trade in that case did go to South Australia, do you think there would be any compensations accruing to New South Wales by reason of the opening up to any great extent of her Crown lands? I do not think so. And you would not benefit South Australia very much either. The wool would be shipped to Port Victor and go to Melbourne, and be diverted from Sydney. Possibly in some cases it might be transhipped into other vessels at Port Victor, but in most cases it would go to Melbourne. You can deliver wool from Bourke to Port Victor for something like £5 a ton, f.o.b. at Port Victor, for transit to London.
3204. They can get it taken from here to Sydney more cheaply than that? Yes; but stations 100 miles below would prefer to send their wool by river, if a river could be guaranteed.
3205. It would appear from what you say that New South Wales has not a great deal to expect from the expenditure of money in locking the river, unless it is confined to as far as Menindie? That is my opinion.
3206. We seem to be not in a position to guarantee a cessation of the work after we get just past Menindie? My opinion is that the trade below Menindie is not worth having, because there you are so close to South Australia that South Australia has been supplying the people there for years past; but, by opening the river to Wilcannia, you would supply Broken Hill and the adjoining country out to White Cliffs, and also an immense area of country on both sides of the river.
3207. What has been your experience as to the navigability of the river;—during what portion of the year was it possible for you to continue running, on the average? On the average, about seven months in the year, but I have lain here seventeen months without moving a paddle-wheel. However, that was during an exceptional season. On the average, navigation is assured for about seven months in the year now.
3208. How long is it since you ceased active work? Only lately.
3209. Does there seem to have been any difference in later years;—any increase in the depth of water, on the average, or any decrease? No alteration, except in certain places where a slight island in the river may have been removed by an extreme flood, or a deposit may have taken place, which was afterwards washed away.
3210. Merely local alterations? Yes, and not permanent. In some cases break-throughs have formed, cutting off a bend. That is natural, but only where the river is so narrow that there must be erosion gradually straightening the river out.
3211. Do you know any of the work done lately in regard to snagging? I was up the river with Mr. Trickett, the Government superintendent of snagging, in the steamer "Lady of the Lake."
3212. Do you think that that work has been effectively done? My experience is that it has been well done between here and Brewarrina. I cannot speak of other places.
3213. I did not mean as to the manner in which the engineers have done their work, but as to whether other snags would not take the place of those removed? It will be a great many years first.
3214. Is it possible if logs are going down in a flood to notice them particularly? Always with a heavy flood, of course, floating timber which has been lying on flats—perhaps cut in dry seasons—and the tops of trees, will come down the river, but I do not think that they become permanent snags in the river. They form floating masses of timber, which catch against other timber in the river, but they do not cause any permanent obstruction.
3215. Do you think it is probable that after the river were once effectively snagged a small patrol party could keep it free from every obstruction of a dangerous character? Most undoubtedly. I believe that two parties could keep the river clear between here and Wentworth if it were once effectively cleared.

- G. Pickhills. 3216. Do you know the average rates of freight between here and Wilcannia? Everything depends on the nature and stability of the river. Sometimes it is a permanent river during the wool season, and things are taken down at a rate as low as 30s. a ton. Latterly they have been taken from here to Wilcannia at £3.
- 23 Sept., 1899. 3217. The 30s. rate is when you have had loading each way? Yes; and a permanent river. At present the rate is £3, and it has been for months past because the river has been so fluctuating, and boats have been liable to be stuck up.
3218. Did you ever trade right through from here to Morgan and down the Murray? For some years I did.
3219. When you had a good river, what did you get for freight from here right down to Morgan? I never had less than £5 a ton, but that is many years ago. The freights have gone down considerably since then. I have latterly been trading up the river, and from here to Wilcannia. South Australian boats come up here during the wool season, and leave their barges at stations for months. They wait for a good river without engaging a crew, and in the meantime the wool is loaded and it is taken sometimes at as low as £2 a ton from Wilcannia to Morgan. Some of the barges carry from 1,700 to 2,000 bales of wool each.
3220. It is proposed to place these weirs at seventeen places on the river between here and Menindie; the weirs vary in height from 7 feet to 10 feet;—what do you think would be the maximum height at which you could place a weir without injuriously affecting the country away from the banks if a flood were on? Ten feet, safely. It would be an advantage with 10 feet.
3221. In what way? Because a number of creeks would not be filled if you had only 6 feet or 7 feet, but 10 feet would fill them.
3222. Do you think 10 feet would have an appreciable effect in flooding the country around? No; it would take 14 feet or 15 feet to do that. Twelve feet would not go over the flats; 12 feet would be quite safe.
3223. With a weir 12 feet high, would some of the small creeks have water backed into them? Many of them, and it would go for miles inland.
3224. In many places the banks are so high that that would not occur? In many places.
3225. But, occasionally, there would be a backing up of water into these blind creeks if you had weirs 12 feet high? Undoubtedly; and I think it would do a vast amount of good.
3226. But the raising of the water, say, 1 foot or 2 feet inside the banks would not make a great deal of difference when spread over a mile or so of country outside the banks? It would be hardly perceptible.

MONDAY, 25 SEPTEMBER, 1899.

[The Committee met at the Court-house, Bourke, at 10 a.m.]

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Clarence Hardie Gorman, Manager, Pera Bore Farm, sworn, and examined:—

- C.H. Gorman. 3227. *Chairman.*] How long have you been at Pera Bore? Three years.
- 25 Sept., 1899. 3228. Will you kindly explain what your duties are? The general management of the farm and orchard, and the care of the settlement. I am in charge of the distribution of water to the settlers, and the general management of the settlement, under the new arrangement which the Department has now made.
3229. What is that new arrangement? Under the terms of my appointment, the farm and the settlement were under the Public Watering Places Branch, in which there was a sort of dual control; but the Minister has approved of the whole place being transferred to the Agricultural Department, and worked under that branch, having only one officer in charge at Pera.
3230. So you have the stock-drinking troughs? That comes under me. There is a caretaker specially for the work of attending to the watering of travelling stock, the distribution of water to the settlers, and the keeping of the flumes in repair, under my direction.
3231. The staff consists of yourself, the caretaker, and two farm hands? Yes; one is foreman. Up to a month ago I had three hands, but one has left, and I have not yet engaged another man in his place. The staff is really two hands and a foreman.
3232. What are you growing there? We are principally experimenting with fruit. That is really the object of the farm.
3233. How many fruit-trees have you in, and what kinds? I cannot say the exact number now, but we have about 33 acres planted with fruit-trees—citrus and deciduous trees. I include a small vineyard in the 33 acres.
3234. Have you been there long enough to be able to say which kinds of fruits are the most suitable? So far as the growth is concerned, I can certainly say that the citrus trees will be the most remunerative, though I have not been there long enough to arrive at what will be a fair crop, because the trees have not come into full bearing yet; but judging from the growth and the habit of the trees, and the lack of disease, I think that the citrus trees will eventually be most successful, and there is no doubt that raisin-growing and the cultivation of sultanas and currants will be another great industry there.
3235. The soil there is red soil, is it not? Yes.
3236. You have been for several years the holder of a block of land at Mildura, which I believe is what they call the mallee and pine country;—you can, perhaps, tell us how the soil there differs from the Pera soil? Yes. I think that the soil at Pera is not so free. At Mildura the soil seems to be of a much freer nature.
- 3237.

3237. That being so, are you able to make a comparison as to which is the better class of soil for fruit-growing purposes? I would hardly make a comparison, for this reason: I have not been long enough at Pera to see any return from the trees. The growth has been very satisfactory, but the cost of working is a little more expensive than at Mildura.

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3238. The effect of the watering at Pera is to make the soil get very close, is it not? Not necessarily the watering.

3239. The water has that effect? Yes.

3240. And you say that the remedy for that is a thorough system of green manuring? Yes.

3241. Would that make the farming very much more expensive? Not at all. There would be a certainty of increased returns so far as the farming is concerned; but the trees would not feel it for some time. So far as small crops are concerned, the return would be shown in the crop.

3242. I understand that there are twenty blocks of about 20 acres each available for farming at Pera, and they are all let at present? There are eighteen blocks of 20 acres each and two of 24 acres each, and they are all let.

3243. Are they all being worked by the holders? I cannot say that at the present time. Five of the settlers are away, and I cannot say whether they intend working their blocks again or not.

3244. How many permanent farmers are there who are not occupied otherwise than in farming? About fifteen.

3245. Do not some of them do other work when they get a chance? Yes, such as contract work.

3246. Shearing? No; there are no shearers there now.

3247. Any teamsters? One teamster; and others, I think, take small contract work.

3248. Is there one, or more than one, instance of a man getting a living on the holding without doing anything else? Yes.

3249. How many are there getting a living on the holdings without doing anything else? There are two I know of getting a living from a block, and I think a third.

3250. Have they any fruit-trees in? Yes.

3251. Do you know how many? About 7 acres of fruit-trees.

3252. And the rest is cultivated in what way? They make their living from market gardening—supplying vegetables and green fodder to Bourke.

3253. The fruit-trees are not in a stage yet to give a return? No; they have not come to maturity yet.

3254. Is the growth of the fruit-trees satisfactory? Quite.

3255. We understand that latterly the supply of water to the settlers has been curtailed about one-half;—how has the shortness of water affected their crops and their fruit-trees? We had to put all our energies on to the fruit-trees in order to keep them going, and had to allow the small crops to go. That is the only thing we could do.

3256. But under their contract the settlers were to get a certain quantity of water with which the Government has not supplied them? Yes.

3257. Are they suffering, as regards their crops, by reason of the shortness of water? Some of them have. Had there been more water available they would have had more ground under cultivation.

3258. They are now limiting the extent of their cultivation and are using all the water they can get for what they have, in order to keep that going? Yes; we have always endeavoured to give them a fair proportion of the water—in fact, the Government farm has suffered in that respect.

3259. How often do you think the trees should be drenched? It all depends on the season, and also on the age of the trees.

3260. The seasons here are always pretty dry? Yes; but we may get rain at a certain time which may, perhaps, save two irrigations.

3261. You have had nothing of that kind lately? No; we have had one fall of  $3\frac{3}{4}$  inches.

3262. In continuous dry weather, when you look to irrigation as the means of keeping the crops and the trees in working order, how often do you think they ought to be drenched? Three-year-old trees require a good irrigation at least once a month.

3263. And other crops, such as vegetables? I cannot lay down any rule as to what quantity they would require, but the water should be available at least once a week for vegetable culture—in fact, in very hot weather, twice a week.

3264. As far as your experience has gone, is the bore water in any way injurious to the soil or the crops? Not at all; in fact the soil has been analysed and no bad effect has been discovered.

3265. There is no salty crust on the soil after using the water, is there? Not with a proper system of cultivation. If you allow the water to run, you get a white, sodary matter on the ground afterwards, and there is a sort of black substance that seems to run close to the white; but that will not be noticed if the ground is perfectly cultivated and kept well open and absorbent.

3266. Is that crust injurious to the crops? No, I have not found it to be so. I have allowed the furrows in some cases to remain open a considerable time, and I have never seen any ill effect.

3267. Would you mind telling us what was your experience of irrigation at Mildura? Practically, similar to the work I am doing at Pera; but it was only on small holdings.

3268. But as regards expense; in the first place the holders of land at Mildura were under a very much heavier rental and charge for water than the people at the Pera bore are? Yes. When I first went to Mildura we paid 6s. per acre per annum for water there.

3269. Were you a freeholder of the land? Yes. The land itself cost £20 an acre; at least, that was the upset price. I know that as much as £40 an acre has been paid for land there, without it being cleared.

3270. What would it cost to clear the mallee off? From 10s. to 18s. an acre—that is, the light mallee. Some of the very heavy mallee would cost almost as much as £3. I am speaking generally of the land around Mildura. Then, after two and a half years of work there, the water-rate was raised to £1 an acre. There is one grower in Mildura with whom I had been in communication for some time, and who has said that he would be prepared to pay £2 per acre per annum for the water if he could get it when he wanted it, he is so satisfied that the returns could be increased, proportionately to the charge for water.

3271. Has Mildura been a failure as a settlement? I hardly think so. Certainly the company went to very extreme methods in developing and laying out work that was really too far ahead of the demand, and instead of keeping the settlement compact, they went out to such a distance that they had to make tremendous channelling in order to water the isolated blocks. I do not think they would have had any trouble

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- trouble there had the company kept the settlement compact; but there was a desire to sell land at any price, and they allowed people to select anyhow.
3272. At the present time is the supply of water at Mildura stopped? No; there appears now to be a much better feeling, and the people there appear to be more successful.
3273. The water there is all pumped from the river? Yes.
3274. What height of lift? In some cases up to 50 feet.
3275. Are there various pumping stations? There are four pumping stations.
3276. And have they large reservoirs for holding the water? No; they pump direct into the channels. These are all earth channels. There is no fluming there, except at some places where they have a few chains of fluming. The channels are all made out of the natural earth, in some cases concreted and cemented.
3277. Would there not be a lot of waste, consequent on the earth channels being used? That was our trouble there at first. The crayfish used to bore through the earth channels, and let the water get away. That is the reason why we had to use concrete in some places, for it was only in bad places that the company concreted; but I think that, with the improvements which the Government have made at Mildura, the majority of the big supply channels will be concreted.
3278. With regard to Mildura, I suppose that the surface to be planted and irrigated was laid out on such a system, to begin with, as to get a gradual fall for the water? Yes. The company delivered the water to the highest corner—not point—of every block, and each landholder had to prepare his land for irrigation. On my own block I paid £2 an acre for grading alone, in order to make the furrows.
3279. What was the size of your holding? Only 20 acres.
3280. Can you tell us what area one of those pumping appliances would serve at Mildura? I have been informed that a 10-horse-power engine, with a lift of about 18 feet, would irrigate a block of land about 200 acres in extent.
3281. You have been one of the early settlers at Mildura, and having taken up one of the 20-acre blocks there, would you mind stating to the Committee how it is you severed your connection with that place? I have not severed my connection with it. At the time I left, having been there six years, and my fruit-trees just coming into bearing, there was an agitation among the settlers as to the supply of water—as to whether the irrigation company representing the settlers should have charge of the water, or whether Chaffey Brothers should have charge of it. The agitation was really so upsetting that many of us decided to lease our blocks—not actually giving them up—if we could get suitable lessees, and try to start somewhere else in the meantime. That was the only reason why I left.
3282. Why, if they gave you water, as required, at a fair charge? The trouble was that they were not giving us the water. We could not get the water when we wanted it, even though we were prepared to pay a fair price for it.
3283. The water-supply not being satisfactory, then, caused you to leave? Yes.
3284. And you have let your holding to a farmer? To a neighbour.
3285. Is he working it? Yes.
3286. And keeping it on as a going concern? Yes.
3287. How is he doing? I have not had returns for last year's crop; but I do not think he is doing very well on it.
3288. Do you know what they are now paying for water? Twenty shillings per acre per annum, I think, still.
3289. Coming back to Pera Bore: you, I understand, were sent to Pera as a man having had some experience of fruit-growing on an irrigation settlement? Yes.
3290. How did you find the place as regards its laying out for the purposes of irrigation—was it satisfactory or not? Very faulty.
3291. In what respect? The land had not been laid out at all. Orchards had been planted, but no attempt had been made to grade the land so that we could get the water on to it with the least possible waste.
3292. Have you tried to remedy that? Yes, we have been grading and grading; but it is very difficult to grade throughout an orchard that has been planted.
3293. Do you mean your own place, or for the settlers? I am speaking only of the Government farm. As far as I could judge when I first came, the settlers had made no attempt to grade. They had followed the example set by the manager or whoever was in charge of the work at the Government farm. It was peculiar the way the place was started. It was originally a public watering-place, and the Department decided that they would plant a certain area, and they went on adding to this without any system at all. The officer then in charge had had no practical experience of the work, and, of course, it is of no use a man trying to lay out such a place unless he has had some experience.
3294. The system of supplying water was by raised flumes of sheet-iron? Yes.
3295. Is that still in vogue? Yes.
3296. How have you altered the 60 acres you are now irrigating—have you altered the whole level of it? Yes; and I have put in new surface drains. I took away all the distributing channels on the Government farm. I had to do so.
3297. Is it working more satisfactorily now? As satisfactorily as we can work it; but, as I have said, it was so difficult to grade while the trees were in, and I simply did the best I could without removing the trees. Planting an orchard where you depend on the natural rainfall is totally different from planting one where you are going to irrigate. In the latter case you must have the land in such a way that the water will run from one end of it to the other, otherwise the cost of working your land will ruin you. I could quote instances at Mildura where the men paid from £1 to £3 an acre for grading alone.
3298. Are the farmers at Pera taking advantage now of your experience? Yes, I think they are. They are all regrading now. They have been grading ever since I have been at Pera. For three years they have been grading. Having only 20 acres each, if they had, even twelve months after taking up the land, begun grading it thoroughly they could have made more use of the reduced supply we have been giving them. Without grading, you have waste of water, and there is so much land you cannot get the water to unless you grade.
3299. Do you think the soil and the situation at Pera Bore are suitable for the purposes of a farm? I think they are suitable for fruit-growing. I do not think that, taking into consideration the area, it would ever pay the settlers to farm; but I think it will pay them to grow fruit for canning and drying purposes, and also to grow garden supplies.

3300. Do you think that a man with one of these 20-acre blocks, keeping the larger proportion of it under fruit-trees suitable to the climate, and using the other portions for market gardening, and also for growing crops for his own horses, could make a living out of it? I am certain of it, if he would go the right way to work. To make these holdings a success it is necessary that there should be men there who are practical farmers, or, at any rate, men who will learn, taking advantage of the experience of other people. C. H.  
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3301. The class of crops you think would pay there would be fruits for drying purposes? Drying, canning, and jam making.
3302. Considering the long distance of Pera from a big market, do you think it would pay to pack fruits and send them to Sydney or other large centres of population? I am rather of opinion that we could make a success of shipping fresh fruits from here.
3303. What kind? Apricots, peaches, and figs. Those are the fruits that will carry best, and the fruits that really do better at Pera than any other class. We were very successful at Mildura in shipping fresh fruit to Melbourne, although we had a very much harder road to go than we have here. We had no train there. I made several trips for the company from Mildura to Swan Hill. We had to go practically 350 miles by river and 170 or 180 by rail. We had a certain system of packing our fresh fruits in chip baskets, which is really the Californian system. If fruit could go from here to Sydney by the mail train, the fruits being early here, we could get the first and highest market prices. Drying fruits will be the principal industry at Pera. In this district alone there is a large market for dried fruits.
3304. The Government farm is not yet reproductive, is it? No.
3305. So that at the present time, as regards the expenditure that has been incurred in connection with the bore, in the erection of buildings, in the putting up of fencing and fluming, in the employment of a manager and hands, and so on, the only return is £100 a year for the twenty blocks of land and whatever is received for the water that is supplied to travelling stock? Yes, and a small revenue from the farm. There has really not been very much yet.
3306. So the affair must only be looked at at the present time as a kind of experiment? It is quite in its experimental stage yet.
3307. And it cannot be regarded in any way as a reproductive work? No.
3308. When the fruit-trees begin to bear, I suppose the Government may look for some return? Yes; I have told our Department that in three years' time we ought to pay for all the work done there, and I really think that can be done, provided, of course, that we have no unforeseen difficulties.
3309. *Mr. Shepherd.*] What is the gross annual outlay for the Government farm at Pera? I should say from £500 to £600 a year; I cannot say more accurately from memory.
3310. You have 60 acres under your control? Yes.
3311. You have 32 acres of fruit trees? 32 or 33 acres of fruit-trees and vines.
3312. How long have those trees been planted? Some are in their fourth year, and some were planted last year.
3313. So you have not been able to judge, so far as their producing qualities are concerned? No; we have had no return at all from them yet.
3314. What kind of crops are you growing on the balance of the land? Purely fodder crops.
3315. Have you estimated the return? Not yet.
3316. You have no idea what the return is per acre? I cannot say just yet.
3317. Are the citrus fruit-trees in their fourth year? A few trees are, but the bulk of the citrus trees I put in about two years ago.
3318. They have not borne much yet? Only a few.
3319. The stone fruit-trees—peaches, at all events,—I suppose, bear pretty freely? No; they have had only one or two on.
3320. You say the Mildura land is much more easily worked than the Pera? The bulk of it is.
3321. You attribute that to the difference in the quality of the soil? Yes.
3322. Do you find that the soil at Pera puddles, and that in a short time it becomes almost impervious to water? Yes.
3323. Have you any means of breaking the crust after it forms? The only way is not to let it get hard—as soon as the ground can carry the horses, to put the cultivators on.
3324. You just fill the trenches and allow the water to soak in gradually? Yes. In irrigating, the drains should never be left there permanently. They should be struck out every time the water is required, otherwise the value of the irrigation is gone—the evaporation is so great.
3325. You say there are eighteen 20-acre blocks and two 24-acre blocks? Yes.
3326. And men have taken them up who have had no experience whatever? Yes. I think that, with the exception of two or three, the men have not had any practical experience at all.
3327. These men surely must have expected to get some instructions? Quite so. They were in exactly the same position as we were in at Mildura.
3328. It is no part of your duty to give them instructions? I am there if they require instruction.
3329. And if they apply to you for information you are willing to give it? Certainly. I am only too happy to give it at any time, and some of them do avail themselves of the information they can get.
3330. Have they taken advantage in many instances of the opportunity of acquiring information from you? Yes. Furthermore, apart from getting information from me, they have the advantage of meeting the different experts attached to the Department who periodically visit Pera.
3331. You say that you do not think there are more than about two getting a living there exclusively from farming? I would not say with any certainty that there are more than two.
3332. Do any of them employ labour? Yes; I think that every man on the settlement employs labour.
3333. At Mildura you used river water? Yes.
3334. Do you think the river water preferable to the bore water for irrigation? I think I would sooner have it. We know all about the river water. We have yet to learn about the bore water.
3335. Do you not think that the alum which is contained in the Pera bore water is, to some extent, a disadvantage? No; it has not shown any bad effect in the crops; but the river water, of course, has so many natural manurial properties.
3336. Have you the means of forming an opinion as to whether the settlers at Pera are satisfied with their prospects, as a rule? I think some some of them are. The opinion is divided as to the chances of success.

- C. H. Gorman. 3337. I suppose they have not had time to form a proper opinion? No. We have really had bad luck in the flow decreasing; otherwise, I think, the settlement would have shown better returns.
- 25 Sept., 1899. 3338. I believe that the supply of water from the bore has diminished nearly one-half? More than one-half.
3339. Has any scientific opinion been given as to the cause of the failure? I believe the Department have had an opinion, but I do not know what it is. I have not had it sent to me. It was at first thought that there was an obstruction of the bore, but the Department took means to find out whether there was any obstruction and cleaned the bore out, but no more water was obtained. I think the matter was submitted to Professor Jack, of Queensland, but I do not know what his report was.
3340. I think you have a nursery for propagating young fruit-trees? Yes; a small nursery, so that we may send out acclimatised trees, true to name, especially for this district.
3341. Is there an idea going about that people are not able to procure trees true to name from private nurseries? There has certainly been that idea going around.
3342. Do you think that that opinion is at all general throughout the Colony? I would not like to express an opinion.
3343. Do you think it is, in this neighbourhood? I have not found it, in this neighbourhood. Any stock that I have had from nurseries has certainly been exactly what it was labelled. There have been objections as to the stock the nurseries have worked on. I do not make that charge myself; but it seems to be the general opinion.
3344. Have you found that the trees produced in this district are more suitable for this district than those brought from places outside it? Undoubtedly, those trees propagated from cuttings are; I will not say from the worked trees, because I have not had time to judge yet. Under irrigation, very much stronger nursery stock can be grown than by natural rainfall.
3345. You say that when you left Mildura your trees were about six years old, and were just coming into bearing;—what kind of trees were those? Peach and lemon trees. The trees were not six years old.
3346. I suppose that some were five years old? They were just coming into bearing.
3347. A tree six years old is supposed to be in its perfect state? Yes.
3348. Do you not think it would be an advantage if periodical lectures were given to assist the settlers at Pera? I think that practical demonstrations would be very much better than any lectures.
3349. *Mr. Watson.*] I suppose that most of the men who have gone on blocks at Pera have had but little capital? Very little.
3350. One would imagine that it would be necessary to have some capital in order to have a reasonable chance of success there? Quite so. A reasonable amount of capital is necessary, there is no doubt.
3351. Where you have to wait some years for your orchards to bear, and consequently have only a portion of your land in profitable use until the orchards bear, one would imagine that it would require capital to make the undertaking a success? Quite so.
3352. At Mildura, after the men had paid for their land, did most of them have some capital? Yes. The company always advised any man who came to take up 20 acres of land to be prepared to put his hands on £600, and I think everybody there did.
3353. That is, after he had paid for his land? No, altogether. The men there had ten years deferred payment for the land, or of course they could buy it outright if they preferred to do so, and had the necessary money.
3354. The company reckoned that a man taking up a 20-acre block required at least £600? Yes, at least £600.
3355. Irrespective of the cost of the land, he would require a capital of at least £400? Yes.
3356. So the men at Pera, running their land on the same basis as at Mildura, would require £400 capital each? Quite so.
3357. That is, if the Chaffey Brothers' advice was good? Yes. Chaffey Brothers never for a moment supposed that everybody at Mildura would go in for market gardening; but at Pera everybody has, to some extent, gone in for market gardening, which has tided them over, in conjunction with contract work which they have obtained round about.
3358. It seems, from what we hear, that there are one or two people on the banks down the river who are irrigating, on a small scale, practically black soil—stiffer, more clayey soil than you are working at Pera;—do you think that it would be a sensible thing to attempt to do that extensively? Unquestionably. I like the black soil. I am speaking only from results I have seen on the black soil—on land similar to that black soil between Bourke and Pera, the plain which you came across the other day.
3359. There seems to be a general impression amongst the people here that nothing but the extreme red soil will be of value for irrigation? As against that, I may say that at Belalie station they are getting wonderful returns from irrigating with bore water on black soil. I understand that they have from 80 to 100 acres of wheat in there and fruit-trees round the homestead, and that the lemons and oranges are doing wonderfully well, although with apparently little attention, although the trees were eight or nine years old before they were pruned.
3360. It would seem from that that there would be a much larger area of land down the river—seeing the greater part of it is black soil—fit for irrigation, than we supposed, always provided, of course, that the people there could get a supply of water for it. We were informed that between Bourke and Louth there were only three or four places where the red soil comes close to the river, and it has been assumed by a number of witnesses that unless you have red soil it is not worth while to start irrigation; but from what you have just said it would appear that, so long as the people had enough water, quite a large proportion of the river-banks would be fit for irrigation? I will not say the river-banks, but I am certain the black soil would be. If it can be done in one place, there is no reason why it should not be done in another, in the same district.
3361. I think you stated that you found the land at Pera much stiffer to work than the land at Mildura? Yes.
3362. Do you think that the black soil would be easier or more difficult to work than the red? I think easier.
3363. Is it not supposed to contain more clay? It may have a little more clay.
3364. What would make it easier? It is very much more friable. The red land packs together so hard. The sand seems to be so fine.



3365. You think the clay would help to separate the soil? Yes; I mixed a lot of the black soil with the red on a small plot near the cottage, and the wheat on that plot looks healthier, fresher, and has more body than the wheat on the red soil itself. I should prefer the black soil if I were choosing some for myself. C.H. Gorman. 25 Sept., 1899.
3366. What is ordinarily termed the black soil—plain country, you think, is quite suitable for irrigation? Yes.
3367. You think that in any case you would require to have the cultivation a little way from the bank of the river, so as to provide against the contingency of flood? Yes; that is, cultivation to any extent.
3368. If you were going in for the cultivation of fruit it would not be advisable to select a spot that was liable to inundation by floods? Yes.
3369. That would kill the trees? Quite so.
3370. It was stated on Saturday by one of the witnesses that he knew of land some little distance back from the river bank which he thought was suitable for irrigation, both from its being above flood-level and owing to the quality of the soil; in that connection can you tell us what would be the extreme distance that it would be payable to take water, assuming a piece of land 5, 6, or 8 miles away from your pumping station on the river bank;—how far could you afford to carry the water by means of a concrete channel, or by any other method, back to that land? At Mildura the water is carried back 12 miles from the river. There are 180 miles of channelling at Mildura.
3371. At Mildura do they charge the same water-rate, irrespective of the distance from the pumping-station? Yes.
3372. Of course, that is practicable where you have a large number of consumers? Yes.
3373. You think, then, that you would be justified in attempting, with a supply of water, to cultivate land 8 miles from the river bank? Yes.
3374. That would practically mean that, given sufficient water for pumping purposes, it would be practicable to pump it from the river at Bourke to supply a place at Pera? Yes.
3375. You think that would pay? I am certain of it.
3376. What are the considerations against the carrying of water—evaporation, of course, for one thing? Yes, evaporation.
3377. And the cost of the channels? Yes.
3378. Are the channels very costly if made with concrete? Yes; they cost from £3 to £7 per chain.
3379. You have at Pera, how many hundred acres arranged for cultivation? 500 acres.
3380. To supply that area from the river here, what do you think the main channel would cost per chain? It would cost £6 or £7 per chain; but, of course, it all depends on how you have to build the channel up, in consequence of the level. You cannot arrive at the cost of the channel unless you know what the level is going to be. You may have to put flumes over some high or low places, as the case may be.
3381. What percentage do you estimate is lost by evaporation in the fluming at Pera? 10,800 gallons out of 250,000 gallons.
3382. That would be something under 5 per cent.? Yes.
3383. Is it customary always to convey water by open channel over long distances like that? Yes, always.
3384. In preference to pipes? Yes.
3385. And channels in preference to fluming also? Yes, except where you have bad places to cross.
3386. Supposing you were pumping from the river, you would prefer to use open channelling to anything else? Yes. We have always used it at Mildura. We have very little piping in use there.
3387. I suppose the Mildura practice is based on the experience in California and other similar places? Yes.
3388. As to a market, do you think that there would be room for a number of settlements similar to the one at Pera, as regards area and the same object? There certainly would not, so far as market gardening is concerned. Three settlers at Pera can supply the whole of this district with market garden produce. But I think that in the matter of dried fruits you could have as many settlements as you liked about here, and could always find markets, provided that the article offered for sale were good.
3389. Plenty of room in the outside markets? Yes.
3390. Dried fruits carry well? Yes.
3391. You could send them to the world's markets without difficulty? Yes; in fact the fruit we sent from Mildura, from four and a half to five years ago, beat the California fruit.
3392. From what point of view? As to price. That was in the London market, too.
3393. Do you think that was due merely to the novelty of the importation, or to the article's own intrinsic value? I think it was the article itself. It was an exceptionally fine article, and we took a lot of trouble with it.
3394. Did it pay at the price you got? Yes.
3395. I mean, considering the amount of trouble to which you had gone? Yes.
3396. So your opinion is, that there is plenty of opening for the selling of dried fruits and similar produce, if people have the opportunity of going in for it? Yes, I feel certain of that, in New South Wales alone; because there is very little drying going on in New South Wales. I understand that a great deal of Mildura dried-fruits is used in Sydney. They are now drying on this side of the river at Mildura.
3397. Is the climate at Bourke and further down the river as suitable as the climate of Mildura for the natural drying of fruits? Quite as suitable.
3398. In giving your opinion as to the suitability of the land near the banks of the Darling River for irrigation and cultivation purposes, I suppose you would not advise the planting of crops in places that were liable to be flooded? Certainly not.
3399. If the land has been denuded of the soft portion, and has been left of a cakey character, would you advise cultivation of that portion? No, I would not.
3400. I suppose we may take your opinion as being one of a general character, without your having examined the nature of the banks? Yes. I have never been far down the river.
3401. It is your opinion, but not from having examined the character of the whole of the country down the river? Quite so.

John Hedrick, secretary, Stock Board, Bourke, sworn, and examined:—

- J. Hedrick. 3402. *Chairman.*] The Inspector of Stock is ill at present? Yes.  
 25 Sept., 1899. 3403. How long have you been here? I came here at the end of last year.  
 3404. You produce an extract from the books of the office showing the stock returns for what years? 1894 to 1898 inclusive.  
 3405. These are correct? Yes, as taken from the books.

RETURN of Stock in the District of Bourke for the Years 1894 to 1898, inclusive.

Year.	Horses.	Cattie.	Sheep.	Camels.
1894 .....	8,639	14,541	2,436,226	• 652
1895 .....	7,780	12,828	1,502,672	545
1896 .....	7,853	15,278	1,969,906	528
1897 .....	6,556	14,763	1,982,411	
1898 .....	6,638	14,422	1,430,822	631

3406. That return shows that during the year 1898 this district suffered a loss in sheep of 551,589? Yes.  
 3407. And since then the loss has also been very great? Yes; about 50 per cent., anyhow.  
 3408. Owing to the prolonged drought? Yes.

WEDNESDAY, 27 SEPTEMBER, 1899.

[The Committee met at Yanda station, Darling River, at 8:30 a.m.]

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | WILLIAM THOMAS DICK, Esq.  
 JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Henry Dean, Yanda station, sworn, and examined:—

- H. Dean. 3409. *Chairman.*] How far is this station from Bourke? Sixty miles by river, and 25 miles by road.  
 27 Sept., 1899. 3410. *Mr. Watson.*] How long have you been on the river? About eighteen years.  
 3411. You know that the main business the Committee are considering is the question of locking the river, with the view of helping navigation? Yes, I believe so.  
 3412. So far as the people round here are concerned, would it help them in any way if the river were locked and made secure for navigation? It might in the way of getting goods up the river; but that is the only way I can see. I mean people away from the railway, at Bourke.  
 3413. Supposing the river were navigable right down, do you think that the Yanda wool and the wool of any adjoining stations would go to Bourke, or down the river to some other outlet? It would go to Bourke at the present rate of carriage, and under present conditions.  
 3414. If the river were locked down as far as Menindie and no further, do you think the effect would be to draw trade towards the terminus of the railway at Bourke, or wherever else it might happen to be on the river? If the locks kept the water up so that steamers could carry, undoubtedly it would. Carriage would be cheaper by boat than by team, and naturally the wool would go the cheapest way.  
 3415. Do you think that the railway terminal points would have an influence with the locked river for a considerable distance on either side? Yes, I think so.  
 3416. The wool from this station, I understand, goes to Bourke? Yes.  
 3417. Have you ever sent it down the river? Years ago.  
 3418. Not recently? Not during the last fifteen years.  
 3419. That is, before the construction of the railway to Bourke, I suppose you sent it down the river? Yes.  
 3420. Since then you have regularly sent it *via* Bourke and the railway? Yes.  
 3421. Do you get your station supplies from Bourke? Yes.  
 3422. I notice that you have a small irrigation patch at the homestead? Yes, just for the station use; that is all.  
 3423. Is that black soil? Yes; all black soil.  
 3424. How is it situated with regard to floods? The 1886, 1890, and 1891 floods were all over that patch.  
 3425. For any considerable depth? In 1890, 3 or 4 feet.  
 3426. Have you any fruit-trees in? Yes.  
 3427. Can you give us a rough idea of what you have in that patch? Vines, peaches, apricots, nectarines, figs, mulberries, almonds.  
 3428. You grow vegetables also, I suppose? Yes.  
 3429. What was the effect of the flood on your fruit-trees, if any? It killed the stone-fruit trees. Mulberries, figs, and vines, a pear-tree, and a couple of apple-trees were left.  
 3430. It seems that it would not be wise, as a rule, to attempt irrigation on land liable to floods, so far as stone-fruit is concerned? Not from a business point of view.  
 3431. But, with irrigation, how have the fruit-trees and other things turned out on that black soil? Fairly good.  
 3432. The results have been fairly good? A lot better in a naturally good season, than under irrigation. Perhaps we do not understand all things in connection with irrigation; but, nevertheless, that is my experience.  
 3433. How far back would you have to go from your homestead to get land beyond the reach of any flood that has been known? A quarter of a mile.  
 3434. So that, presuming you could get the water pumped cheaply from the river, if you were to start irrigation a quarter of a mile back, there would be no danger of flooding? No. 3435.

H. Dean.  
27 Sept., 1899.

3435. Is there much land around this homestead, back from the river and above flood-level, which is of value for irrigation? We may say it is all high land about here, except just a fringe on the river.
3436. Do you know the river between here and Bourke? Yes.
3437. Can you say, roughly, how far back from the river, on the average, the land liable to flood extends? About 10 or 12 miles.
3438. That is between here and Bourke? Yes.
3439. So that, so far as making a business of irrigation between here and Bourke is concerned, you would require, on the average, to go 10 or 12 miles back before you would have land suitable for permanent irrigation? Yes; out of the reach of high flood-water.
3440. Then, going down the river from here, is there much land that is high, comparatively speaking? From here to Louth, you may say, the red soil runs nearly all the way down close to the river.
3441. How far is that by road? Forty miles.
3442. By river, approximately how far? 100 miles.
3443. And you say that the high land predominates between here and Louth? Yes.
3444. How far back between here and Louth would you have to go, on the average, to get this high land? I cannot say exactly, but I should not think more than a mile or so. It is red soil all the way, travelling on the road, barring a few patches.
3445. The red soil, which is generally on the higher land, comes closer to the river between here and Louth than it does between Yanda and Bourke? Yes, considerably.
3446. The question of irrigation, of course, is affected by the proposal the Committee are considering, from the fact that if a certain quantity of water were conserved for locking purposes, a certain quantity more would probably be available for irrigation;—do you think that if that water were made always available by means of weirs, and so on, people along the banks would be likely to use any of it for irrigation to any extent? I do not think so.
3447. Why? The expense of pumping and raising the water would be too great, and there is no market.
3448. Supposing you were to have suitable land, and plenty of water, would there not be as much chance of a market for an irrigation settlement between here and Louth as there would be for one at Mildura? Judging from past experience of the irrigation settlements, I do not think it would pay.
3449. We were informed by a witness in Sydney that if the water were made available by means of weirs and locking, each of the pastoralists down the river would probably put a fair-sized area of his own land under irrigation, with the view of making sure of saving in drought-time at least his best stock? I think it is doubtful.
3450. Do you not think that it would pay him to do that? I do not think so, considering the rate at which you can get forage.
3451. When you say, "considering the rate at which you can get forage," do you refer to ordinary seasons, or to times of drought? Times of drought.
3452. Even then you think you could get forage more cheaply than you could grow it yourself by irrigation? Yes. I do not think it would pay to feed stock in that way; it would be too expensive to raise the fodder yourself, or purchase it for feeding sheep.
3453. Of course if you had the river locked, you would have permanent and easy means of communication by boats for heavy loads, such as fodder would be, and you think that with a locked river they would prefer to get fodder for their sheep up by boat from some more favoured part of the colonies rather than grow it themselves? I think that, with a good river, fodder from more favoured portions of the colonies would be so cheap that people would economise by buying from outside rather than by growing it by means of irrigation, but not for feeding sheep.
3454. Is the black soil that you are cultivating here very difficult to work? Yes; it is very stiff.
3455. A considerable quantity of clay? Yes; I may say that this is a bad specimen of the black soil.
3456. It is worse than the usual run of black soil? I think it is.
3457. Does it entail much expense in the way of labour, for the small plot you have here—I mean, comparatively speaking? No, not much expense.
3458. How much have you under irrigation, including the garden? Not more than 2 acres.
3459. Do you put in anything in the way of green manure, or other agents, to make the soil more friable? I just top it with sheep manure.
3460. Does that have the effect of making it freer? Yes; it has that effect. It opens the soil.
3461. Do you think that the experiment that has been made here, in regard to irrigation, is encouraging, or otherwise? No, not to go to any large extent.
3462. In 1890 your stone-fruit trees were destroyed by the flood? Yes.
3463. Did you put in any other trees in their place? Yes.
3464. You do not have that kind of flood very frequently? Very rarely. Of course, the land itself is suitable for irrigation, it being very level. It would be easy to carry the water over the soil.
3465. There would not be much expense for grading, with the view of carrying water, as they do in the settlements, if irrigation were decided upon? No; but I think it would cost so much to raise the water, and get it on to the land, that it would not pay.
3466. Do you think the quantity of water required would be very great? Yes.
3467. Have you any idea what you put on your small plot here in dry seasons? It takes pretty nearly two days in the summer-time with a 4-inch Tangye pump to irrigate half an acre.
3468. How frequently do you apply the water in a dry time? We require to put it on once a month.
3469. Is that for lucerne, or for trees? For lucerne.
3470. Of course, you water lucerne more heavily than anything else? We thoroughly soak it.
3471. How frequently do you water the trees? They want it as often.
3472. So, roughly speaking, the whole of the land under cultivation requires watering once a month? Yes—that is, in a dry season. When the river is high you can work the pump better. But, in a dry time, the river is, of course, generally low.
3473. The lift is greater in a dry season than at other times, owing to the lowness of the river? Yes.
3474. What height do you then have to raise the water? I suppose 30 feet of a perpendicular from surface of water to top of bank.
3475. Coming down the river we have seen a good deal of black soil, and here now we have some red soil;—how do the two compare for pastoral purposes? For pastoral purposes the black soil is far ahead of the red.

- H. Dean. 3476. Does it grow grass more quickly after rain? No; the red soil has quicker growth, but the black soil has better quality grass and more lasting.
- 27 Sept., 1899. 3477. Have you tried any feed crops here on the red soil, depending on the natural rainfall? Yes.
3478. What has been the result? We have got very good crops in decent seasons, but during the last four years we have not been able to get anything.
3479. Prior to those years, when you had a moderate season, what did you get from it in the way of hay? I never bothered about ascertaining the weight, but we had a very good crop.
3480. To what height would it grow? About 3 feet.
3481. And fairly headed? Yes.
3482. Wheat, I suppose? Yes.
3483. You look upon that as a very fair crop? Yes.
3484. So you do not seem to think, on the whole, that the prospects of any adequate return resulting from locks and weirs on the Darling are encouraging? No, I do not.

[The Committee met at Gundabooka station, Darling River, at 2 p.m.]

David Langlands, manager, Gundabooka station, sworn, and examined:—

- D. Langlands. 3485. *Chairman.*] How far is Gundabooka from Bourke by road? Thirty-five miles.
- 27 Sept., 1899. 3486. How long have you been here? Eleven years.
3487. *Mr. Shepherd.*] What is the extent of the holding? About 230,000 acres.
3488. What number of sheep have you running? At present about 20,000.
3489. Of course, the holding is not fully stocked? Not if we had a good season.
3490. Has there been much falling off the last few years? Very considerable.
3491. How many sheep were you running about five years ago? 65,000.
3492. Have you had a pretty good return of wool this year? No; a very poor one.
3493. That, of course, is attributable to the drought? Yes.
3494. Are you running any other kind of stock here besides sheep? Cattle. We have at present about 850 cattle; but they were bought only about four months ago.
3495. So you cannot judge yet how they will do? No.
3496. What description of grasses and herbs have you here chiefly? The principal edible grasses are mulga, blue-grass, crowfoot, star-grass, umbrella-grass, and summer-grass.
3497. Have you no Mitchell-grass? No.
3498. And no saltbush, I suppose? Very little. The saltbush we have is not of any value.
3499. Have you noticed any of the grasses disappearing since you came here? Yes; blue-grass is disappearing rapidly, and also mulga-grass—the two best grasses we have. We also have No. 9 or wire-grass, the seed of which is very bad for the wool, though the grass itself, when green, is good fodder grass.
3500. Have you noticed that it is generally the grasses which the stock like best that disappear soonest? Yes; and that the rabbits like best. We are very heavily rabbit-infested here.
3501. Is much of the run paddocked? It is all paddocked.
3502. Do you carry out a system of periodic "spelling"? As far as possible. We have never actually been overstocked.
3503. I mean a system of "spelling" for seeding purposes? As far as possible I carry that out.
3504. I suppose you get short of feed, and have to use that grass? Yes.
3505. What crops have you tried under irrigation? Wheat, lucerne, green or skinless barley, oats, and Cape barley, besides potatoes and garden vegetables.
3506. Have you kept a record of the returns? No.
3507. I suppose you can hardly say the return per acre you have had from those crops? No.
3508. Have they all done really well? No; they have done far better than they would have done without irrigation, but not as well as they should have done, some of them not being suitable for irrigation, I think.
3509. Have you used manure as well as irrigation on all the crops? Not on all of them; but on some of them.
3510. Have you noticed any great difference between the crops you did manure and those you did not? Yes; a very considerable difference.
3511. I suppose the advantage is in favour of the crops you did manure? Yes.
3512. What kinds of fruits have you tried to grow here? Oranges and lemons of various kinds, apricots, and peaches.
3513. Do you find the orange and the lemon do really well here? Remarkably well, and the apricot gives a very good crop, too.
3514. And grapes? Yes.
3515. Are you of opinion that it would pay to grow fruit here for market? I am of opinion that oranges and lemons would pay very well to grow for market. We get fruit here six weeks or two months before it is ready at Parramatta.
3516. Have you ever tried their keeping qualities? Yes.
3517. What means have you adopted for keeping them? The best means I have found is packing them in sand, dried artificially—baked.
3518. Did you ever try packing them in dry straw? No; but I do not think it would be suitable up there.
3519. Do you attempt to dry the fruit at all before you put it in the sand? No; pack it straight from the tree. I may mention that I have preserved some of the grapes for household use by drying them, and have kept them for four, five, and six months.
3520. How did you treat the grapes? Dried them on galvanized-iron; I laid them out in the sun, and the sun dried them.
3521. Did not that shrivel them at all? Yes, it shrivelled them; but when they were cooked they were very good.
3522. *Mr. Dick.*] Part of this scheme has been said to involve a system of irrigation by which each landholder along the course of the river might be able to successfully cultivate from 200 to 400 acres of his holding near the river as a means of insurance against drought;—do you think that, if the river were locked,

locked, the pastoralists along the river would find it to their interest to indulge in such a departure from their old-established methods? There are other things hinging on that, because if a pastoralist put up an expensive plant, he would need to have some surety that he was really putting it up for himself, and not for the Government—that the land could not be resumed from him in a few years' time; but if a man were assured in the possession of 300 or 400 acres of freehold land, I think it would then be done.

3523. How long have the leases now to run in the Western district? Fifteen or sixteen years.

3524. You do not think that is long enough to induce a man to go in for irrigation to such an extent? No.

3525. From your experience of irrigation on your holding here, do you think that it is practicable, given those conditions which you mention, to irrigate considerable areas along the course of the Darling? Yes.

3526. What market do you anticipate would be supplied by the cultivators along the river? I take it that we should cultivate chiefly for our own use in periods of drought.

3527. Can you say what has prevented the pastoralists from doing that, seeing that they have practically a never-failing supply of water? We are of opinion that it is not a never-failing supply by any means, for it gets so low, and the water is so hard from the minerals running into it, that it is not fit for irrigation at that time.

3528. You have attempted to cultivate land near the river, too, without irrigation, have you not? Yes.

3529. What has been your average experience? About one good crop in five crops.

3530. Presuming that a man went in for a properly organised irrigation plant, do you think it would pay him to feed his stock in times of drought on the produce of an irrigation farm? Yes.

3531. Can you give us any comparison as to the respective results derived from irrigated land, and from land cultivated in the ordinary way depending entirely on rain—is the produce very much superior? I do not know that it is superior; but there is more of it. I should say there would be 5 tons on irrigated land where there would be 1 ton on non-irrigated land.

3532. Would the locking of the river have any effect as regards the disposal of your wool; would you still continue to send it to Bourke, or would you take advantage of the highway of the river; would it offer you any special facility in the way of reduced freight? It would be hard to say, because we do not know whether there would be tolls on the river, or something else, to prevent our sending the wool down the river. If the freights were the same down the river as they are now, I should probably send my wool down the river.

3533. The freights vary according to the state of the river, do they not? Yes.

3534. When the river has been a good river for a long time, freights have become very low? Yes.

3535. Presuming that the freights on the locked river would be as low as they are when you have a good river for a considerable period, would you then send your wool down the river? Yes.

3536. *Chairman.*] What lift have you with your pump? At present we are lifting 55 feet.

3537. Is that about the maximum height you can lift? No; we have lifted up to 65 feet. However, that is not merely to the top of the bank; but 10 feet above it. The height is 55 feet from the top of the bank to the lowest river. A 55 feet lift would be needed for irrigation.

3538. You are using the water from the scour for irrigation at the present time,—you having a wool-scouring plant on the edge of the river? Yes.

3539. Can you tell us what it cost you for irrigation per acre, or can you estimate it in any way? At present I cannot estimate it, because I have not gone into figures in regard to it. It practically costs me nothing to put the water on the land, because I have the scour plant already on the ground, and I use the surplus water from the scour to irrigate with.

3540. Have you carried on irrigation independently of the water from the scour? Yes.

3541. At what cost? I am not able to compute the cost.

3542. As regards the lucerne crops and the wheat crops that you have in, do you look upon the lucerne from irrigation as a success? Yes.

3543. And comparing the crop on a piece of irrigated land with the crop on the adjoining piece, which is not irrigated, the result is very marked in favour of irrigation, is it not? Yes, very marked.

3544. Your operations have been on the red soil? Yes.

3545. Do you know of any similar irrigation works on the black soil? Yes; at Winbar, lower down the river, on the river banks, and at Jandra and Yandra.

3546. With what result? In some cases, very good results. Winbar has had very good returns from irrigation.

3547. Referring to your reply to a question that Mr. Dick asked you, do I rightly understand you to mean that you think that it would be possible, and also payable, to cultivate a sufficiently large area of land to grow crops which would sustain your starving stock of 40,000 or 50,000 sheep in a bad season on this run? Yes; in a bad season it would pay me to grow them instead of employing scrub-cutters.

3548. You do not know exactly when a bad season is coming; would your procedure be to grow crops every year and keep on storing them? Yes; store up a certain quantity.

3549. You think that would be practicable, and also remunerative? I think so.

3550. As regards the river and its level, what would be the height necessary to enable you to carry on irrigation to advantage? The maximum lift to the top of the bank would have to be 45 feet to enable us to carry on irrigation profitably.

3551. The present level of the river, namely, 45 feet, is about 9 feet above the ordinary summer height of the river? Yes.

3552. So that, to enable you to carry on irrigation with advantage, locking and weiring the river would be necessary to maintain about a 45-foot level? Yes, to just about maintain that.

3553. What do you look upon as the best kind of soil for the growth of crops and fruit-trees, and also for household garden purposes? I do not know that one is superior to the other. I have seen very good crops on the black soil as well as the red.

3554. But is not the red soil easier to work and maintain than the black soil? I think it would be.

3555. The proposal that we have before us is to lock and weir the river from Bourke to Menindie only; and I understood you to say that you agreed that that work would be the means, possibly, of keeping the wool trade for the Bourke railway? I should think so.

3556. But if the river work were carried further than that, and were taken as far down (say) as Wentworth, then the tendency, I suppose, would be to divert the carriage of wool to the southern colonies? I should think so, as a matter of business.

3557.

D. Langlands.  
27 Sept., 1899.

- D. Langlands. 3557. So, the river work, if carried out as far as Menindie only, with money expended by New South Wales, would be of advantage to New South Wales; whereas, if the river work were carried further than Menindie, with money expended by New South Wales, it would be of advantage to the other colonies;—would that not be so, if the trade went away? Yes, I should think it would.
3558. In this large paddock, adjoining, you planted five crops without irrigation? Yes.
3559. In what years? 1890, 1892, 1893, 1894, and 1895.
3560. With what results? In 1890 I had a good crop; but in the four succeeding years there was no crop.
3561. Do you think that that was owing to bad seasons, or to some other causes? Owing to the season not being suitable.
3562. Was that a sufficient experience, do you think, to show that attempting to grow large crops without irrigation could not be looked upon favourably? I have found that to be my experience.
3563. *Mr. Watson.*] You said, I think, that you thought that any work done in the way of irrigation, following on the weiring of the river, would be confined to fodder crops, and so on? Not necessarily. I think that fruits could be grown very profitably up here—the sorts to suit the inside markets.
3564. Do you think that there would be any chance of finding an outlet for dried fruits? Yes.
3565. Do you think that that could be done from places along this river? Yes, I think it could be done; but I do not think it would be profitable unless worked with something else.
3566. Why do you think that? There is always the chance of a failure of a crop. As a commercial undertaking, I think that farming, unless it is mixed farming, will not pay. It has not proved profitable at Mildura.
3567. We are informed that at Mildura the settlers had to pay high prices for the land, and high rates for the use of the water; and it is quite possible that has helped to keep them back;—but so far as you know, there is nothing to prevent stone fruits, or fruits suitable for drying, from growing well here? No; there is nothing to prevent it.
3568. You think you could get land suitable, with the application of water, for the growing of those fruits? Yes.
3569. And the climate is also suitable? Yes.
3570. If other places similarly situated have been successful, there should be no difficulty in this case? No.
3571. As to the quantity of land suitable for irrigation that is available, it would not be wise, I suppose, to put irrigation settlements on land liable to flood? No.
3572. Is there much land within a reasonable distance of the river, either red or black soil, between here and Bourke, which is sufficiently high to be suitable for irrigation? No; there is very little.
3573. For how far back from the river is that so? You would have to go, in some cases, 10 miles back, but in other cases the good land runs on to the river.
3574. What would the average be, roughly speaking? I should say about one-fifth of the river bank between here and Bourke would be composed of good land.
3575. That would be a fairly large area of land, would it not, in the total? Yes.
3576. Between this place and Louth is the land more suitable for irrigation close to the bank of the river? No; it is about the same as upwards. There is perhaps more red soil above the flood-level than there is up the river towards Bourke.
3577. At what proportion would you put the good land between here and Louth? About one-fourth.
3578. If one-fourth of the land between here and Louth is suitable for irrigation, that would probably be a large enough area to exhaust all the supply of water likely to be stored up in the river bed? Yes.
3579. So, for all practical purposes, it would seem that there is sufficient good land along the banks of the river? Yes.
3580. We had it given in evidence that, allowing for evaporation and various losses, a height of 3 feet in the bed of the river would be sufficient to irrigate 24,000 acres between Bourke and Menindie? Yes.
3581. If the statement is true that it requires 3 feet of water from Bourke to Menindie to supply 24,000 acres, it would require a considerable area of land to exhaust the total quantity of water that would be available? There is more than sufficient land to exhaust the available supply of water, even with weiring.
3582. So, in your opinion, we need not trouble ourselves about the possibility or probability of there being insufficient land? No.
3583. The question is how to get sufficient water? Yes.
3584. Is there anything that you could mention to the Committee touching on the navigation question, as to whether the permanent opening of the river for the carriage of produce would have any effect in the way of inducing smaller settlement when the present leases run out;—would the certainty of communication and the cheapening of commodities have the effect of inducing a larger number of men to take up holdings and promote closer settlement? I think it would.
3585. At present, I suppose, it requires more capital than it would do if communication were certain and regular? Yes.

THURSDAY, 28 SEPTEMBER, 1899.

[The Committee met at Louth at 12 o'clock noon.]

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Thomas Andrew Mathews, grazier, near Louth, sworn, and examined:—

- T. A. 3586. *Chairman.*] Where do you reside? At Retreat, 3 miles down the river from Louth.
- Mathews. 3587. How long have you been a resident of the district? Forty years on the 18th of next January.
3588. During that period you have been engaged in pastoral pursuits chiefly? Yes.
- 28 Sept., 1899. 3589. At present you have various interests in the district? Yes. 3590.

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3590. This proposal is to erect seventeen locks and weirs between Bourke and Menindie, in addition to the one already erected at Bourke, with the view of improving the navigation of the river between those two places, and also assisting the irrigation of suitable land within a reasonable distance of the river banks;—would you, as a very old resident of the district, give us your views on that proposal—as to whether it will be beneficial or otherwise? It will be beneficial in every way. It will enhance the value of this country very considerably. It will also do a very great deal of good to Sydney. There are many things that are absolutely worthless now which will be sent, and be of great benefit to the residents of the Darling, and also to the men who are engaged in the sale of these goods. There is a lot of wool, there are also bones, and there are rags for the paper mills, and many other things I could enumerate. But I do not think it would be any benefit to New South Wales to carry out this work below Menindie.

3591. Dealing with the river as far as Menindie, do you think that that would induce trade to go up the river and act as a feeder to the railway at Bourke? Certainly.

3592. As an old resident, can you tell us anything about the inconvenience arising from the present state of affairs and the uncertainty of the river? The state of affairs, until quite recently, has been deplorable. The teamsters had hardly anything to do. The traffic barely kept the horse teams alive, and it was terrible to have to pay £3 and sometimes £3 10s. per ton for carriage by road from Bourke. When navigation used to take place, when the river was up, people were getting their wool and other goods in some places carried for perhaps 15s. or 16s. a ton, or certainly for £1 a ton. The steamers then, as a rule, served all the way down, and they would do so still if the river were navigable; but in the present state of things that cannot be done.

3593. What did you pay by river, with a decent river, as against the £3 by road? Thirty-five shillings.

3594. I suppose the river has always been looked upon as the natural outlet for the produce of this district, and also for bringing goods to it? Yes. It costs so much to feed horses, that although the teamsters charged £3 or £3 10s. a ton, some of them, I know, had to knock off carrying altogether.

3595. So that in a dry season, when they resort to team carriage, feed is so scarce that there is nothing in it for the teamsters? Yes. If you want a bag of chaff, even at Louth, you have to pay 7s. and sometimes 7s. 6d. for it; and below Louth it is hardly to be got, unless a man can grow it himself.

3596. Looking at the river as the rival of the railway, do you think that the railway could compete against the river? The river would be a great feeder to the railway.

3597. You mean if the locking stops at Menindie? Yes.

3598. But if the locking and weiring were carried further down than Menindie, then the river would be used entirely? Yes,—as a rule, to go to either Adelaide or Melbourne. In former days hardly any goods were obtained from Sydney, but nearly all came from either Adelaide or Melbourne by river.

3599. You having been a resident of the district for such a long time, how do you regard it;—has it been progressive or otherwise? With good seasons, it has been progressive. During the last season it has gone back. I consider that, with very few exceptions, half the stock has died.

3600. That is owing to the nearly five years' continuous drought? Yes. But with ordinary good seasons people could live comfortably. But as to making a fortune, my experience as regards squatting—the pursuit I have always been occupied in—is, that the man who takes up the country and improves it never does any good for himself; it is the man who sells who does.

3601. As far as your observation has gone, it has been that people who have come here have not done well? They have not done well.

3602. Do you attribute that to irregular seasons? Yes. In a good season you have, perhaps, not half enough stock, and in a bad season you have considerably too much stock.

3603. That being the state of affairs, this proposal has, for one of its objects, the improvement of the state of things by giving you a regular river to get to a railway, and by combining with that the idea of irrigating a certain quantity of land for the purpose of growing crops to help to keep the stock alive in bad seasons;—what do you think of that part of the proposal? That would be a great boon to the people here.

3604. But would irrigation be engaged in, do you think? There are very few men—hardly anybody who has not irrigated—who would not, naturally, for their own benefit, be absolutely compelled to irrigate.

3605. You have the water at your door, and soil which, with water, will apparently grow anything; why, then, all these years have not the people here assisted nature? Some of them have, and some of them did not stay long enough. There were other small reasons; but the facilities people have now for irrigation they did not have in years gone by. They had not these small engines or windmills, but now they are beginning to irrigate, as a rule. Some two years ago I had a trip down the river, and I never saw people with such means for irrigation as I then saw.

3606. You notice that people are now becoming alive to the necessity of having a little cultivation ground? Yes.

3607. We have been told that the varying height of the river banks is a great detriment to consistent irrigation, and that if we could give them a pretty regular height to deal with in the way of pumping, irrigation would be largely gone on with;—do you think it would? I am sure it would.

3608. Would you do that on your own place? We are doing it now.

3609. How long have you been pumping and irrigating? About three years. At first it was a great failure, but now the parties are doing very well at it. The shifting of the pump is a great drawback. You are continually doing that, and you cannot do it without interfering with the piping, and, as a rule, you have no facilities for making the piping suit again. You can always manage when the river is up 10 feet or 15 feet, for you can have banks where you can have stages, where you can set your pump and work from it.

3610. What result have you got from irrigation? Very good, so long as it lasted.

3611. What do you mean by "so long as it lasted"? The man I sub-let to belonged to the anti-labour association. As a rule, when a man who is not deeply interested in the land puts a crop in he wants to begin to sell it almost the day after he has put it in. The locking of the river will do away with all excuses. There is hardly a distance of 3 or 4 or 5 miles where there will not be irrigation pumps.

3612. Do you know the river pretty well between Bourke and Menindie? Yes, I may say, to Wentworth.

3613. What is your opinion as to the number of sites and the quantity of land available on or near the river banks, with soil of a suitable character, and, secondly, with a suitable contour or formation, which could be treated with irrigation? They are numerous, and the land is good.

3614. Do you know Gundabooka station? Yes.

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3615. Do you know many places such as that where there is a nice piece of land that could be treated with irrigation? There is a piece this side of that—Mr. Mackey's—which is considerably better than Mr. Langlands'.

3616. Therefore, with a locked river, and the water dammed back, and with a fair tenure to the squatter or the smaller holder, you think that there is ample land to use the water for irrigation purposes, and that it would be largely used to assist them in their operations? Ample land, quite sufficient with fixity of tenure—if the men knew what they were going to do; but the land-laws of the Colony have been so tinkered with that a man hardly knows what may take place the next day.

3617. Of course, before a man would go in for an irrigation pumping plant, and grade his land and prepare it for irrigation, he would want either a freehold or a long tenure, say, at least of twenty-five years, to encourage him to do anything in the way of irrigation? Yes.

3618. The idea is that in growing these crops, as an assistant to squatting operations, 100 acres or 200 acres should be dealt with, and that if the produce were not consumed in one year, it should be stored up and be good when a dry season does come;—have you considered, from a financial point of view, whether that could be profitably done, or whether it would be too costly? The whole thing must be considered as a financial pursuit, together with accommodation.

3619. Well, what do you think of it? I think it would be very good. It would be just the thing for hay crops. Mr. Langlands does not compare in any way with Mr. Mackey's, which is a splendid place. Redbank, too, where the hotel is, is another very good place.

3620. We have been told that during the continuous droughts, squatters have had to import fodder to keep their stock alive? Yes; they must do that.

3621. Could they grow crops by irrigation at prices as reasonable as those they have to pay for fodder? Considerably more reasonable, and they would have it when they required it.

3622. And they would have no freight to pay? No freight to pay.

3623. And there would be no necessity to wait for teams or steamers to get it to their doors? No; it would be there.

3624. It appears that, in this district, scrub-cutting, for the purpose of maintaining stock, is resorted to very much;—is that a kind of last resource? It is the very last resource; and now that itself is about done altogether.

3625. How is that? When once the mulga is cut it is done. It is like no other scrub; it dies. Other scrub comes on again, but mulga will not come on again, except, perhaps, in a very few places.

3626. We have had varying opinions as to the merits of the red soil, and of the grey or dark soil, for crop purposes;—which do you think the better of the two? I consider the red soil is the best soil. But there is a mixture of the white and the black, and that is very good; but still it is sandy, and where the soil is all white it is cracky.

3627. But that cracky kind of soil, I presume, prevails only close to the river banks? No. It is a good way out, too, where the ground is white.

3628. That is not good? No.

3629. The construction of these locks and weirs is to cost, in round numbers, about £500,000;—do you see any prospect of the State getting back, directly or indirectly, any return for that large expenditure? I see every prospect of the State getting it back.

3630. In what way? It will enhance the value of the country and give employment; and you cannot give employment without benefitting the State—that is, if it is judiciously done.

3631. But do you not think that it would be fair that there should be a direct charge for such a large expenditure, in the way of small tolls on the steamers, and a small charge for the water used by people in irrigating? I would say, as a rule, that, if the charge were a small one, I think it would be fair to charge something.

3632. But you look on the indirect benefit to the State? Yes. I think that the benefit would a great deal more than recompense for the interest on the capital expended.

3633. *Mr. Shepherd.*] You contend that, with improved pumping machinery and that kind of thing, people would be encouraged to irrigate? Yes.

3634. How much land is there irrigated now? Very little.

3635. How much do you suppose? At Dunlop I think they have about 40 acres.

3636. They have had these improved implements for a number of years? Yes; and they have crops out back that help them.

3637. You think that with improved machinery people will be encouraged to irrigate? Certainly.

3638. Well, those at Dunlop, having enjoyed the use of this improved machinery for a number of years, and having only 40 acres irrigated now, it does not look as though they took much advantage of it? I was talking only of one place, but there are other places.

3639. How many months in the year do you suppose you run short of water in the river here? I cannot say how many months. It all depends upon the rain. For instance, we were eighteen months and had no steamers on the river.

3640. The river ceases running altogether occasionally, does it not? It has done so. I have known it to cease running altogether only twice or thrice.

3641. In how many years? In forty years.

3642. Well, I suppose that so long as the river is running, you can get sufficient water for irrigation? Yes; but there is this to be considered: Where you could get sufficient water you might not have facilities on the bank for pumping.

3643. The land you would irrigate would not be land liable to flood? Exactly.

3644. It does not matter what the level may be;—if you have an ample supply you can pump it on to the land? Yes; if you have the means.

3645. *Mr. Watson.*] Your contention seems to be that if the water were kept to a level a little above what it is at the present time a great number of people would go in for irrigation? Yes.

3646. You say that the height of the water is too variable at present? Yes.

3647. And sometimes it goes down until there is no water at all at some points? Yes, except some deep holes, from which you could not irrigate.

3648. At some points you would have no water when the river is at its lowest? Yes.

3649. And there would be no means of irrigating unless some such proposal as that now before us for damming the river were carried out? No.



3650. Do you know the river between Bourke and Louth? I do, well.
3651. Looking at the proposal from the point of view of irrigation, do you think there is sufficient land between Bourke and Louth to use in irrigation all the water that might possibly be conserved there? Yes, I do.
3652. You are aware that, for some miles below Bourke, so far as the outlook from the river is concerned, there does not appear to be much land suitable for irrigation? Certain places. I have enumerated two places—Gundabooka and Mackey's—and there is also suitable land this side of Mackeys, and at other places.
3653. But, take it more on the Bourke side of Gundabooka? It is not so good.
3654. Would you have there to go a further distance back to get suitable land? You would have to go further than your machinery would carry, I think. It is all white ground after you pass Yanda.
3655. On the Bourke side of Yanda, the soil is unsuitable for irrigation? There are some places, but not sufficient soil to induce people to irrigate at those spots.
3656. How far back from the river would you have to go to get land suitable for irrigation? In some cases 7 or 8 miles, in others 3 miles, and, in some, 2 miles; but that would not pay.
3657. You say that in some cases, you could get land some 2 or 3 miles from the river suitable for irrigation? Yes.
3658. Is that a considerable area in one block? No; in various blocks.
3659. Is there not one block of land of considerable area so suitable? I do not believe there is. My idea of the land from Yanda upwards is such that I do not believe that there is any land worth speaking about, up to Bourke, which is suitable for irrigation; I mean, in good seasons.
3660. Are there 1,000 acres in one block? There are not. There are not 500 or 300 within 2 or 3 miles of the river.
3661. If you go back 5 miles, can you get plenty of irrigable land? Yes. There is good land out from Jandra. There is a spot at Jandra, but it is small.
3662. So, if irrigation were attempted between Bourke and Yanda, it would require to be some distance back from the river? It would.
3663. Where do the people of Louth get their supplies from now? From Sydney.
3664. By what? A little, lately, by the steamers, but principally by overland carriage from Bourke.
3665. And the steamers come from where? Also from Bourke.
3666. So that latterly you have not been getting any goods by steamers coming up the river? No. I have not got any from there for some years.
3667. I mean the people of Louth generally? Very little, if any.
3668. Why is that? The simple reason is that their dealings are with the Sydney market and the Sydney people. Formerly it was not so. The railway to Bourke has caused, as a rule, all the necessary requirements to come from Sydney. Formerly they came from Victoria—Echuca as a rule—and from Adelaide. That was done away with years ago.
3669. But with a good river, would you not get goods more cheaply from Adelaide by river than from Sydney *via* Bourke? There is this to be considered—you might not be dealing with any merchant in Adelaide who would be the means of sending you the goods, and it would be only now and then that the river would be able to supply you. As it is, we are dealing with the people in Sydney. They are our customers. We supply them and they supply us, owing to the railway coming to Bourke. Many years ago the teams came from Kelso, 2 miles the other side of Bathurst, all the way down here to Toorale, and charged £28 a ton for cartage.
3670. But, if the locks and weirs were completed from Bourke to Menindie, you think that the Bourke railway would serve the people right down to Louth, and beyond to Menindie? Yes, certainly.
3671. And if the Federal Government, which will have control of this river, amongst other things, for navigation purposes, were to complete the locking sufficiently far to ensure navigation right up from the coast to here, do you think that you would continue to trade with Sydney, or would the people here trade with Adelaide or with Melbourne? I am not a prophet, and cannot say what the people will do in twenty years.
3672. I am asking you what would suit their interests best? That is where the shoe pinches. We have our trade now concentrated in Sydney. The people there serve us, and we find it to our interest to deal there, and not with Adelaide or Victoria, and I believe we shall always continue that way.
3673. You think the probabilities are in favour of the people here continuing their trading connection with Sydney? Yes.

Simon Oakes Laycock, storekeeper, Louth, sworn, and examined:—

3674. *Mr. Dick.*] How long have you been engaged in business here? Eight years.
3675. In the district longer? Yes, the last fifteen years, on and off.
3676. This proposal is mainly for the construction of a great highway from Bourke to Menindie, practically for traffic, with the subsidiary object of irrigation;—would you, with your knowledge of the course of traffic here for some years past, give us your opinion as to what would be the effect upon traffic of the locking of the Darling for that distance? I think it would be of great benefit to the whole of the district between Bourke and Menindie, in fact to the whole of the river, not only to Menindie, but right through to the Murray. As regards getting goods from Sydney, I do not think that the carrying out of this proposal would affect the Sydney people at all, for about four years ago we had some goods come this way from Sydney through Adelaide and Melbourne, and we got them for 35s. a ton, Sydney to Louth, right round; but they were stopped for about three months just below Wilcannia, and we had to wait for them.
3677. How did the freight by rail from Sydney to Bourke, and by team from Bourke to Louth, compare with that 35s. a ton *via* Adelaide? At that time the railway freight from Sydney to Bourke was £8 a ton for miscellaneous goods, and the carriage by team was about £3 a ton. We paid as high as £5 at that time for loading from Bourke to Louth.
3678. In that case you say the great disadvantage arose from the fact that the goods could not be got up the river? Yes.
3679. But with the river locked from Bourke to Menindie that difficulty would disappear? Yes; we should be able to get them at any time.
3680. Do you think you would still get goods from Sydney round by Melbourne or Adelaide? Yes.
3681. Do you not think it would pay better to get them from Melbourne or Adelaide? No.

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- S. O. Laycock. 3682. You think the course of trade in this district will be from Sydney? Yes.
- 28 Sept., 1899. 3683. What effect would that have on the railway from Sydney to Bourke? It would make a little difference to the railway; but I think the river would make up for it.
3684. You think that, although the outward traffic from Sydney to Bourke would be reduced, the locked river would act as a feeder to the railway at its terminus at Bourke? Yes.
3685. *Mr. Watson.*] You stated, in reply to Mr. Dick, that, in your opinion, the construction of the locks and weirs from Bourke to Menindie would act as a feeder to the Bourke railway, and yet might have the effect of reducing the outward traffic from Sydney on that line? Not exactly that. I did not mean to say that it would act as a feeder to the Bourke railway, but that it would not take the business from Sydney. The Sydney people would still derive benefit from the locking of the river. We would not send to Adelaide for goods. We could get them from Sydney more cheaply than we can now.
3686. You found that when the river was up it paid you to get goods round all the way from Sydney, rather than take them a shorter distance from Adelaide? Yes.
3687. You have to chance the river being up all through, to get goods at the rate of 35s. direct from Sydney? Yes.
3688. How do you account for the fact that you are able to buy more cheaply in Sydney than in Adelaide or in Melbourne? Most of the people in the back country will deal with Sydney—I mean New South Wales people will.
3689. Is that merely from sentiment, or from the idea of profit? From the idea of profit? They will deal with the Sydney people; and not only that, but most of the Sydney warehousemen have also warehouses both in Adelaide and in Melbourne.
3690. Well, take a warehouse with branches in Sydney, Adelaide, and Melbourne—if you were to send an order from here now for a certain quantity of goods, from which place would they send those goods? From Sydney, certainly.
3691. How do you account for that? The Adelaide people do not know the back country people; but if I were to send an order to Sydney the goods would be put on the boat in Sydney and come round to the forwarding agents in Adelaide, and then be trans-shipped there to the river steamers.
3692. Would it not be a shorter distance to bring them from Adelaide under like circumstances? It would, but I do not think the carriage would make sufficient difference. If we could get the goods carried for 35s. a ton we should not trouble about Adelaide.
3693. It has been contended that, owing to Sydney being the terminus for the great shipping lines, and a sort of depôt for the island trade, it will always be possible to get goods from the outside markets more cheaply there than at any other point along the coast;—do you think there is anything in that? I do not think so, for I believe that at the present time in Adelaide you can buy goods a trifle more cheaply than you can buy them in Sydney.
3694. And yet you would prefer to buy in Sydney rather than in Adelaide now, notwithstanding the difference in price? Yes.
3695. Do you think there are many more people built like that? Yes; and I believe that if we get Federation it will cause them to be more so.
3696. What do you mean? Because if we have Federation I should say that we should have a small toll from the steamers and New South Wales would receive the same benefit as the other colonies.
3697. New South Wales being the owner of the lands adjoining the Darling would receive a benefit if greater settlement accrued from the locking of the river? Yes, I believe that would bring people here to settle on the land.
3698. You are of opinion, then, that the mere direction of trade is not so important as getting the people settled profitably on the soil? Yes. If the people settle on the soil the trade must be there.
3699. And the direct rent from the land, or the purchase money for the land, would accrue to the New South Wales people? Yes; I believe that New South Wales would receive a larger benefit from the locking of the Darling than any of the other colonies would. About five or six months ago the river was dry here, and the Chinamen had to stop drawing water from the river for irrigation purposes.
3700. You have known of instances where it has been impossible to get water from the river at Louth for irrigation purposes? Yes, I have. There was not a depth of 3 inches of water in the bed of the river, and the water was not more than 1 foot wide.
3701. Of course, there would be no possibility of irrigating any quantity of land from that? Not the slightest.
3702. Your contention, then, is that unless the river were weired, either with or without locks, there would not be sufficient water conserved to allow of irrigation in any quantity? Yes.
3703. What irrigation is now going on along the banks of the river is, of course, precarious, to the extent that the water varies in height, or disappears? Yes; and where the best lands for irrigation purposes are is generally the highest bank, and the pump has to be moved up and down. Sometimes the river falls here 20 feet in a week.
3704. So that, practically, it means that at the present time there are only a few feasible spots, where deep pools exist, where irrigation has any possibility of permanency? Yes. In fact they could not irrigate there to any great extent.
3705. Notwithstanding that element of insecurity, a considerable number of people are irrigating small patches along the banks of the river? Yes, just a few acres, that is all.
3706. Do you think that, generally speaking, the prospects for irrigation in this district are good? Yes.
3707. Do you think there would be an outlet for produce in the way of dried fruits, fodder, fresh fruit, and so on? Yes.
3708. *Chairman.*] How many people are there in Louth at the present time? About 100.
3709. Has the place been progressive, or otherwise, during the time you have known it? During the last few years it has not progressed much.
3710. That shows there is something wanting? During the last twelve months it has progressed to some extent, because of the employment of 150 men scrub-cutting on Dunlop, but that is the only progression we have had here. That really is no progression. The sheep are dying.
3711. But in undertaking a large work of this kind you want to look ahead a little, and see what you are going to get out of it;—what do you think the Government will receive, by way of direct or indirect benefit, for this large expenditure? I do not think they would receive much at the present time, but I think this is the time for the work to be done.

3712. In years to come, what will be the benefit? The people will settle on the land, and there will be more produce required. The water-carriage to Bourke would make it cheaper, and they could always get a market for their produce. They could get a market for their chaff now. S. O. Laycock.  
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3713. Do you mean small holders would settle on the land? Irrigation farmers. Anything that would enhance the value of the land would be good for the whole of the Colony, as well as for the district, inasmuch as the Crown owns nearly all the land here. There is very little freehold.
3714. Do you really think that the district is retarded by not having any reliable means of communication? I believe it is.
3715. And I suppose that, owing to the tortuous character of the river, railway communication, to suit all the holders who must have their centre of operations on the river banks, is impracticable? Yes.

George Leggatt, grazier, El Dorado, near Louth, sworn, and examined:—

3716. *Chairman.*] How many miles do you reside from Louth? About 4 miles. G. Leggatt.  
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3717. What is the size of your holding? About 84,000 acres.
3718. *Mr. Shepherd.*] How many sheep have you? At the present time, about 16,300.
3719. How many had you (say) four years ago? That was a bad time of drought. I cannot say how many; but I had not so many. That was the 1885 drought, when there were heavy losses. We had, perhaps, 13,000.
3720. How many had you twelve months ago? Twenty-three thousand five hundred.
3721. You have lost about 7,000? No; I have sold some. We have lost about 4,600, I think.
3722. What kind of pasture have you, chiefly? Only the natural grasses.
3723. What kind of grasses? Mitchell grass, blue grass—in good seasons this is,—umbrella grass, star grass, barley grass, mulga grass, silver grass, and No. 9.
3724. Of all those, which do you consider the best for sheep? The blue and Mitchell grasses I consider the best.
3725. Have you taken any steps to preserve those grasses? No.
3726. Is your run paddocked? Yes; divided into twelve sheep paddocks.
3727. Do you not think it would be of advantage to “paddock” some of your best grasses with the view of conserving them by enabling them to seed? I do not think so; we have not the country to spare. We have to keep a certain number of stock on in order to keep our head above water at all.
3728. Have you never had any experience of such “paddocking”? Not in saving paddocks like that, in order to let the grass go to seed, though we save them for lambing purposes.
3729. Are you aware that by “spelling” portions of a run you largely increase its capacity for carrying stock? I believe so. It is no doubt of great advantage to allow the grass to go to seed.
3730. I suppose you attribute the small loss, comparatively speaking, of your sheep to the fact that you have your run not overstocked? Yes, that is it, and the expense we went to in employing labour in keeping the sheep alive with scrub.
3731. What is the full capacity of your run in favourable seasons? Seventeen thousand or 18,000 sheep.
3732. So you have it fairly well stocked now? Considering the season, it is very well stocked.
3733. Have you any other stock besides sheep? Only a few dairy cattle and horses.
3734. Just for home use? Yes, that is all.
3735. Have you tried any cultivation? Not irrigation. We have put in a cultivation paddock of 10 acres this season.
3736. With wheat? Yes.
3737. Was the result satisfactory? No.
3738. Owing to the drought, I suppose? Yes.
3739. Have you any garden cultivation? Yes. I have some young fruit-trees coming on.
3740. Not in bearing yet? Only about half a dozen.
3741. Have you been growing vegetables for any length of time? Yes, for years.
3742. Is the soil dark or red? Dark.
3743. Do you find that satisfactory? It is very good at our place—very rich soil.
3744. Have you any means of watering it? Yes, pumping—irrigating machinery.
3745. Have you studied the likely effects of locking the river? I have never made much study of it.
3746. You must have thought over it, surely? Yes. I have seen so much about it of late years in the newspapers.
3747. Do you think it would be of advantage to the people on the river to have the river locked? I think there is no doubt about its being of advantage for irrigation purposes.
3748. And for the purpose of carrying wool and goods? Yes, it will be of advantage.
3749. Do you think that, if the river were always navigable from Bourke to Menindie, the Bourke railway would be used largely for carrying goods and wool? I do not know. So far as I am concerned myself, I should say “Yes,” because all our wool is sold in Sydney, which is the best wool market in the Colonies; and naturally we should get our supplies from Sydney by rail to Bourke, and send our wool that way too.
3750. Would it not be cheaper to send to Adelaide or to Melbourne? Yes, much cheaper. One year a party offered to send the wool from El Dorado to London, and land it there cheaper than we could get it from Bourke to Sydney by rail.
3751. Do you not think that people would be likely to use the cheapest route? Yes; I am inclined to think that the large holders would, but the majority of the homestead lessees in this district I do not think would. Large places, like Dunlop and Toorale, would; though, when the river has been in flood, they have sent their wool to Sydney by rail, when they could have sent it right through by river to Adelaide.
3752. It is also proposed to construct a railway from Cobar to Wilcannia;—do you think that that railway would be largely used for sending wool to Sydney? Not if the river were locked.
3753. Do you think that the wool would be sent to Bourke rather than to Wilcannia? Yes. The carriage by water would be cheaper. I do not think that that railway would get a bale of wool.

- G. Leggatt. 3754. Do you think that it would be a feeder to the river by bringing wool to it? Yes; from perhaps halfway between Wilcannia and Cobar that railway might fetch it into Wilcannia.
- 28 Sept., 1899. 3755. So you really think the locking of the river would be of advantage to the Bourke railway? Yes.
3756. It has been the opinion of many that the locking of the Darling would deprive New South Wales of a great deal of the produce of the river—that the wool would be sent to Adelaide and Melbourne;—you do not participate in that opinion? No, I do not. In the flood times, Toorale and Dunlop, and nearly all the stations round here, send their wool *via* Bourke to Sydney. I do not know why they do it, but they do it. It has been done for years by Dunlop. They used to send their wool down the river, but they have not done so of late years.
3757. *Chairman.*] Your losses do not seem to have been very heavy compared with those of other holders;—how have you kept your stock alive during these four or five bad seasons? Understocking the property is one thing, and we have been fortunate in getting thunderstorms to make grass, and the country is well improved. There are nearly 65,000 cubic yards of excavation, and that is a big thing, not counting the river frontage, and there are small creeks. We started scrub-cutting when the sheep were strong, before the grass went off, and put on one man to 1,400 sheep, instead of one man to 2,500, as most of the people do. The great loss in most places is through carelessness—letting the sheep get too low, and then not putting enough men on to feed them with the scrub.
3758. Is that scrub done for, or will it grow again? The bulk of it will not come again. The mulga will not grow again, but the beefwood and the leopardwood will, and the whitewood will grow from the stump.
3759. I suppose you run your place on the lines which you think are most advantageous from a business point of view;—we have heard a great deal of the desirability of irrigating patches of land (100 or 200 acres), and growing crops to maintain stock in bad seasons;—how do you regard that proposal? I think that if the river were locked it would be carried out largely.
3760. Has the river not been locked been an obstacle to your doing it? Yes; we cannot get the power.
3761. Too high a lift? Yes.
3762. With a reliable depth of water, and not too great a height to pump, would you go in for irrigating cultivation paddocks? Undoubtedly.
3763. Would that be more advantageous than having to cut scrub for your sheep? Yes, very much.
3764. Would the expense of doing it, do you think, be too great a handicap? No; it would be much cheaper than scrub-cutting.
3765. And the mulga—which is the bulk of the scrub—once cut is done for? Yes.
3766. So, from that point of view, you think the locking of the river would be of advantage? Yes.
3767. *Mr. Watson.*] At the present time you have about one sheep to 5 acres on your holding? Yes.
3768. I suppose you would call this the worst period of the drought? No; the drought is broken now. We have feed now.
3769. Still, the number of your sheep has not been increased since the worst period of the drought? No.
3770. And what were you carrying prior to that, in a fair season? From 18,000 to 20,000; but, with lambs, in a good season we have had as many as 23,000.
3771. That would bring you up to nearly one sheep to 4 acres? Yes; but when we have an increase we make room for them by selling sheep after the shearing, so as not to overstock.
3772. That compares favourably with any other property we have seen on the river? Because it is well improved.
3773. Is your country any better than that surrounding, or further up, or down the river? No; I cannot say that it is.
3774. Do you think that, on the average, it is much better than that of the surrounding holders? No; not on that side of the river. In fact, the adjoining country, Dunlop, is as good as the best of our country.
3775. Do you think that, with locking and weiring the river, and the consequent cheapening of supplies which ought to accrue from easy and regular communication, it would be possible, on the expiration of the present leases, to get a larger number of settlers on smaller holdings? Yes, I think so.
3776. And do you think that that would result in a larger number of sheep, in the aggregate, being carried on the same quantity of land? I do not know about that.
3777. You have a small holding compared with others around? Yes.
3778. It seems that you are able to carry more sheep per acre than some of the holdings we have seen;—do you think it likely that a man with a small holding, giving greater attention to sheep, would carry more sheep to a given area than a large holding? Yes, I think it is likely.
3779. What number of sheep do you think a man would require to enable him to make a living in this district, assuming that he had a holding sufficiently large to carry them? About 10,000.
3780. He would want that number to make anything like a decent living? Yes; if a man with a family, he would want a run capable of carrying 10,000 sheep.

Leonard Sydney Pearson, chemist and hotel-keeper, Louth, sworn, and examined:—

L. S. Pearson. 3781. *Mr. Dick.*] How many years have you been in this district? I have been twenty-one years in Louth.

28 Sept., 1899. 3782. Will you make a statement as to what you think the probable effect of locking the river from Bourke to Menindie would be on the general course of traffic? My opinion is that if the river be locked from Bourke to Menindie it will be of very great benefit to the district. It will be the means of our getting stores to this place much more cheaply than at the present time, by train from Sydney, and by river from Bourke. When I was a storekeeper some years ago I was dealing with Adelaide and Melbourne, and it cost me £5 per ton carriage to land goods from Adelaide at Louth. The steamer got stuck up down at Henley, and again at Wilcannia. The steamer being stuck up, I had to buy again, and the carriage I paid from Sydney to Louth was £28 7s. 6d. per ton, by train to Dubbo and thence by team to Louth. It was £6 7. 6d. to Dubbo and £22 from Dubbo.

3783. Have you been getting stores from Sydney since the railway was extended to Bourke? Since the railway has been extended to Bourke, what I get in the hotel-keeping line is very trifling. I had some beer from Sydney, but I do not know what the carriage was. It was landed here free.

3784.

3784. Was that by river, or by rail? It came by water all the way from Sydney, *via* Adelaide. L. S. Pearson.
3785. With a locked river, permanently navigable, should you get your stores from Adelaide? Certainly. 28 Sept., 1899.
3786. Do you think that that would hold pretty generally with the storekeepers and pastoralists, and others, along the course of the river? I think it would, after they got to know which was the best place for them to deal with. Most of them have been dealing with Sydney, and nowhere else; but when they try Melbourne, Sydney, and Adelaide together, they will find that Adelaide is the cheapest market to buy in. They will save in carriage, and also in market price as well.
3787. Even if the markets were equal, you think that the saving in carriage would be sufficiently large to induce them to trade with Adelaide instead of with Sydney? Certainly.
3788. With respect to the principal produce—wool, skins, and so on—of the properties south of Bourke to Menindie, in which direction do you think it would be sent, if the river were made permanently navigable? It would be sent down the river. Of course, with locks and weirs, there would be a toll. But, at the present time, whenever the river is up, it is cheaper to send goods down direct. I have had a good deal of experience in forwarding wool from the stations.
3789. You think the tendency will be to send the produce down the river rather than by rail? Yes; it will be much cheaper. The freight from here to Adelaide is much lower than it was formerly. Gidgea station belongs to Dalgety & Co., and I used to forward their wool to Adelaide. Pulpoola and Wittagoona stations, belonging to the Bank of New South Wales, send their wool *via* Bourke. The head office of the bank being in Sydney, I suppose they have their wool-scouring plants in Sydney, to which they send the wool.
3790. Can you offer any opinion as to what would be the effect on the produce brought in from places north of Bourke, in this Colony, and those parts of Queensland which now send *via* Bourke to Sydney;—do you think that produce would go right down the river, if it were made permanently navigable, or would it still be sent to Sydney? I cannot say as regards places above Bourke.
3791. We have had a good deal of evidence to the effect that the Sydney wool market offers such material advantages to wool-producers, that, even if the freight on the railway were heavier than on the river, they would prefer to send their wool to Sydney;—do you think that, with a permanently navigable river, that advantage in favour of the Sydney market would be neutralised by the low charge for carriage down the river? I think that, after all, Adelaide would be the best place for them to forward their wool to, for transhipment to England.
3792. Have you noticed whether pastoralists in this district have taken advantage of the river for irrigation purposes at all? I think that Winbar was the first to take advantage of irrigation, and then Dunlop. Dunlop is going in very much for it now, increasing the area under irrigation every year. Winbar has been irrigating for a number of years.
3793. Can you say whether the uncertain level of the river, with the consequent necessity for changing the level of the pumps, has been a serious obstacle to general irrigation? It has been a great obstacle, for when the river is down so badly, as it very often is, people have to put on so much more force in order to get the water up that they cannot very well get the power to do it, unless they are men of money and can buy the necessary plant.
3794. Can you offer an opinion as to the financial aspect of irrigation as a means of insurance against drought—in other words, do you think it would pay pastoralists to place an area under fodder crops for the purpose of providing against seasons of drought? They could do it to a certain extent, but not to feed the whole of the stock on the land.
3795. Could they feed the better quality of their stock in that way? Yes.
3796. With respect to the localities where irrigation is possible, of course they must be near the river bank, and must offer facilities in the way of good soil, and also have a grade away from the river; do you know of many places along the river where such conditions prevail? Redbank is about the best part of the river that I know of, and there are also Gundabooka and Myrtle Vale. I do not know much about the other side of the river.
3797. Do you think that the locking of the river, and the resulting advantages, would encourage a system of smaller holdings? I think that if the river be locked it will be the means of causing settlers to come on the river, and of increasing the settlement. With droughts, there is no water to make any crops grow, but if the river were locked they could get water from the river, when otherwise it would be low.
3798. What would be the smallest holding, in land of the character we find about here, which would be sufficient to enable a man—I do not mean a man with a lot of capital—to make a decent living? If he had suitable ground, and had a suitable place for irrigation, I think 640 acres should be sufficient.
3799. But a man with 640 acres would not be able to keep any sheep? No; simply an irrigation farm.
3800. How would he be able to make a living from 640 acres, with irrigation? By growing fodder crops, vegetables, and fruit. He could grow any kind of fruit.
3801. Apart from fruit, what market would he find for other crops, such as fodder crops? We have to get all our horse-feed from Bourke and Sydney; also potatoes and other things which could be grown here if there were irrigation plants.
3802. It would not require many 640-acre blocks to supply this district with potatoes? They might find an outlet in that way.
3803. Do you think that a number of men with 640 acres each would find sufficient encouragement, year in and year out, to grow fodder crops for the adjoining squatters? I do not know that they could now, for the squatters are irrigating for themselves.
3804. *Chairman.*] The district generally seems to have gone back lately; how do you account for that? I do not know that it has gone back much outside the town. I do not see much difference in it. There are a great many more people about—homestead lessees, and so on—who were not here before; and if we had good seasons they would be all right.
3805. Do you think that a man could get a living from farming, independently of sheep-breeding? A few men could.
3806. I suppose you regard the district generally as more a grazing district than a farming one? Yes.
3807. Do you know which is the better soil, the red or the black? The grass grows quicker on the red, and also dries the quicker; but when you get the rains the grass on the black soil lasts a considerable time. Where the irrigation farms are is very nearly all red soil.

- L. S. Pearson. 3808. Is some reliable means of communication, in your opinion, the one thing that is necessary to raise the district? That is what is wanted. The carriage is very high—£3 5s. by team from Bourke, and £8 or £9 by rail from Sydney to Bourke. The river freight is from 25s. upwards. With a good navigable river, it is 25s. from Bourke.
3809. Do you agree with former witnesses that, if the river be locked only as far as Menindie, that will bring trade to the Bourke railway? Certainly—that is, if the river is not navigable below Menindie.
3810. Of course, if it be made navigable farther on, it will take the trade down the river? Yes.
3811. *Mr. Shepherd.*] What is the average number of months during a year that the river is navigable? I cannot give an exact reply. The river might not run for two years, or we might have it for twelve months.
3812. The last four years have been exceptionally dry, but you surely have an average? I never took that notice of it.
3813. I suppose it is navigable some portion of every year? Not necessarily. Sometimes we have it just for the steamers to go down. They might start from Bourke and not get this far before the river sank, and at other times we might have a river up for nearly twelve months.
3814. You think it is only when the river would not be navigable below Menindie that Bourke would be likely to reap benefit from the locking of the river? Yes.
3815. So if the river were running nearly the whole twelve months there would be no traffic taken to Bourke for the railway? Not from below Buckambie, the freight to Buckambie being much less than to places below it.
3816. How often do the steamers pass here? When the river is navigable there are about six steamers plying continually.
3817. But how many times a week does a steamer pass? One goes up and down every fortnight. That is the "Florence Annie," a passenger and hawking vessel. I think there is about an average of six steamers continually going when the river is navigable.
3818. Do they make the passage from Menindie to Bourke once a fortnight each way? No; down to Wilcannia generally. There are also boats that go right through, and these come up from Adelaide with goods.
3819. Supposing that the river had the whole of that traffic, and Bourke had the benefit of it, do you think it would pay New South Wales to invest £500,000 in the locking of the river, and to spend something like £5,000 per year besides to maintain it? It might not pay New South Wales at the present time, but eventually it would from Menindie; but, if we had Federation, and the work were carried right through, it would perhaps not pay New South Wales.
3820. You think that New South Wales would benefit to that extent? It would reap a benefit if the river were navigable only to Menindie, but not if it were navigable all the way down below Menindie.
3821. I suppose that wool would be the principal freight? Yes.
3822. Is there a pretty general idea in favour of the locking of the river? Everyone I have spoken to about it, since we heard about your coming, seemed to be in favour of locking the river.
3823. And they are all of opinion that it would be a good investment for New South Wales? Yes, and of great benefit to the district. I have not heard one person speak against it.
3824. Is there anything else you can think of which would be of advantage to the Committee to know in connection with the locking of the Darling? Of course, if the river be locked there are stations out towards the Paroo, and on the other side towards Cobar, which would have the means of getting goods by river instead of by rail, and it would be much cheaper.

[The Committee met at Dunlop station, Darling River, at 7 p.m.]

James Wilson, part-owner of Dunlop station, sworn, and examined:—

- J. Wilson. 3825. *Mr. Dick.*] You are part owner of Dunlop? Yes.
3826. What is the size of the holding? About 700,000 acres.
- 28 Sept., 1899. 3827. Will you state in what way you think this western district would be affected by the locking of the Darling? I am of opinion that it would be a good thing for the whole community, and that the river Darling should be locked as a feeder of the railway system of New South Wales.
3828. You think, for instance, that wool grown on properties adjoining the Darling River would be sent up to Bourke, were the river permanently navigable? We have always sent our wool up to Bourke. If the river Darling be locked as a feeder to the railways, those people not using it for that purpose, and sending their wool the other way, should pay a toll for their produce going down the river, not for the sake of protection, or anything of that sort, but simply for services rendered by the Government. Of course, I cannot say what other people would do.
3829. Do you think that those people whose properties are financed from Melbourne will in all probability continue to send their wool down the river, even if the river be locked? Yes.
3830. Do you think that those people who now are in the habit of sending their wool by the Bourke railway to Sydney, in order to catch the Sydney market, would still, even if the river were locked, and the charges on the river were less than those on the railway, continue to send their wool to Sydney? I do not know what other people would do, but ever since the railway came to Bourke we have always used the railway for the carriage of our wool.
3831. You sell your wool in Sydney, or in London? In London. We do not sell any in Sydney. We would not get such good prices in Sydney, and we shall very likely continue to sell it in London, because our wool has made a market for itself, and it is known, and its brand. If you make a name for a brand, it is a most important thing.
3832. Supposing that the river were permanently locked as proposed under this scheme, and navigation were kept open throughout the whole of its course, would it not be a matter for you to consider whether carriage down the river would be cheaper than carriage to Sydney *via* Bourke, since you could get your wool

wool carried to London from Adelaide as well as you could from Sydney? The railway was made for the use of the squatters of the district and we thought we ought to support it, and even now when the river is navigable we send our wool to Sydney, because it is a large shipping port. Another set off against cheapness of carriage is this: When we send wool by rail we never insure it, but when we have sent wool down the river we have paid as much as £1 10s. per cent. for insurance, and if that were added to the carriage there would not be so much difference, and there is always danger in going down the river.

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3833. Was that a determining factor in your case? It was.

3834. In case the river were locked the insurance would be much lighter? There is no doubt there would be less risk if the river were kept properly snagged.

3835. Is there any advantage in shipping from Sydney as compared with shipping from Melbourne or Adelaide? Not that I know of. But our business is done in Sydney. When the railway came to Bourke we had business with Melbourne, but since the railway came to Bourke we have done that business with Sydney, and where you do one sort of business you generally do another sort. I think the railway charges for the carriage of wool are very reasonable. I think the Railway Commissioners carry on the railway business to the advantage of the whole community. There is one advantage in sending the wool *via* Bourke. It reaches the shipping port quickly, and is delivered in London, per Orient Company, in six weeks; whereas, I have known wool sent down the river to be six weeks on the way to the port of shipment. In sending it to Sydney we save interest on the money, and that has to be taken into consideration.

3836. If you had the same certainty of transit down the river, with cheaper carriage, it might pay you to ship from Melbourne rather than from Sydney, and therefore to send your wool down the river, if it were locked? That is a hypothetical question. It depends on a great many things.

3837. You have had some experience in irrigation? Yes, a little.

3838. Can you offer the Committee any opinion as to the general prospects of irrigation along the banks of the Darling, if it were locked as proposed under this scheme? No, excepting on a very small scale.

3839. Do you think that here and there it would pay to irrigate (say) patches of 200 acres? So far as my experience of irrigation goes, it is only the red soil where we can do anything with irrigation. There is a piece of a paddock here with black soil, and when the water is put on to it it is made into a state of pulp, and when that soil dries again it is like a brick-field—all in cracks. We find that it is only on the red patches of soil along the Darling where we can grow crops by irrigation. That is, at any rate, my experience.

3840. Do you think that on red soil, then, it would pay to irrigate patches of 200 acres? Yes, I think so, if you can find them on the banks of the Darling; but where can you find them.

3841. You think that the portion of the river known as Redbank is a fine site for an irrigation settlement? I think it is the best piece of land for irrigation on a large scale on the Darling that I know of. I think I should qualify that answer to a certain extent. I do not believe that irrigation will pay working expenses if water has to be pumped. We have an engine and a pump here supplying the home station, and the garden, and another little place. We cut extra channels to them, but we have no extra plant to keep up.

3842. Have you ever gone into a calculation as to what it would cost you per acre to irrigate? No.

3843. We have been assured by several witnesses that, merely as a protection against heavy loss during drought, it would pay each and all of the pastoralists along this river to irrigate patches of (say) 100 or 200, or even up to 400 acres, for forage crops to feed starving stock during times of drought;—would you subscribe to that statement? That is a matter in regard to which I have never made a calculation. I was going down to consult McCaughey & Co. on that very point. I work up the sheep to a fine condition. Some of the sheep that I will show you in the morning are worth £1 per head. I cannot afford to lose these sheep, as I could not buy them again at £5 per head; but none of us have decided yet what shall be done. We want to have a consultation as to the best mode of saving the stock after we have once got them.

3844. Do you think, then, that one of the methods by which such valuable stock may be preserved during times of drought may be by means of irrigated paddocks? I will tell you what I was going to propose to my partners: To select a paddock—a nice, level, sandy piece of country—and to put down a bore specially, and try the bore water. It could easily be done in this way: We should, first of all, have to select a place where the biggest flow of water is, because less than 500,000 gallons would not be of any good for the irrigation of sandy soil; and that is the only place where we could grow crops here. We should put down a bore and put a tank all round it—say, 4 feet—and have a flood-gate. The only way to irrigate now is—not by little dribbles—you must have a good flow of water, and let it run over the ground, and then take it off. If you let the water settle on the crops here for twenty-four hours in the summer it will kill them; you might as well pour boiling water on them. The water must flow over them, but not a drop be on them the next day when the sun rises. We have come to the conclusion that it will not pay to lose these sheep, and if you do not work your stock up how can you compete. But, as to giving an opinion as to what is the proper thing to do—that is a matter that will have to be settled by experience. I will tell you what Mr. McCaughey is doing for Riverina. He is working with irrigation, and he is going to grow sorghum for sheep. He has entered upon it on a large scale at North Yanko station. He says that sorghum is the cheapest thing he knows. You must prepare the ground in sections, and your check-drains must not be too wide apart. It is impossible to get ground so level that the water will not run into holes in spite of you, without grading; but if you have check-drains you can stop your water when you like, and start it again. Mr. McCaughey says that you can begin at the beginning of a drought, and four months after can feed every sheep with sorghum. That is his plan. Whether he will succeed or not, I do not know; but if he tries anything he generally succeeds.

3845. Is he going to use bore water, or river water? He has no bore water there.

3846. And will he use the river water by gravitation or by pumping? I think gravitation.

3847. You do not anticipate much in the way of irrigation by means of pumping the water from the river on to the land? I do not think that would pay, to grow crops for the general public. It might pay you, to save sheep. That is how you should look at the matter—not merely what it will cost you to do it, but what it will cost you if you do not do it.

3848. Along your river frontage, have you any patches of land which, in your opinion, could be fairly easily irrigated by means of pumping water from the river, in preference to going further inland and

J. Wilson. sinking a bore? No; I think that bore water would be cheaper than any other water for irrigation purposes. There is another thing against irrigating with water from the Darling. The land is very uneven, and it would cost £4 or £5 per acre to grade it. I will, to-morrow, show you a piece of country that I am grading now.

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3849. *Chairman.*] You do not think much of the irrigation part of this scheme? I do not think it will pay, to grow crops against the world. I think it will pay on a small scale in the way we do here. But supposing you were growing grain, how could any person begin and prepare land, and grade it, and put it into sections, and have to pump his water, and then grow crops in competition with people in places like the place where I was at Cowra, where there is a rainfall of 28 inches in the year.

3850. Admitting that it would not pay to grow grain crops, and such crops as, compared with others, are not of so high a value, do you think it would pay to grow more valuable crops, such as fruit? I have not had any experience of that, and I would not like to give any opinion on something I know nothing about. The whole of the Victorian water schemes for irrigation were a failure financially. I do not desire to say anything against irrigation; but I say, at once, that it should be gone into on a very small scale at the beginning, until people know what they are about.

3851. Well, considering this scheme merely as a scheme for navigation, do you think the Government would be justified in spending £500,000 in locking and weiring the Darling from Bourke to Menindie? That is a question for Members of Parliament to consider. I think it would be a good thing for the country; but, whether it will pay the whole community to sink so much money is another thing. We have begun here with acre-blocks of lucerne, and supposing that people have better land than we have they might go in for 100 acres, but we have not got much land here fit for lucerne.

3852. Have you tried to grow lucerne on the black soil? We have.

3853. Was it a failure? It was. But, even supposing it had not been a failure, the whole of the black soil here is under water about every third year, and that would kill the lucerne. In the 1890 flood, the river Darling was out 10 miles on each side, our garden was 2 feet under water, and our people had to live on what is called the "Knob."

3854. *Mr. Shepherd.*] You said that the insurance on wool going down the river was something considerable? It was when we were paying it, but I do not know what it is now. We have paid as high as £1 10s. per cent.

3855. Did you ever know the reason why such high insurance was charged? The loss of wool-vessels in going down the river.

3856. Are vessels not so likely to be sunk in going up the river? No. In going down the river the wool is carried in barges, the steamer going ahead of the barge with a long tow-rope. The men have not so much command over the barges as they have over the steamer, and in going round some nasty turns the barges sometimes swing round into the banks. That is how there are so many losses. All losses that I know of have occurred in going down the river, with the exception of one vessel which was coming up with a cargo of lime. However, I think that that loss was not owing to the current, but owing to something being the matter with the lime.

3857. You said that an attempt was being made to grow sorghum for sheep? Not here.

3858. Is the intention to grow it for a season, or to store it in the shape of ensilage? I do not know what the intention is, except that if a drought were to come on they could start, and in four months they would have good feed for the sheep.

3859. Do you not think that it would pay to cultivate a considerable block of sorghum or maize, or some of the best material, for ensilage, and lay up stores of ensilage for future use? We never went in for ensilage. We are satisfied if we grow a crop of hay only once in two years. During the last three years we have not got anything, and I do not know that we shall get anything this year, except a few pieces.

3860. Of course the last four years have been exceptional seasons? We should be satisfied if we were to grow a ton of hay to an acre every second or even every third year here, because the crops we grow are far better than what we buy. We have tried them only lately—that is, to keep the horses, not sheep.

3861. You have not grown sufficient hay to stay you over three or four years? No. In a good year you do not want hay for the horses.

3862. Is any considerable portion of the run paddocked, in order that you can "spell" portions of it occasionally? It is all fenced and has been divided into paddocks from the very beginning.

3863. Of course one great object in dividing the run into paddocks is that you may spell a portion of it occasionally and give it a seeding season in order that you may preserve the grasses? That is one thing in regard to which I differ from a great number of people. They say, "Why do you not keep grass for the bad seasons?" We find from experience here that grass which is eighteen months old will not keep anything alive. Since I joined Sir Samuel Wilson I have spent close on £100,000 in improving this run, as it is now.

3864. Do you not find that by giving it a seeding season, you preserve the grasses instead of having them exterminated? We find at Dunlop that if, instead of eating the grass when it is in its first state, and turning it into wool, you let it stand eighteen months, it will not keep anything alive, because it gets rotten. Our policy has been to eat the grass when we could get it, and turn it into wool. It is a mistake to think that adequate stocking prevents grass from seeding. In good seasons the grasses here seed freely, in spite of any number of sheep that we have ever carried, and, when shed, the seed is harrowed in by the action of the sheep's feet, with a tendency to thicken the sward; and the rest depends on the rainfall.

3865. Of course, it is in bad seasons when you would reap the benefit of conserving your grasses? I am giving evidence about Dunlop at the present time, and do not say that what I am saying applies to every other place. Supposing I had been managing in Victoria, or on the Murrumbidgee, and I came up here, I might think that I must do the same as I did there; but it would not work. You must find out what a district will do, and what sort of stock it will support. I brought some of the Victorian sheep—the western sheep—to Dunlop, and thought they were the best sheep out, but I found that they were very bad sheep for this part of the country, not suitable at all, and we had to change. It is a mistake to reason from premises you do not know anything about. One man says, "The western is a good sheep"; I say that it is a good sheep, and if I were a western man I would stick to the western sheep; but when



I brought the western sheep to Dunlop there was very little besides their wool, and I had to go in for another sort of sheep.

J. Wilson.

28 Sept., 1890.

3866. What kind of sheep have you here now? Vermonts.

3867. I suppose that the merino sheep is one of the hardest? It is. I have seen merino sheep on Dunlop living when the rabbits were dying from the want of feed. If you give a merino sheep plenty of water it will do with very little feed.

3868. Then, the Leicester sheep would starve, probably, where the merino would do very well? This is not the country for Leicester sheep. We may call the western part of New South Wales and Queensland the merino country.

3869. As a rule, the best sheep country is where the grass grows to a certain extent in tussocks? What we call the best sheep country is "two-acre" country. When it gets over "two-acre" country it is not what we call the best merino country.

3870. That is 2 acres to a sheep? Yes.

3871. What is this country? Ordinarily one to five, but at the present time one to ten.

3872. What I wanted to get your opinion about was, of course, a matter which I think would apply to any kind of pasture—that is, the best means of conserving the pasture, preventing it from being worn out;—it is very clear that if grass is not allowed to seed it must very soon become extinct? Yes; but I suppose there is such a thing as grass growing from the roots again.

3873. But the roots would eventually die if not reproduced by seed, and that is the great object in paddocking, so far as my experience goes? But I would not eat down the country to such an extent that there would not be some grass seed upon it. Say in a good year you put on half stock and plant grass seed, then if next year is a bad year that grass will remain there, and at the end of twelve months it would not keep sheep alive. That is our experience at Dunlop, and it certainly stands. In severe droughts the grass seed will blow off the ground. A dust storm comes, and I have seen a fence silted up to the top of the wire with grass seeds. When our sheep have got to such a pitch as at the present time, we must try to modify things in some way.

3874. Have you not known instances where, when country was first taken up, there were certain grasses which have now disappeared? On the contrary, when I came here to take up land on Dunlop, there were only some patches with any grass on it, and it is the stocking of the country which has enabled the grasses to take root. The soil was so loose that the wind blew the grass seeds and everything else off it. When I first came here I saw sandhills in which anyone would sink up to his ankles, but now, owing to the sheep running on them, they are the best grass plots on Dunlop.

3875. What descriptions of soil have you? Only two descriptions—what we call the black soil, which goes out about 10 miles—flood country, and the red soil.

3876. Is the black soil generally flood country? It is all flood country. It goes out about 10 miles to the bottoms of the ridges.

3877. Do you find that a different description of grass is produced on the black soil from what is produced on the red? Yes; in a good year the black soil produces better wool than the red soil, but in a bad year it produces about the worst wool we have.

3878. Have you the trefoil on the black soil? It is beginning to grow, but only in the garden. It is a different trefoil from what we have on the Murrumbidgee. It is more like clover here. We call it the "Darling clover," but it is something like the trefoil on the Murrumbidgee.

3879. Have you the Mitchell grass or the blue grass here? Only to a very small extent. The Mitchell-grass and the blue-grass we have in a few of the frontage paddocks. We have tried to grow them. They grow between the red and the black soil, but when you come to the red soil they do not grow.

3880. Is there any salt-bush on this run? Yes.

3881. Which salt-bush—the dwarf or the tall? There is no old-man salt-bush here now, but there was when I came here first. It is the salt-bush that seeds and springs up any year—that is, when there is any rain at all.

3882. Do you find the sheep are fond of the salt-bush? No, they are not very fond of the little salt-bush.

3883. *Chairman.*] You know Mr. M'Kinney? Yes.

3884. In his evidence before the Committee in Sydney he made a very sweeping assertion; he said that it was a great reproach to all the squatters on the River Darling that they had not irrigated and cultivated patches of land, 100 acres or 200 acres in extent, for the purpose of growing feed for their valuable stock—horses, and other animals used for station purposes; do you agree with that proposition as a whole? I would tell Mr. M'Kinney that I wish he would come up and show us how to squat on the Darling.

3885. You think it is an opinion given without sufficient knowledge of the circumstances? Yes, without a knowledge of the surroundings.

3886. Talking of irrigation on the red soil, is Mr. Langlands' place at Gundabooka an exceptionally good site for the purposes of irrigation, having red soil close to the river bank, and high up? I think it is an exceptionally good site.

3887. There are not many like that about that you know of? There is another exceptionally good site which you will see to-morrow, with crops growing on it—that is, at Winbar. They have nice crops of lucerne growing on the same sort of soil as you see here.

3888. Is it red soil or black soil? Red chocolate soil.

3889. The continuous succession of bad seasons has now set the graziers thinking that they must do something to try to cope with the long period of drought? Well, they should do it. One thing against squatting more than anything else at the present time is, that we have had no lambing of any consequence for the last four years, and the result is that now we have all old sheep, and no young ones to take their places, and it is the young sheep which turn off the good fleeces.

3890. I suppose you have to pay a great deal for scrub-cutting? £1 per week and rations for each man.

3891. Have you weighed the two positions—the employment of men at scrub-cutting, and the killing of your mulga, as against the possibilities of growing stuff to feed your flocks? We have come to try both. We do not know whether we shall succeed at either one.

3892. But, as regards graziers on the river Darling, the growing of fodder for the purpose of saving starving stock in bad seasons is at present in its infancy—it has not yet had a trial? Only on a small scale. We have been ploughing land and sowing it in the month of March, and on account of the bad seasons that has been a failure, comparatively. We got a little hay off some portion of it.

3893.

- J. Wilson. 3893. You say that now you are thinking that you will have to do something in that direction? Yes; to save our good sheep.
- 28 Sept., 1899. 3894. But, seeing that you think you will have to go back from the river, and use bore water for that purpose, the prospects of using the water from the river Darling for the purpose are very remote? I do not know any place on Dunlop where we could do it.
3895. Does that opinion apply to your general knowledge of the river—that you could not get many good sites for irrigation on red soil on the banks of the river? It applies, from my knowledge, to Dunlop. At Winbar I have seen crops growing on red chocolate soil—the same sort of soil as we have.

FRIDAY, 29 SEPTEMBER, 1899.

[The Committee met at Curranyalpa station, Darling River, at 8 p.m.]

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN.)

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

James Ireland, manager, Curranyalpa station, sworn, and examined:—

- J. Ireland. 3896. *Mr. Watson.*] How long have you been in this district? Twelve years.
- 29 Sept., 1899. 3897. What is the extent of the holding? About 170,000 acres.
3898. How much stock is it carrying at the present time? 11,000 sheep.
3899. How does that compare with your totals in ordinary years? It is a reduction of about 50 per cent. on the last two or three years.
3900. Where do you send your wool to at the present time? To Bourke.
3901. Do you generally send it by river? By river when it is navigable.
3902. And when the river is unnavigable? By team.
3903. But, in any case, always to Bourke? Yes, always to Bourke.
3904. What is the river freight between here and Bourke when you send by river? It is generally about 25s. per ton on an open river, and about 30s. or 35s. per ton on a small river.
3905. So that, with plenty of water in the river, the steamers carry the freights so much more cheaply? Yes.
3906. How does that compare with the cost of carriage by team when you have no river? The cost of carriage by team is generally equal to about £6 per ton—that is both ways. Very often you cannot get teams unless they can get down-loading.
3907. So practically you always have to arrange for back-loading? We have not; but they may get down-loading for someone else, and pick up our wool.
3908. The wool is carried to Bourke for £3 per ton? Yes.
3909. That is fairly high, compared with the rate of carriage by river? Yes.
3910. So, if you did not happen to give them back-loading of your own, or were not able to work in with some other station-holder, you would have to pay a much higher price? Yes; that is, when the teamsters have to feed their horses.
3911. So we may look upon £3 per ton by team to Bourke as being the minimum charge? Yes.
3912. Have you had to bring any fodder—chaff or other feed—for your stock during the last season? Since last October.
3913. Which way have you brought that? Mostly by team from Bourke.
3914. The river being, during that time, mostly unnavigable? Yes. I think we have had only two loads by river.
3915. It would appear, then, that it would mean a considerable saving in the carriage of supplies to the station and produce from it, if you had the river permanently navigable? Yes.
3916. Does your trade amount to any considerable tonnage during the year, taking it to and from the station? Yes. I daresay it would be about 70 or 80 tons altogether.
3917. Including in and out? Yes, excepting in a drought, when we would have to buy more fodder.
3918. Supposing that the river were locked and weired from Bourke to Menindie, do you think that that would have any effect in the way of attracting trade to the railway at Bourke, and thence to Sydney? Yes.
3919. And if later on the locking were carried out to Wentworth, have you formed any idea as to whether that would probably result in the transference of trade from Bourke and Sydney to Melbourne or to Adelaide? I think that all the river produce would go that way.
3920. Because of the cheaper means of getting it away, with a certain river? Yes.
3921. Have you ever sent any wool to Melbourne or to Adelaide by the river? No; it has always gone to Bourke.
3922. Even when the river has been open right through, you have always sent it to Bourke? Yes.
3923. Is that because of the Railway Commissioners offering any special facilities to send it to Sydney? No. It has been our rule always to send it to Sydney.
3924. I suppose that, with a high river, you have been offered favourable terms by the steamship proprietors to take it the other way? No. We never inquired about trade down the river until last year.
3925. What was the result of the inquiry then? I think it amounted to about the same thing. There was no river, as it turned out.
3926. But any offers that were made to you would be on the supposition that there was a river, I presume? Yes. 3927.

3927. And even in that contingency they were not prepared to make any reduction on what you now pay *via* Bourke? No. J. Ireland.
3928. You cannot say what you yourself would be likely to do if the river were locked right through—whether you would alter your present arrangement of sending your wool to Sydney? I do not know. 29 Sept., 1899.
3929. You are perhaps aware that, connected with this proposal for locking and weiring the river with a view of making navigation certain, there is another idea, somewhat depending upon it, in the shape of irrigation; we have noticed that a number of people up the river have engaged to a limited extent in irrigation;—do you think that that would be a matter of any great importance if the water were there to work with more conveniently than now? Yes, I do, at suitable sites for irrigation.
3930. Do you know the river between here and Bourke fairly well? Yes; pretty well.
3931. Do you think that, at different points between Bourke and here, there is a sufficiency of land fit for irrigation to use whatever water might be stored between the river banks when the river were locked? Yes.
3932. You think there would not be much difficulty in getting land of a character that would be suitable for irrigation? I do not think you would get enough land for a big extent of irrigation, but small patches here and there.
3933. What land would you consider suitable—only the red soil? Oh, no; some of the black soil; but some you could not irrigate—it is too loose.
3934. It seems a mistake to speak too generally of black soil, as there would appear to be a great variation even in black soil;—do you think that is so? I do not think you could irrigate the loose black soil in the lignum country.
3935. So it would appear that there is some black soil fit for irrigation and some black soil which is not? Yes.
3936. Which variety of black soil would you class as fit for irrigation—that with sand in it? What we call the hard flats, not the scalded country, but the salt-bush country.
3937. That is a freer black soil? Yes.
3938. It should be above flood level? Yes; it should.
3939. Between here and Bourke, do you think that there is any considerable area of land fit for cultivation? No; I think that most of the black soil is subject to flood.
3940. And the red soil is limited in quantity? Yes; I do not know what extent there is of it. I know, perhaps, of only two places on the river where the red soil runs into the river.
3941. Have you been inland a little distance back from the banks of the river? Yes.
3942. Does the flood country extend invariably for a long distance back from the banks of the river? Yes—12 or 14 miles in places, and more than that.
3943. And is it intersected occasionally by tongues of higher land? No; it is not, to any extent. The higher ground is generally on the river banks.
3944. Have you made any attempt to irrigate land at Curranyalpa? We have not tried yet.
3945. I understand that it is your intention to do so? Yes.
3946. With what object; providing fodder for your stock in times of drought? For our stock in times of drought, for working stock, principally horses.
3947. What area do you anticipate being able to irrigate? I thought we might make a start with about 10 acres.
3948. That, I suppose, would be only about sufficient to carry your working stock in the meantime? Yes.
3949. So that anything for the main body of the stock would require to be left over until you saw the result of the first experiment, I suppose? Yes; we should want to irrigate to a large extent to provide for all the stock.
3950. Have you made any calculation as to what it would cost you, in labour and machinery, to irrigate the 10 acres? No; we have been trying to find out and cannot do so very well. We thought about £3 per acre to prepare the land.
3951. That is to get it ready for the water? Yes.
3952. Would that be grading it? Yes.
3953. Have you made any calculation as to the number of men you would require to employ for that area, that is, including pumping and the working of the land itself? No; I do not think we should do it if we had to go outside ordinary station labour to do it.
3954. You would not care to engage men specially for that work? No.
3955. Do you know what will be the cost of a plant to pump sufficient water? No; we have a plant here or we should not attempt irrigation. We have had one for years.
3956. What is the height of your lift? About 40 feet.
3957. From the present level of the river? No; from summer level—about the lowest level.
3958. Is it a disadvantage to have to pump the water 40 feet? Yes.
3959. We have been told at one or two places on the river that the varying height of the river is a drawback to irrigation, owing to the fact that men have to shift their pumping plant to accommodate it to the height of the water? Yes; that is awkward. Of course with a big plant you cannot do it very well.
3960. We have also been told that in some places there is at times practically no water to pump;—is that so here, or have you a permanent pool? We have no permanent water here. It was dry here last summer—there was only a bit of a gutter. The river stopped running here last summer.
3961. So last summer, if you had had an irrigation plant, you would not have had any water to pump? No.
3962. Yours, then, is one of those holdings which would be benefited from an irrigation standpoint, from having the river locked and weired? Yes.
3963. If you were to have the water about 10 feet higher at your frontage than it is at the present time, it would be of advantage to you from an irrigation standpoint? Yes.
3964. Do you think that that example would be followed by many others on the river banks if the river were locked? Yes, I think that everybody would go in for a little irrigation.
3965. You think that every holding could find an area of land, which would be suitable for irrigation, within a reasonable distance of the river? Yes.
3966. What do you purpose putting in on the irrigation area which you propose to have? We should try wheat, and a little lucerne.
3967. You do not propose to put in any fruit? Yes, a little.

- J. Ireland. 3968. For household use? Yes.  
 3969. Not with a view of sending it away to an outside market? No.  
 29 Sept., 1899. 3970. Do you think it is likely that if the river were locked, you would put down a larger area than you propose to put down? Yes, if we made a success of the smaller area.  
 3971. You have seen the results of irrigation on your neighbours' properties? Yes, I have.  
 3972. Has what you have seen there encouraged you to go in for it yourself here? Yes.  
 3973. And do you think that there is a likelihood of your being as successful as they have been? Yes.  
 3974. You think that your land is as suitable for irrigation as their land is? I think that we have a more suitable site.  
 3975. *Chairman.*] During this prolonged drought what have you been doing to maintain first your homestead stock and then your sheep flocks? We have had to buy fodder. We have grown enough fodder I think four years in the last seven to keep the working horses going, and at other times we have had to buy it.  
 3976. And for the sheep? We have had to cut scrub.  
 3977. If mulga scrub is cut will it grow again? Very little of it will—some of it grows and some of it dies. It is the same with all the scrubs.  
 3978. So, does not this position arise: you must now look ahead; if you are going to have any more droughts you must either get some permanent way of feeding your stock or let the whole thing die out;—is that what it has come to? That is what it will come to.  
 3979. Do you think it is practicable to go in for irrigation and cultivation sufficiently to enable you to maintain large flocks of sheep? No; I do not think we could get sufficient country to irrigate.  
 3980. This proposed locking and weiring of the river is estimated to cost over £500,000; at the lowest borrowing rate, 3 per cent., that means £15,000 per year for interest;—do you think that, if the river were locked, the squatters would be inclined to pay something in the way of tolls? No; I do not think they could.  
 3981. With regard to irrigation, do you think that they would be able to pay 5s. per acre per annum for the use of the water? I think they might manage to do that.  
 3982. That would not come to a very large item? No; I do not think there would be a big extent irrigated.

Herbert Cochrane Suttor, proprietor of Curranyalpa station, sworn, and examined:—

- H. C. Suttor. 3983. *Chairman.*] Have you considered the scheme for the locking of the river Darling, between Bourke and Menindie, from the point of view whether, as there is to be a large expenditure—over £500,000—the State should or should not expect some return as a contribution towards the payment of interest on the capital outlay and the cost of maintenance, in round numbers, in all about £20,000 a year? Of course, if the Government construct the weirs, they are perfectly justified in getting interest on the money, but if it is to come out of the squatters' pockets, the squatters would consider whether it is better for them to pay for intermittent land carriage as at present, than for them to be continually taxed towards payment of the interest on the money expended on these works.  
 3984. But it is not intended to tax the squatters only—there would be other contributors? I quite understand that; but even then the squatters' share would come to more than they pay now for intermittent carriage. For some years past, with an open river, we have had the benefit of the river for nothing.  
 3985. I did not mean to convey that there should be a direct tax, but a toll on the tonnage of the goods conveyed by the river? Then, I suppose, the consumers would pay the tonnage dues.  
 3986. But if the squatters in this part of the country were dealt with in a more liberal spirit by the Government, in regard to extension of tenure, the squatters would be put on a better footing? Certainly, they would; and I do not suppose that they would grumble at paying for any advantage they might derive at the hands of the Government.  
 3987. What do you think would be a fair tenure, having in view the fact that this country is subject to such prolonged droughts? I think that a fifty years' lease would not be too much—I mean thirty years added to our present term.  
 3988. Having had a considerable experience of the country adjoining the river Darling, do you consider that it is suitable for small settlement? No, I do not.  
 3989. I suppose the reason is that for grazing purposes you must have a large acreage to support a sufficient number of sheep for a man to live on, and that, for agricultural purposes, owing to the distance from a market and the low rainfall, the expense of agriculture would be too great? With this rainfall it takes a large area to run a large number of stock. Our average rainfall is about 11 inches.  
 3990. Would you like to supplement Mr. Ireland's evidence with regard to the necessity for doing something to provide on squatting properties against prolonged droughts? I think it is practicable to grow a certain amount of stuff here to keep your large stock through a drought, but I do not think it is practicable to grow enough stuff to feed sheep. It would take 4 lb. a day to keep a sheep in fair condition. Some people think that 2 lb. would do it. A sheep might live on that quantity, but it would only just do that.  
 3991. *Mr. Watson.*] I suppose you always have a certain proportion of your flocks of sheep which is especially valuable to yourself—that is, the breeding ewes and rams? Yes.  
 3992. Would it not be possible to grow sufficient fodder to at least carry those through a time of drought? It would be possible to grow sufficient fodder, I daresay, to keep the rams and a few stud ewes alive.  
 3993. If a man has spent some years and money in working up a flock of sheep he does not like to part with the best of them, even though to keep them alive it may cost him more than they might bring in the market? Most people here have found it impracticable to breed stud sheep on account of the general shortness of fodder.  
 3994. *Mr. Dick.*] From the evidence of your manager we gathered that with a fair river the average freight is about 25s. per ton as against £3 per ton on an average road carriage to Bourke; if the river were canalised by means of these locks and weirs, do you think it would pay you to send all your produce to Bourke and to get all your stores from Bourke at the present average freight of 25s. per ton, and with a Government due of 10s. per ton both inwards and outwards? Yes, I think it would pay me. It would be a matter of calculation as to what it would cost by land carriage.

3995. Supposing that by means of the construction of these locks and weirs transit down the river to Adelaide or to Melbourne were rendered permanently safe, do you think that under those circumstances you would send your wool either to Melbourne or to Adelaide instead of to Sydney? I would rather send it to Sydney, if I could get it taken to Sydney as cheaply. In fact, I would pay a little more to send it to Sydney rather than to Adelaide or to Melbourne. H. C. Suttor.  
29 Sept., 1899.

3996. Is Sydney, in general, a better market for the sale of wool than either Melbourne or Adelaide? I do not see why it should be. Good wool will bring its price, and buyers go to the markets where the good wool can be bought. I have sold wool both in Sydney, Adelaide, and Melbourne.

SATURDAY, 30 SEPTEMBER, 1899.

[The Committee met at Kallara station, Darling River, at 9 a.m.]

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Charles Graham Weir Officer, part-owner of Kallara station, sworn, and examined:—

3997. *Mr. Shepherd.*] What is the extent of this run? In round numbers, 1,000,000 acres.

3998. What is its carrying capacity in a fair season? We have had the place valued several times by competent people, and they reckoned that in an average season it ought to carry about 160,000 sheep. C. G. W.  
Officer.  
30 Sept., 1899.

3999. About 1 to 7 acres? Yes.

4000. Has there been any decrease of late years in the number of sheep? Yes, a considerable decrease.

4001. Do you know what the losses have been? No; but the losses have been pretty considerable. The difficulty is to get any increase at all. This year we have lost nearly all the lambs.

4002. I suppose you know what you have on the run at present? This time we have shorn 81,000, and we expect to shear also 15,000 stragglers. Last year we shored 83,779, so we have a slight increase this year. The year before that I think the number shorn was about 101,000.

4003. Has the average yield of wool per sheep decreased at all in these bad seasons? Of course, on the older sheep the drought has had a very bad effect. A lot of old ewes, I suppose, do not now cut more than 3 or 4 lb. per head, and there are very few young ones coming on to take their place.

4004. And of course the younger sheep give the largest yield? Yes. Another point is the class of sheep one employs. I think it is five years ago when we went in for Wanganella rams—merino sheep that come from the Wanganella estate, in the Deniliquin district. They are a famous breed, and they are having a distinctly favourable effect on the cutting capacity of the wool; but then the drought has interfered very much, because their progeny nearly all died in the droughts, and we are left with the old sheep.

4005. I suppose that, as a rule, you introduce other sheep occasionally, not only with the view of improving the quality of the wool, but also for the hardiness of the sheep? In recent years we have confined ourselves entirely to Wanganella sheep. They seem to combine hardiness with a fairly good quality of wool. They have obtained a great name in Riverina.

4006. What description of grasses have you on this run, chiefly? I do not know the names of most of them. There is very little Mitchell grass. There are couch grass, Mulga grass, silver grass, and star grass. Those are about the principal kinds.

4007. Have you none of the blue grass? Very little. We have another grass, namely, the cane grass. Horses are fond of it. On the Paroo there is a native sorghum. That grows on the flood-country, after the water has gone over it. It grows 6 feet high. It is too rank for sheep, but it makes excellent fodder for cattle. However, you get that only after a flood.

4008. Have you any quantity of trefoil? No; but we have something allied to it—the Darling clover.

4009. I suppose you have the ordinary scrub that is used for feeding sheep in bad seasons? Yes; we have mulga, leopard wood, and that kind of stuff. There is very little of that on the leasehold area of Kallara. It is nearly all in the back country, on the resumed area.

4010. Have you been using the scrub during the last two or three years? We have been using the scrub for the last three months.

4011. Have you had very many men employed in cutting it? There are three camps, but I do not know the exact number of men; I suppose there would be twenty-five or thirty altogether.

4012. You had not cut any scrub prior to about three months ago? No. I mean we had not cut any scrub during the present drought. In the past, I believe there was scrub cut for a few weeks on one occasion, and then the rain came. We have been more fortunate than some people have in this drought. For one thing, we are very much under-stocked.

4013. Can you account for your having an increase, and other people having a decrease? Last February twelvemonths we had a very good rainfall—a very much better share of the rain than anybody else round about—and it was followed by an inch a fortnight afterwards in a thunderstorm; and that gave feed throughout the whole of the year, when other people were forced to use their scrub.

4014. To that you attribute the increase this year? Yes, combined with the fact of our being under-stocked.

4015. You have been carrying out a system of irrigation here for a great number of years? Yes.

4016. I suppose that you have heard of and studied the question of locking the river? We have heard a great deal about it. I do not know that we have given it a great deal of consideration, but we have talked over it.

4017. Have you not talked over the advantages you are likely to derive from the locking of the river? Yes; certainly.

4018. What advantages do you think that not only yourself but also the squatters generally along the river would reap from the locking of the river? In the first place I suppose we should get very much longer

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longer navigation, which would of course mean cheaper transit; and, secondly, it would give us a higher level of water for irrigation purposes. All our wool goes to London by way of Adelaide; it goes down the river.

4019. If the river were locked you would have even greater facilities than you have now for shipping *via* Adelaide? Yes; I suppose that locking the river would certainly mean better or longer navigation. Our sheepskins have gone up the river—small lines—to be sold in Sydney.

4020. Have you never sent the bulk of your wool, *via* Bourke, to Sydney? Yes; last year most of it went by team to Bourke, but that was because there was no river navigation, and it was shipped from Sydney to London.

4021. But, in the event of the river being locked, I suppose you would invariably send down? Yes; unless circumstances should arise from which we might think it more advisable to sell our wool in the Colony. But we have always sold our wool in London ever since my father started the business; we have stuck to the original arrangement.

4022. You send by the cheapest route? Yes. When the river generally is open for navigation permanently in a fairly good season, I think that 35s. per ton is the freight to Goolwa, with 5s. more to the ship's side at Adelaide. Of course, in a season like the present, when the river is open only spasmodically, we have to pay higher rates.

4023. Have you frequently been blocked for want of navigation? Yes, pretty frequently. Last year, we got a little wool away by the river. That went up the river, because we could not get it down.

4024. *Chairman.*] This work will involve a very large expenditure—£500,000;—if locking the river in the way proposed enabled you to send your wool regularly to Adelaide, do you think you should be prepared to pay some percentage on the freight towards the payment of the interest on the Government expenditure? I suppose we should. I should have to consult with my co-partners before I could answer such a question; but speaking personally, I do not think there would be any doubt about it.

4025. With a safe river, you would have to pay a much lower rate of insurance, would you not? Yes. I do not think there would be any difficulty about the matter to which you have referred.

4026. Does it not strike you as being reasonable? Certainly it is reasonable.

4027. With regard to the irrigation question, do you think that irrigation crops could be grown, which would help you to maintain your more valuable stock during dry seasons here? I believe we could on this place. You see, we have the plant already, and it is used not only for irrigation, but also for other purposes. Of course, the supply of steam power is one of the principal questions.

4028. Is it at all feasible that you could go in for growing fodder by irrigation to provide for your big flocks in times of drought? I do not think it would pay us to grow fodder here for the purpose of keeping our large flocks in times of drought; but I believe it would pay us to grow fodder for our horses and our stud rams. We have not grown anything by irrigation for our rams yet, but are talking over the possibility of doing it.

4029. How many acres of wheat have you in crop, irrigated? Twelve acres.

4030. And also the garden attached to the residence? Yes.

4031. And you are encouraged by that wheat crop to enlarge the irrigation? Yes, we think of putting down a new field next year; we propose to put down 17 acres.

4032. *Mr. Watson.*] During the last year's drought most of the pastoralists on the river seem to have been consuming their capital, or reserve power in the shape of scrub, with the view of tiding over the difficulty of the present trouble;—do you see any way out for them, in the future, in the way of getting other methods of keeping their stock in bad times? That is an exceedingly difficult question to answer. I should think that one way would be to reduce the number of stock on the runs in ordinary seasons.

4033. Practically, to carry under your capacity? Yes, carry under the Government assessment.

4034. Some of the stations lately have been carrying considerably under the Government assessment—for instance, at Curranyalpa, with 170,000 acres, this year they have shorn only 11,000 sheep, I understand; and those it seems have been kept alive on scrub since last October;—in that case there would not be any way out of the difficulty by a further reduction of the number of sheep, because I should not think that 11,000 would be too many for that large area of country? No, it would not. The Government would have to make some considerable allowance.

4035. Do you think there is no other method than the present one of dealing with this back country—that is, in the way of clearing off useless scrub, and encouraging other scrub to grow, by conserving in paddocks or something like that? Of course in those places you do conserve as much scrub as possible. But all paddocks have not got scrub to feed sheep on, and you have to make the best of your opportunities.

4036. But, after this extensive cutting of scrub during the last year or so, the outlook is rather black for another drought? Very gloomy indeed. I have often talked over that matter with people here, and we have not been able to see a clear way out of the difficulty. Perhaps if the country were "spelled" for a good time, grasses and natural scrubs might come again,—for, according to all the experience of the older men here, there is no doubt that twenty or fifteen years ago this country was fit to carry a much larger number of sheep than it is at present. A great many of the natural scrubs and shrubs have either died or been killed. The rabbits, for one thing, have done an enormous amount of damage.

4037. They are not very numerous at present? No, the drought has killed them, as it has the stock.

4038. Is your holding netted against rabbits? Not all the way round; but the greater part of it is netted.

4039. Some of the pastoralists in the Central Division, having no scrub to rely upon, have, during this last drought, been feeding their stock on oats and lucerne bought in the Sydney market; might it not pay people, who have facilities in the way of water and decent land, to grow either oats or lucerne with the view of carrying their stock through here in a similar way? I am very doubtful whether it would pay in this country. In the first place it is not altogether an easy matter to get a suitable place for irrigation, along the river, because it is all subject to flood. A flood may come down and wash away all your fences, drains, and everything else. There are only one or two spots along the frontage where you could properly irrigate, and if you were to go further back you would have to take the water too far.

4040. How far back would you have to go in order to escape the flood area on your run? You would have to take the water back 2 or 3 miles; but the area is limited, and as the ground is high there would be a very considerable lift for the water.

4041. But, taking the general run of the frontage, how far would it be back to the land that is not liable to flood? The flood area is very irregular. In 1890 we could row in a boat from here to Goorimpa, 60 or 70 miles. There are sandhills, and the country is too high to be dealt with by means of irrigation. You could never get it level enough.

4042. Therefore, so far as irrigation is concerned there is not a great area on Kallara which is suitable? No considerable area. There is a very small piece of it, indeed, that is suitable for irrigation.

4043. *Mr. Dick.*] When the river is navigable you usually send your wool to London *via* Adelaide? Yes.

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4044. With the river made permanently navigable, as it would be under this scheme, and with a consequently reduced insurance, and other advantages which such a river would offer, there would be still less temptation on your part to send your wool to London *via* Bourke and Sydney, would there not? Yes, considering all things equally. There might arise circumstances in the wool market which might induce us to sell either in Melbourne or in Sydney.

4045. But so long as you desire to sell your wool in London you will send it down the river? Yes.

Andrew Whittet, engineer, Kallara station, sworn, and examined:—

4046. *Mr. Dick.*] How long have you been here? A little over sixteen years.

4047. Have you personally superintended the irrigation which has gone on here? Yes.

4048. How long ago is it since you started it? Seven or eight years ago.

4049. With what area? Eight acres, I think.

4050. What did you sow that with? With lucerne for three years.\*

4051. What was the crop in each of those three years? It was not a success. I do not know whether it ran out or what was the cause.

4052. Did you get any crop off it at all? Yes; but it did not grow to the height to which lucerne generally grows.

4053. After the first three years, what did you do with the irrigated area? Enlarged the paddock into 12 acres and sowed wheat.

4054. What was the result of that sowing? Very good.

4055. Can you give quantities as to that? I should think from 25 to 30 tons off the 12 acres. We irrigated three times for one crop unless it rained.

4056. Putting on at each irrigation, how much water? We pumped four days and four nights.

4057. With a pump discharging how much? Roughly, say, 500 gallons a minute.

4058. And as the result of that you got from 25 to 30 tons off 12 acres? Yes.

4059. Can you give us any idea what labour, other than the labour involved in pumping, was employed in one year in preparing the land, &c.? I suppose it takes a man with two horses about fourteen days to plough, sow, harrow, and roll the seed in. The ground is exceedingly hard for ploughing. While irrigating, there are two men all the time on the paddock watching it. The paddock is not properly graded. If it were, one man to watch it would be sufficient.

4060. The 500 gallons per minute that you mentioned comes to 3,000,000 gallons per watering? Yes.

4061. And three times for each yearly crop would be 9,000,000 gallons for 12 acres? Yes.

4062. Do you think that the fact that the land was not properly graded in the first instance necessitates the use of a larger quantity of water than would be the case if the land were properly graded? Yes, I should say that it takes about one quarter more water on account of that.

4063. How long do you allow the ground to lie after each watering? If the weather is hot, perhaps three weeks or perhaps a month. It all depends on the weather. Between three weeks and a month is the usual time.

4064. It is on the red soil, is it not? Yes; but not the usual red, sandhill soil.

4065. Does that crack much after the sun gets on it? Yes, very much.

4066. Do the cracks absorb a large quantity of water? Yes.

4067. Do you think if you could get a suitable site composed of black soil it would be better for irrigation or worse? I do not know. The black soil cracks very much, too, after a flood.

4068. Does the red soil become very hard and consolidated after the watering? Yes.

4069. Viewing the matter generally, do you think that irrigation on patches such as that, or larger patches, is a success compared with buying fodder? In a place like this; but, I do not think it would ever do for people to come here to start irrigation—I mean I do not think that they could compete against people who get water naturally.

4070. We have been assured by one witness, who presumes to know a great deal about this question, that it is a reproach to all the pastoralists along the Darling River that they have not availed themselves of the water of the Darling to irrigate patches of from 200 to 400 acres for the purpose of growing fodder as an insurance against drought—in other words, to keep large numbers of their sheep alive during a drought; do you think that that is practicable? Certainly not, unless it were for stud rams or other specially valuable stock.

4071. How do the fruit-trees grow in the garden here with irrigation? Splendidly.

4072. What fruits grow well here? Apricots, grapes, oranges, lemons, limes, peaches, nectarines, almonds, figs, quinces, dates, strawberries, and mulberries—in fact, everything except bananas.

4073. It is all above flood-level where these grow? Yes.

4074. We have been assured that, in most cases, if a pastoralist went in for irrigation it would be absolutely necessary for him to have his plot above flood-level; if an area of good black-soil country, properly graded, were placed under irrigation, do you think that the fact that it was not above flood-level would be a serious obstacle to the successful growth of fodder crops? No; I do not think it would be a serious obstacle, for this reason: A flood such as we are talking of does not occur very often. I have seen it only about four times on the black soil in sixteen years.

4075. You do not think that the fact that the ground is within the flood-area is a serious obstacle to the successful growth of fodder crops? No, I do not.

4076. The worst that could happen would be the killing of the crop then on the soil? Yes.

4077. And they could soon plough up the ground and go on again with other crops? Yes.

4078. One watering, at the rate you have been accustomed to give your paddock, would be equivalent to how much rain? I should think 2 inches.

4079. *Mr. Shepherd.*] Have you attempted to grow anything besides lucerne and wheat there? No. Well, there is a little oats in, but that is all.

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- A. Whittet.  
30 Sept., 1899.
4080. Do you not think that it would be possible to grow crops of maize or sorghum on a large scale, and manufacture ensilage for the purpose of feeding sheep in a bad season? I do not think so. That must run into a tremendous lot of money.
4081. I know of squatters who have had to pay £5,000 each for feeding their sheep; that would go a long way in irrigating land, would it not? It would; but it is a back-breaking business, either way.
4082. Ensilage is very much more valuable than dry food—very much better than hay? Yes. It is a very unusual thing to provide for stock in this part of the country with ensilage or hay. I think it is only exceptional places, such as Dunlop, which could do a thing like that. I do not think it would be done here.
4083. But do you not think it is a question that must be considered; the enormous loss of sheep occurring year after year through drought requires to be provided against in some way;—do you not think it is feasible to grow feed to stay them over a bad season? It would be very costly with irrigation.
4084. It is of course a matter of cost; if it would not pay to do it, it must be left alone; but it would not be wanted every year; supposing that you were to have three good seasons and one bad, could you not grow sufficient food to stay the sheep over the one bad season? Yes. Twelve or fourteen years ago there was a run of three or four good seasons; but since then, matters have gradually got worse every year until this year, when we think it is the last ebb. As to the matter of understocking, if 4 or 5 inches of rain were to come now, you could stock Kallara up to its old rate, so long as the new grass lasted—probably until another drought, if rain did not come. The seasons here are very irregular.
4085. And the seasons are getting drier and drier? Yes.
4086. Have you ever tried to think out any cause for that? I have.
4087. What is your opinion? Nothing further than no monsoons coming this way. They appear to have gone out of their usual course during the last few years. I do not think the cutting of scrub has had anything to do with it.
4088. You do not think that the killing of the timber has had anything to do with it? No.
4089. Where there is a large quantity of timber growing do you not think that there is an immense amount of moisture carried into the atmosphere through the foliage of that timber? Yes.
4090. Do you not think that it is only reasonable to suppose that where there is a large amount of moisture carried into the atmosphere, it is more likely to come down somewhere near the spot where it is taken up than be carried away hundreds of miles to the sea? No. I think the amount of evaporation that goes up through trees is infinitesimal.
4091. It would not be your opinion that, if a very large amount of moisture were taken up into the atmosphere, it would be more likely to come down close by than be carried away hundreds of miles to the sea? I should not think so. Here, I think, it is carried away by the wind as soon as it is evaporated. I do not think that the cutting of timber has anything to do with it.
4092. If the seasons have become drier there must be some causes for it? There has been no scrub-cutting in this part of the world up to the last three years, and less rainfall has been gradually coming on the last twelve years—a little less and less, and so on.
4093. I suppose that the last four years have been about the driest you remember having here consecutively? Yes. My own opinion is that nothing can alter the rainfall.

MONDAY, 2 OCTOBER, 1899.

[The Committee met at Surreyville, Darling River, at 10.30 p.m.]

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Henry William Ewan, selector, Surreyville, sworn, and examined:—

- H. W. Ewan.  
2 Oct., 1899.
4094. *Mr. Shepherd.*] How long have you been at Surreyville? Twenty-one years. About nine or ten years ago I commenced my cultivation with the aid of irrigation.
4095. What area have you? Sixteen hundred acres.
4096. You are cultivating only a portion of it? Yes.
4097. How much under cultivation? Twenty-two or 23 acres.
4098. That is, including cereals and fruits? Yes.
4099. Do you grow the cereals for the grain or for hay? Chaff.
4100. What is the yield per acre? Last year I sold to the store, I think, 36 tons 15 cwt. off about 20 acres, or close upon 2 tons to the acre.
4101. About how much do you get per ton for it? It varies a great deal. I have got as high as £25, but that does not always happen. Last year I got £8 2s. 6d. I find the bags for the chaff.
4102. You irrigate that area? Yes.
4103. Have you any idea what quantity of water it takes per acre or for the whole area irrigated? I cannot exactly say. We give it three waterings—that is, when there is no rain. The first watering it takes a lot. If we were to have rain to-morrow I should not have to water it any more this time, and I should have given it only two waterings.
4104. Do you know what your pump throws per hour? There is a lot of difference. The way the water is now, you can do twice the area with the same pumping power; as the river is now, it takes only half the labour that it takes when the river is lower.
4105. What is your present lift? About 25 feet, I think.
4106. What would your greatest lift be? About 35 feet. When the water is very low it is not so good for irrigation, because it is rather salty—brackish. There are a lot of little springs in the river, and I believe that they make the river water salty when it is very low.
- 4107.



4107. As the river is now, how many days pumping does it take to irrigate the whole of your area under cultivation? It would take now, with that pump, about nine or ten days, working about ten hours per day, for the first watering, and for the second and third waterings combined it would take eleven or twelve days. The pump is supposed to throw 30,000 gallons an hour, with a 25-foot lift. H. W. Ewan.  
2 Oct., 1899.
4108. And three waterings are sufficient for your cereal crops? That is, if there is no rain at all.
4109. With regard to your fruit, grapes seem to be your principal crop? Yes.
4110. How much land have you under crop with grapes? I cannot tell you. Last year we made about 9½ casks of wine.
4111. And in a dry season you irrigate the grapes about every fortnight? Yes; before the grapes are big; after that we do not irrigate much—only for the lucerne then.
4112. What kinds of grapes do you grow? I have almost all the best kinds.
4113. Have you any idea of the number of vines you have bearing? I think 500 or 600.
- 4113½. What age are they? From about 3 years to about 7 years.
4114. Of course you send away a good deal in fruit in addition to the wine you make, therefore you cannot form a very correct estimate of the quantity of wine that you could produce? No.
4115. What other kinds of fruits are you growing? I have about 150 young peach-trees which are going on very well, but are not bearing yet.
4116. Have you any oranges? Yes, about thirty orange trees.
4117. Are they in bearing? Three of them are.
4118. Have they produced pretty freely? They have only just started to bear, but they will bear well this year.
4119. Have you no matured trees at all? Only quinces.
4120. Do they bear well? Yes, splendidly.
4121. You are really making a living off your cultivated land alone? Yes.
4122. Are you quite satisfied with your prospects? Yes. I have made a living off the ground besides paying 10 per cent. interest on what it cost me.
4123. Do you work the whole area yourself or do you get assistance in the shape of labour? In the summer, after we start harvesting, I employ a little labour until the next crop is in—one man cutting wheat, and two or three harvesting and cutting chaff, and others looking after tomatoes, &c.
4124. The rest of the year you do all the work yourself? Yes. In the winter, when there is only the crop to water, I can manage all that myself. Almost everything will grow here. Corn grows splendidly.
4125. Have you tried any of the millet crops? I have tried planter's friend. I have also tried maize.
4126. And you find they do well? Yes.
4127. All the ground that you are cultivating is what is termed, down here, black soil? Yes.
4128. Originally covered with lignum? Yes; it is the best ground.
4129. Have you tried the red soil at all? Only out back.
4130. And you have found that that is not so satisfactory as the black soil? No, it is not.
4131. In planting your grapes, did you simply plough the ground or did you trench it? I did not do either, but just dug holes.
4132. Can you form any idea of the depth you have ploughed in putting in your cereal crops? I have not ploughed for the last three years—just harrowed it in very deep.
4133. Has the trefoil come there naturally or did you sow it? I did not sow it.
4134. It has come there of its own accord? Yes.
4135. Have you ploughed the ground for the lucerne? No; it comes up after the couch. The couch withers after the summer, and then I sling some more seed over, and it is up before the couch starts again in the spring, and I think it stops the couch from coming up so much, and takes its place. It shades the couch, and I think that is what hurts the couch.
4136. *Chairman.*] I understand that your holding is 1,600 acres, of which 23 are under cultivation, and that the remaining 1,577 acres are at the present time absolutely valueless? Yes; it would not keep two calves.
4137. And is it the same character of country as your cultivation? Yes, the very same.
4138. Is your cultivation above flood-level? It is above any ordinary floods, but the 1890 flood was over the lot; but the 1879 flood was not.
4139. What effect had the 1890 flood on your cultivation? It killed all the stone fruits and the cereal crops.
4140. But did not affect the other fruit-trees? No; I put an embankment around the ground, but the flood-water came up. I did not think it would be so high. The crop was up 6 inches, and I did not like to dig that up to make the embankment bigger. If I had had a larger embankment I might have saved the crop.
4141. But the effect of the flood was to kill it? Yes; after the flood-water broke down the embankment it was over the crop about ten weeks.
4142. Do you find that the soil cracks very much? Yes. It is not cracked much now; but let it lie until I put the next crop in and then it will crack again. Still, I think that is a good thing. If you let it lie all the summer it cracks, and then if you plough it that soil goes down about 3 feet in the cracks, and you therefore have a new soil altogether. This soil is much the same as I have seen in San Joachim Valley, California.
4143. Is there much of this class of soil about here on the river? Thousands and thousands of acres.
4144. Suitably situated and above ordinary flood-level? Yes; just about the same level as this.
4145. Where is that? Between here and Bourke.
4146. You have seen it yourself? Yes.
4147. We have had it given in evidence, chiefly, that the red soil is the best for cultivation;—you seem to differ from that? There might be some red soils that are very good, and I expect that there are, up about Redbank. There are some nice red flats there. In Wilcannia you can see things growing nicely on red soil, but that ground has been trenched about 2 or 3 feet, and that would be no criterion for a man taking up land.
4148. Then your version about the black soil is that there is a larger quantity of it than there is of the red, and that it is better situated? It is richer soil.
4149. Not only is there more of it, better situated, but it is also of a better character? Yes. It is more level. Of course, you could not get very much red soil that is regular enough for irrigation.

- H. W. Ewan. 4150. There is not enough of the red soil in a suitable locality? I have seen gardens on the red soil—  
at Murtee, for instance—which have been a perfect failure.  
2 Oct., 1899. 4151. With irrigation? With irrigation by a windlass.  
4152. Do you think the soil at your place is more expensive to till than the red soil is? No, not according to the way I have cultivated.  
4153. But you do not seem to have gone very thoroughly into ploughing? No, I have not.  
4154. How far are you from Wilcannia? Six miles by road.  
4155. Can you name any other places similar to your own where cultivation is carried on? They tried it at Murtee, to about the same extent, and it was a failure, I think from lack of proper supervision; and at Murchison they have had a cultivation paddock too. That was on the red soil.  
4156. What was the result there? I think it was a very poor result; but I do not think that they attended to it properly.  
4157. *Mr. Shepherd.*] What depth have you, before you come on your cultivation ground, to the nodular limestone which appears here on the bank of the river? Well, I went down 33 feet for my well, in the same soil as I am cultivating now, without coming to any limestone, and at another spot I bored 140 feet, all through pure sand.  
4158. So this nodular limestone does not appear to extend any distance from the river? No. The following is a report, which I received from the Department of Agriculture, by Dr. A. Helms, M.A., F.C.S., Analytical Chemist to the Department, on the analysis of my soil:—

Locality of soil—Wilcannia.  
Nature of soil—Loam.

*Mechanical Analysis.*

Root fibres .....	·00 per cent.
Stones over $\frac{1}{4}$ inch diameter .....	·00 "
Coarse sand, more than $\frac{1}{8}$ inch diameter .....	·00 "
Fine soil .....	100·00 "

*Analysis of Fine Soil.*

Sand (extremely fine) .....	35·75 per cent.
Moisture .....	7·00 "
Volatile and combustible matter .....	7·82 "
Impalpable matter, chiefly clay .....	49·43 "

(Organic substances and water of combination).

*Determination of Substances soluble in hot Hydrochloric Acid of 1·10 specific gravity.*

General Value.

Lime (CaO) 0·8656 per cent. Very good—equivalent to 17,312 lb. (a) in an acre of soil 6 inches deep.  
Potash (K<sub>2</sub>O) 0·7752 per cent. Excellent—equivalent to 15,504 lb. (b) in an acre of soil 6 inches deep.  
Phosphoric acid (P<sub>2</sub>O<sub>5</sub>) 0·0599 per cent. Fair—equivalent to 1,198 lb. (c) in an acre of soil 6 inches deep.  
Nitrogen 0·0882 per cent. Satisfactory—equivalent to 1,764 lb. (d) (equal to 1·1071 per cent. Ammonia) in an acre of soil 6 inches deep.  
Magnesia 1·2252 per cent. Ferric oxide 3·8908 per cent.

NOTE.—(a) This amount of lime would be supplied in 19,235 lb. of quick lime, or 25,418 lb. of slaked lime, or 34,349 lb. of chalk.

(b) This amount of potash would be supplied in 28,698 lb. of commercial sulphate of potash, or 110,743 lb. of kainit.

(c) This amount of phosphoric acid would be supplied in 2,615 lb. of commercial bone dust, or 1,974 lb. of superphosphate.

(d) This amount of nitrogen would be supplied in 8,820 lb. of sulphate of ammonia, or 10,584 lb. of nitrate of soda.

Special points of value in the soil—Potash.

Special defects in the soil—None.

General character—Very good.

Crops for which it is most suitable, judging by its mechanical condition and chemical composition—Any crops suited to climate.

Crops for which it is unsuitable without special manure or special treatment—None.

Manures and treatment recommended—Its very fine mechanical condition indicates need of proper working, *never when wet*, as for a clay soil. As to manure, experiments with bone-dust are recommended.

[*The Committee met at Murtee station, Darling River, at 3 p.m.*]

Arthur Irwin Johnston, manager, Murtee station, sworn, and examined:—

- A. I. Johnston. 4159. *Chairman.*] How far is Murtee station from Wilcannia? Eight miles by road and 18 by river.  
2 Oct., 1899. 4160. How long have you been on the station? For the last twenty years.  
4161. How many acres are there in the run? 340,000.  
4162. How many sheep does it carry in an ordinary season? About 50,000, but owing to the prolonged drought the number is now reduced to about 17,000.  
4163. You are aware of the proposal that is under consideration—to erect seventeen locks and weirs between the present weir at Bourke, and Menindie, for the purpose of improving the navigation of the river, and also with the view, if practicable, of aiding the irrigation of some of the available land near the river banks;—would you state whether you are favourable to that proposal, which, you will understand, is to be carried out only so far as Menindie? I am not favourable to that at all.  
4164. Why not? The land is not suitable for irrigation, and there would not be any market for the stuff if you grew it. You might irrigate sufficient for your own use, but you could not irrigate a quantity and sell it, because people can land it here from elsewhere more cheaply than it would cost you to produce it by irrigation.  
4165. The Departmental authorities urge that it is practicable for the squatters, by means of irrigation, to cultivate areas varying from 100 to 200 acres each, for the purpose of assisting to keep their stock alive during seasons of drought—at any rate the valuable stud stock, and the horses and cattle required for station use; what do you think of such a proposal? I think it is very good, to keep your valuable stud stock alive, but outside that I do not think it would pay. This has been such an extensive drought. In other seasons droughts have been in localities. We might have suffered here, but you could go into other districts and get cheap sheep, but this general drought has caused a great loss of stock. I have had to sell sheep at 1s. per head. In 1891 I sold nearly 10,000 ewes at 1s. a head.  
4166. You had your runs stocked up to their fullest extent? Yes.  
4167. And as lambs were coming on you had to sell the stock for what you could get for them? Yes. In 1892 we sold 17,000 ewes at 2s. 3d., with a twelve months' bill. In 1895 I sold 10,000 ewes at 1s. 7½d.  
4168.

4168. During those three years, can you tell us what number of acres were required for a sheep? We shore 50,000 sheep that year. We had fair lambings.
4169. Can you tell us in round numbers how many acres it takes to a sheep in such seasons as you speak of, when you had to cease going on increasing your stock? About nine acres to a sheep, as I have fed them by cutting scrub.
4170. That is about the utmost carrying capacity of the run? Yes.
4171. And from that time down to the present things have gradually got worse? Yes. We had no sheep to sell. We could not rear any lambs.
4172. Do you, as a man of long experience here, see any way of coping with prolonged droughts in this part of the country, as regards sheep-farming? No; I cannot make a suggestion as to getting through a prolonged drought. A one-year drought I could see my way to get through by cutting scrub, but not a succession of years of drought.
4173. Will the scrub you cut grow again? Some will and some will not—leopard wood will, but mulga will not.
4174. Is there much leopard wood? Yes, there is a good deal on this run.
4175. Is the run paddocked? Yes.
4176. Seeing that you do not approve of the river being locked only so far as Menindie, do you not think that with a constant river between Bourke and Menindie it would suit the squatter to send his wool by river up to the Bourke railway and on to Sydney market? It might in some seasons. But I do not think that people down here would do it.
4177. Then your view is this: That if New South Wales were to spend over £500,000 in locking this river as far as Menindie the result would be to send the trade of this part of the river down to South Australia? Yes. All the lower people will cart it over to Broken Hill as they do now.
4178. Then, if higher up the river we have had evidence that the trade will go upwards towards Bourke, you think that is a mistake—they thought it would happen all the way down the river? I do not think so. All the people from Wilcannia downwards are either South Australians or Victorian people.
4179. Their sympathies in trade are with Melbourne and Adelaide? Yes; and it will be cheaper to send it that way.
4180. So far as your experience goes, do you think that the locking of the river would induce a number of small settlers to come here and take up holdings, and irrigate the land and grow crops and fruit? I do not think so. I think that they could do far better inland, towards Sydney, where they get a rainfall and do not require to irrigate. They are close to a market there; but there is no market here. I think it would be only putting the people on the land to perish. If they had any money they would lose it.
4181. Beyond a few holdings of that character, to supply local requirements, you do not think that it would pay people to come to this distant part of the Colony, and go in for growing fruits for drying purposes? No, I do not think so. The market is so limited here, and I do not see how they could compete against what other people could bring up from below. Mr. Ewan, at Surreyville, in my opinion, is kept going by reason of the droughts, and the consequently high prices for produce locally. In good seasons he could not, in my opinion, compete against the imported produce.
4182. If your view is correct, that, with a locked river, all the produce would go to Adelaide or Melbourne, what do you think would happen if a railway were constructed from Wilcannia to Cobar;—do you think that the graziers near Wilcannia would use that railway if they had a favourable river? No, I do not. A man will not pay £5 for what he can get for £2 10s.
4183. They would use that railway merely as a convenience when they could not get the goods down the river? That is all. It would be very handy to Wilcannia in a time of drought, I admit, and would enable people to get their starving stock away to another district, or to fetch fodder hither.
4184. You are not sufficiently patriotic to say that you or your employers would use the railway if they could get the river transit cheaper? I am not patriotic in that way at all.
4185. If your view is correct—that locking the river would have the effect of taking away the trade from the chief port of export of New South Wales—would it not seem that it would be fairer that an undertaking of that kind should be shared in generally by the colonies? Yes; I think it is entirely a Federal matter.
4186. *Mr. Dick.*] Would you, during the drought of the last four years, have been able to avail yourself of a railway—that is, presuming one were built to Wilcannia—for the purpose of getting your starving stock away to more favoured districts? Yes.
4187. How long could you keep them there? I should try to sell them.
4188. The object would not be the preservation of their lives with a view of bringing them back to this place? No; to get them out of the district with the object of selling them.
4189. Would the boiling-down establishment give you the same opportunity of disposing of your stock in such seasons? Yes; but they give such low prices for them. They can boil down only at a very low price.
4190. Then you do not think that there is much in the use of such a railway for the purpose of carrying starving stock away with the view of bringing them back at the end of the drought? You could bring back young breeding ewes. If you were pinched and had to send them away you would perhaps bring them back, but I do not think it would pay to bring old ewes back.
4191. During the last drought, which would have been the more economical, to send your breeding ewes and valuable stud sheep away to some more favourable locality or to import forage to feed them here, supposing you had had a railway in each case? That is a moot point, because there is so much country rented by inside people that I do not know where you could have got good country last season, there being a general drought. Of course, that would not apply to ordinary droughts. I think you could feed only stud sheep, rams, and horses, on imported fodder, because of the great price of fodder here.
4192. Supposing the river were locked, do you think that, to liquidate the interest on the cost of the locking and the expense of maintenance, a Government due of 10s. per ton on goods, inwards and outwards, would be excessive? It is a big item.
4193. What is your carriage now to Melbourne? I send *via* Wentworth and Echuca.
4194. What is your carriage to Melbourne with a good river? I cannot exactly tell you, for the simple reason that it is paid in town, and I do not get any account of it; but it is within £3.
4195. Do you know how much extra it is with a bad river? About 10s. a ton. The carriage of goods that I had brought up on the last rise (last November) and this rise was £2 per ton from Echuca. We got

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got the wool taken right down into South Australia from Wilcannia for £1 per ton, and goods have been taken from Morgan to Bourke for 10s. per ton with a full load and a good river.

4196. Then you still think that 10s. would be a serious charge for the Government to impose for such services as the locking of the river would give? Yes. I think 5s. would be ample.

4197. *Mr. Watson.*] How have you got your goods during the droughts of the last year or so;—did you always manage to get them by river? Yes.

4198. You would get sufficient in at a time? Yes, for twelve months.

4199. And during the twelve months you would get a chance of getting more goods up? Yes.

4200. Have you always been able to get your wool away on a rise? It has been here some time. Three times since I have been here I have had to send two clips away together.

4201. Would it not pay you to get your wool away at an extra cost of 10s. per ton? Yes.

4202. What Mr. Dick was trying to ascertain was whether it would pay you to give 10s. more than you give on an ordinarily full river, for the purpose of insuring certainty of transit, and the consequent reduction of insurance following on certainty of transit? I doubt it.

4203. You do not think it would pay you? No.

4204. The charge from Bourke to Sydney by rail would be enormously greater than the charge from here to Adelaide or to Melbourne, with a full river? Yes.

4205. But is it not likely that whichever authority undertakes the work of locking the Darling will expect to be recouped in some way by dues? Yes.

4206. Have you formed any opinion as to what would be a fair charge, both for the Government and for the people who would benefit by the locking? I should think 5s. per ton.

4207. Is river insurance now a large item on wool? Yes.

4208. How much per ton would it amount to, approximately? The locking of the river would not alter the insurance.

4209. The safety of the navigation would have that effect? The insurance varies, but I do not think to such an extent as that. However, I am not prepared to say what it is, as these things are all seen to in town, and I get no account of them.

4210. At any rate, you think that an extra charge of 5s. could be borne without any hardship? Yes, I think so, for the certainty of transit.

4211. You said you thought that there would be no market for any large area of irrigation produce? Yes, I said that.

4212. Would that be your only objection to irrigation—for instance, do you think that people could get enough land along the banks of the river to use whatever water might be conserved? I do not think that the bulk of the land is suitable for it. There are only a very few spots suitable for irrigation.

4213. You have had some experience of irrigation here? Yes; and I did not get any good result.

4214. What class of land? An ordinary black-soil flat.

4215. Was it subject to flood? Only to a very heavy flood.

4216. Was it land that was covered by the flood of 1890? Yes. All the country, excepting the sand-hills, was under the flood-water in 1890.

4217. Was the land you tried anything like a fair average of the land along the banks of the river? Yes; I picked it.

4218. And the result was not satisfactory? No.

4219. Can you inform the Committee more in detail what your experiences have been, as your evidence seems to be against the evidence we have had from people up the river? Away up the river you get different soil; it is different country altogether after you pass Tilpa; the country gets better up above that. I never got a good result. I reckon that half my seed was lost through the cracks. The water took the seed down the cracks. I put 2 bushels to the acre, and it ought to have come up thicker.

4220. Have you attempted to get over that difficulty by filling up the cracks when cultivating? Watering it causes it to crack after a time; this can only be avoided by keeping it moist all the year. I only ploughed the ground and harrowed it once and put the seed in. The only decent crop I got was on the banks of the drain where the water did not go over the land but percolated underneath—the crop was good on the banks.

4221. That is your experience in attempting to grow fodder? Yes.

4222. Have you attempted to grow fruit? Yes.

4223. With what result? The trees bore good crops some years.

4224. All under irrigation? Yes.

4225. To what do you attribute the variation in the fruit yields? I cannot tell you. I thought that that was natural to all fruit crops—that if you had a big crop one year you did not get it the next. Grapes grow well every year.

4226. What kinds of stone fruits have you been able to grow? Peaches and apricots.

4227. Have they grown well? Yes; the apricots are not very large, but the peaches are very good.

4228. Were the peaches planted on land below the highest flood-level? Eight feet above the highest flood-level.

4229. Do you think that with suitable pieces of land, such as you have near your house, 8 feet above the highest flood-level, people here would have as good a market for dried fruits of that description as the people at Mildura would have? No.

4230. Why? Because the Mildura people are nearer to Melbourne and Adelaide.

4231. But with a locked river right through, I presume that they would be able to get their fruit away very cheaply, would they not? Yes.

4232. But you think that on this portion of the river there is not a great deal of suitable land sufficiently high? No; there is not.

4233. You think there would be no possibility of getting fodder to an outside market and competing against those who rely on the natural rainfall? No; I do not think that anybody could do any good with fruit out here. See the terrible struggle people had at Mildura, where they had every convenience. In Tasmania, Victoria, and round about Sydney, people can grow any quantity of fruit, and some people have told me that they feed pigs on it; but what could we do with fruit here. Poor people could at the utmost stay here only a year or two.

4234. You are not very favourable to small settlements here, then? No.

4235. What outlook is there for the grazier if any big drought comes on; supposing this one to be finished,

finished, which it is not yet, there would not be a very great deal of scrub left, would there? I have plenty of scrub but no water where it is. The outlook is very bad. Nobody could live here if another bad year were added to this series of droughts.

4236. Have you attempted to get water at places away from the Darling? Within the flood area of the Darling we can get water by sinking for it and drawing it up with whims, but there is no scrub there. Outside that, the chances are that you will get salt water. In prospecting for water and sinking trial shafts, you get ten salt-water shafts before you get one you can drink from. I am talking of the south side of the river. I know nothing about the other side.

4237. *Mr. Shepherd.*] You have lost considerably more than half of your stock here? Just about two-thirds.

4238. And I think that is about the general average of the losses all the way up the river to Bourke, is it not? As far as I hear, yes.

4239. Of course, that presents a very serious outlook for the future? It does, indeed.

4240. Has any combined effort been made on the part of the stock-owners between here and Bourke to consider the condition of things? Not that I am aware of.

4241. Do you not think that it would be wise to have a conference for the purpose of devising some scheme by which these terrible losses might be averted? I do not see what they could do, for this reason—the drought has been so general, that even if there had been a conference and they had arrived at anything, it would have failed. That is my opinion. The only thing, so far as I can see, that they could have done was to get the sheep out of the district, and then they would have been only going into the fire.

4242. At that rate, the whole country would become depopulated? It would if this drought were to continue.

4243. But there is an old saying, "In the multitude of councillors there is wisdom," and by having a conference of a large number of stock-owners it is possible that one might suggest one thing, and another another, and out of the whole something might arise that would possibly assist in staving off these terrible losses by drought? It might, but I cannot see what form it could take to meet a drought like the one we have gone through.

4244. You do not seem to have any hope in regard to the irrigation part of this proposal? Very little.

4245. You have tried irrigation, and it proved a failure? Mine was a failure, at any rate. There are very few good spots for irrigation along the river. I have a little red ground upon which I could grow a crop if I went to the necessary expense.

4246. I think it is a fact that within the last twelve months many squatters in the Colony have spent over £5,000 each in buying fodder for their sheep? Yes.

4247. If half that money were expended in providing pumping machinery and preparing land for irrigation, do you not think that some good might arise from it? Yes, I do.

4248. By providing the means of irrigating, and cultivating certain grasses that are found to suit the district, ensilage could be manufactured so as to stave off the effects of a bad season? I started to cut scrub when the sheep were fairly strong. They did not begin to die till after being three months on the scrub. I was cutting for nine months altogether. A year ago last month I shored nearly 43,000, and I had nearly 20,000 lambs, and I sold 7,500, which reduced the number to about 55,000, which, if we had started to do what you suggest, I should have had to feed, and it would have taken a terrible quantity of stuff. It would have amounted to 2 or 3 lb. a day for each sheep, and if you went into figures you would find that that would have meant a terrible quantity of fodder. If it had lasted six months I should have been put to terrible expense, and the sheep would have died after all. You can get through a short drought. I got through the 1888 drought—I got through the one year fairly well. We lost a few thousand sheep, but we got over that very quickly.

4249. The object of irrigation is to take the place of rain, and if irrigation can be made to act in the place of rain in some way or other, there might be some means devised of producing sufficient food, not to keep the stock in a marketable condition, but to stay them over a bad season? You might stay them over a few months, but this year we had twelve months' drought, and in fact are in it now.

4250. What did the scrub-cutting cost you? I did not go into figures this year as to what it cost me; but I have cut scrub here for three months for 35,000 sheep and it cost me 1d. per head per month.

4251. Were you able to do it with the station hands? No; I had to put on extra labour.

4252. That scrub-cutting cannot go on for ever? No; we would cut the scrub out.

4253. And when that is exhausted you must look to some other source of supply? Yes. The scrub is now cut too far away from the water.

4254. You think that the country round about here is, as a rule, unfit for irrigation? That is my experience at any rate. There are isolated spots a man might grow a decent crop on.

4255. And even if you had a railway from Cobar to Wilcannia, you think that it would be very difficult to move stock to another district where feed could be secured? There would be no difficulty about it, except in a season like this when there has been a general drought. It is not often that a general drought takes place all over the Colony. At Milparinka they had a magnificent season for four years, while we have been perishing. All last summer they had green feed knee-deep.

4256. Have you tried to cultivate anything here beyond lucerne and wheat, in the shape of fodder? No. I have had a small patch of millet in the garden here. I got one crop off it; but I thought it would grow three crops in one season, which was a mistake.

4257. *Chairman.*] You stated a little while ago that to maintain sheep on dry food—not the natural growth—they require about 2 lb. each per day? Yes.

4258. To maintain a flock of 50,000 sheep it would amount in round numbers to 45 tons a day? Yes.

4259. Now, as a practical manager of a station for a number of years, do you say it is practicable, either by means of ensilage or by planting patches of cultivation, to carry out a proposal of that kind? No, I do not.

4260. Would it pay? No, it would not. It did not pay the people on the Murrumbidgee to feed their good sheep. They ate their heads off, and their owners also lost them. Outside our rams and a few stud sheep it does not pay to feed sheep in that way.

4261. You stated a little while ago that it cost 1d. a sheep per month to feed them by scrub-cutting? Yes.

4262. With fodder at £5 a ton the cost would amount to 2s. 8d. a sheep per month;—is that not too much out of proportion to attempt to feed your flocks upon imported fodder? Quite too much.

A. I.  
Johnston.  
2 Oct., 1899.

WEDNESDAY, 4 OCTOBER, 1899.

[The Committee met at Tintinallogy station, Darling River, at 2 p.m.]

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Bertram Reid, Tintinallogy station, sworn, and examined:—

- B. Reid.  
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4263. *Mr. Dick.*] How far is Tintinallogy from Wilcannia? Fifty miles by road.
4264. What is the acreage of the holding? 183,000 acres, approximately.
4265. Carrying, in a good season, how many sheep? About 30,000 or 35,000.
4266. But now, owing to the protracted drought, carrying only how many? Between 3,000 and 5,000, according to muster.
4267. As a practical producer, and one pecuniarily interested in this matter, do you think that the locking of the Darling would have the effect of sending trade to the Cobar-Wilcannia railway if it were built? So far as we are concerned, it would not. It might in an extreme case, but not to the extent of sending all the wool or stock.
4268. In general, your main product would be sent, as it is at present, down the river? Yes.
4269. And, even if the river were not locked, so long as you had a navigable river it would still pay you to send your wool down to Adelaide? Certainly.
4270. Can you say whether there are others in a similar position to you, who would do the same thing in case a railway were built from Cobar to Wilcannia, whether the river were locked or not? Yes; I say that others would do the same.
4271. You think that as a commercial undertaking it would always pay you to send your wool down the river and home to England rather than by rail to Sydney? Yes.
4272. Well, presuming the proposed Cobar-Wilcannia railway were not built, and that the river were locked and weired, do you think it would pay you to give 10s. per ton on inward and outward goods for the benefit of permanent and safe navigation by means of the locking—in other words, do you think that that would be an excessive charge to levy? Yes, I think it would.
4273. Can you offer any opinion as to what would be a fair charge? I am not in favour of locking the river.
4274. Will you favour the Committee with your reasons for objecting to it? I do not look upon it only as a matter of personal convenience and of saving money, but I consider that the surrounding country does not want the expenditure.
4275. Do you think that there is anything in the secondary proposal, namely, that of irrigation in connection with the scheme for locking the river;—do you think that small blocks of 200 or 400 acres could be irrigated along the course of the river if its level were permanently raised by means of these locks? They could be irrigated.
4276. Do you think it would pay to irrigate the blocks? No, I do not.
4277. It has been stated to us, as a reproach to all the pastoralists situated along this river, that they have not availed themselves of the water of the river for the purpose of producing fodder crops, as a sort of insurance against losses of stock during times of drought; do you think that such a scheme of insurance against those losses is a practicable one? No, I do not.
4278. Will you indicate to the Committee the condition of your run at present in regard to feed? Yes. On the whole of the 183,000 and odd acres there is not a blade of grass now, and the few sheep we have are living on windfalls and blue-bush, and what little edible scrub is left; and at the end of this week I shall have to start scrub-cutting again.
4279. How long is it since you ceased scrub-cutting? About ten weeks, as near as I can remember.
4280. Is much of the surrounding country in the same deplorable condition as yours? Yes.
4281. A good deal? Yes, a very big area. It may not be quite so bad, but it is much of a muchness.
4282. May the Committee take it for granted that in general—leaving out the small exceptions you have mentioned—neither the construction of the railway from Cobar to Wilcannia nor the locking of the river Darling would result in the sending of your wool and other produce to Sydney? Yes.
4283. *Mr. Shepherd.*] I think that, so far, you have irrigated only for garden purposes round about the house? That is all.
4284. Do you think that you have any considerable quantity of land here that would be suitable for irrigation? No, we have not—not close to the river. It is nearly all black ground, and you cannot irrigate that in a practicable way. It is too hungry; you could pour water on it for days and you would not see any of it on the surface.
4285. You have no red soil that would be accessible for irrigation? No, we have not.
4286. Have you ever tried any crops on the black soil without irrigation? No.
4287. I think you said that the run is now quite destitute of grass? It is.
4288. Have you any kinds of shrubs or other forage, such as scrub, for the sheep? Yes, we have some.
4289. I suppose that is the only stand-by you have? Yes, it is. We have no salt-bush. That was the great stand-by of this country, but practically that is all dead.
4290. How do you water the sheep out at the back of your run? With wells.
4291. Are they still affording a water supply? Yes.
4292. Have you to sink very deep for water? No; the deepest well is 100 feet.
4293. And the wells give you an ample supply? Yes.
4294. Is there no land out back, where those wells are, which would be suitable for irrigation? Where those particular wells are, there is not, because they are right on the bank of the Talyawalka Creek, and that country is similar to the river country.
4295. What extent of land have you irrigated for your garden purposes, round about the house? I suppose 1 acre or 1½ acre—that is, under irrigation now.
- 4296.

4296. Do you find all kinds of vegetables answer well? Nearly every kind.

4297. And fruits? Yes, most fruits.

4298. All that I have noticed have been a few vines and oranges; have you any stone-fruits? Yes, apricots and peaches.

4299. And they do well also? Yes, very well. We have not many peaches now. The white-ants have killed the trees. I think we have only three or four peach trees left.

B. Reid.  
4 Oct., 1899.

FRIDAY, 6 OCTOBER, 1899.

[The Committee met at the Mechanics' Institute, Menindie, at 10 a.m.]

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | WILLIAM THOMAS DICK, Esq.  
JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Samuel Klemm, junr., storekeeper, Menindie, sworn, and examined:—

4300. *Chairman.*] How long have you lived here? Twenty years.

4301. And you have a pretty good knowledge of the district generally? Yes.

4302. Would you tell us, in the first instance, what effect you think the locking and weiring of the Darling, between Bourke and Menindie, would have from a navigation and trade point of view? It would have a most beneficial effect because we would have a regular river for the boats, whereas now it is very irregular.

4303. I would emphasise the fact that the present proposal stops at Menindie? Yes.

4304. And you say that it would induce trade along the river, by giving you a regular river for the getting of your goods and for the disposal of the produce of the district? Yes.

4305. But in what direction do you think that would tend—up the river or down the river from Menindie? Up the river.

4306. To where? To Bourke, I think.

4307. What makes you think that? Having a regular river it would pay everyone to get his goods by the river because he could get his supplies regularly.

4308. Do you think that that would prevail where there is such a great difference between the charges for river carriage down towards Adelaide, and the charges for river carriage from here to Bourke, and rail carriage from Bourke to Sydney? I would sooner pay a little more to have a regular river, so that we need not keep surplus stock, in which case you often overbuy.

4309. Can you tell us what are the rates by river from here to Adelaide, with a good river, and also with a bad river? The freight from Adelaide varies from about £2 10s. to £6 per ton.

4310. The distance by river from here to Adelaide being how many miles? About 600 miles, I think, to Murray-bridge, where the goods are put on the railway.

4311. Do you know what the railway freight is from Murray-bridge to Adelaide? About £1. It varies according to the goods, but averages about £1.

4312. The distance from here to Murray-bridge by river seems to be about the same as the distance from here to Bourke by river; with a regular river from here to Bourke, do you think that the river freight would be much less than the amounts you have indicated between here and Murray-bridge, with an irregular river? I consider that with a regular river from Bourke the boats would carry goods for £1 per ton.

4313. And, then, of course, in addition to that, you would have the railway freight from Sydney to Bourke? Yes.

4314. Do you know what that is? No.

4315. How do you get your goods now? From Adelaide.

4316. From Adelaide traders or from Sydney traders? From Adelaide traders at present. Sometimes I get goods from Sydney; but they take some time to get round. On a rise in the river, like the present, I might order goods from Sydney and they might be delayed at the Adelaide wharf, and then the river might go down. I have had goods lying at Adelaide for six months. Another lot of goods that I obtained from Sydney could not be got at Adelaide, and they were taken to Western Australia, and thence brought back, and were delayed in delivery nine months.

4317. There is also under consideration a proposal for the construction of a railway from Cobar to Wilcannia, Cobar being only about 200 miles from Wilcannia by railway. I suppose that the carrying out of these two proposals, the locking of the river and the construction of the railway, would serve you even better than the other? Yes.

4318. So far as your twenty years' experience has gone, has the intermittent river traffic been a serious disadvantage to the people of Menindie and other residents in the locality? It has.

4319. Do you know whether graziers have suffered inconvenience by reason of not being able to get their wool away? Yes.

4320. Is the rate of insurance considerably higher by reason of the dangerous state of the river sometimes? It is. I know that the insurance companies were rather disinclined to insure on the low rivers, because of snags.

4321. Going down stream, I believe the steamers do not, as a rule, travel at night time? No, they do not. There is a condition in the insurance policy that they are not allowed to travel after sunset with anything insured.

4322. Seeing that this scheme involves the expenditure of about £500,000, do you think that the residents of Menindie, and other people along the river, including yourself, individually, would be willing to pay something in the way of river dues, or in the shape of an increased tonnage rate, to help in some degree to pay the

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- the interest on such a large expenditure? I think so. I, myself, would be very willing, because I have suffered great inconvenience through the river being down.
4323. Seeing that you think that the river steamers would carry the goods, with a good river, at about £1 a ton, as against prices ranging sometimes as high as £6 a ton, which you have to pay, do you think that a river-due of about 10s. per ton would be a fair thing? Yes, I think it would.
4324. That, of course, would be for the whole length of the locking. I suppose that for shorter distances it would not be so much? I think that the river steamers would carry big loads even for 10s. a ton.
4325. Do you know what some of the barges carry when fully loaded? From 150 to 250 tons of goods; and most of the steamers drag two barges.
4326. So that sometimes as much as 500 tons would go at one haulage by a river tug? Yes, you can put it down at about 600 tons, for the steamer itself would carry some as well.
4327. With a regular river, and being able to keep their hands constantly employed, and with a reduction in the insurance rate, and possibly being able to travel day and night, it would seem only reasonable that a fair due should be paid for all those privileges? Yes.
4328. And at the rate I suggest—10s. a ton—the dues on a tug and its two barges fully loaded would result in an amount of revenue to the Government of £300 each trip? Yes.
4329. At the present time, after the prolonged drought, of course the conditions of the district are no guide; but in good seasons and with large flocks on the Darling lands, is there always a large amount of trade here up and down the river? Yes, supplies inwards and wool outwards.
4330. Do you know whether the graziers have suffered inconvenience by reason of their goods being detained on a low river? Yes, they have.
4331. Have they had to keep their wool in sheds for a long time? Yes. A person just below here carried his wool on to the bank of the river, but the steamer could not get up because the water had closed, and the wool was left on the bank of the river for nearly twelve months. It was covered with tarpaulin, but it all got wet with the light rain, because it had not sufficient covering. It was a very severe loss for him. That is just one instance; many others could be given.
4332. Having regard to your own knowledge of the capacity of the land about Menindie for cultivation purposes under irrigation, what has been the result of your observation? So far as I have seen, irrigation has been very successful.
4333. On what class of country? On all.
4334. Red soil and grey soil? Yes; the grey soil on the flats is a splendid soil for irrigation.
4335. I suppose it is necessary that the land should be above ordinary flood-level? Yes. Some people are using the grey soil for gardens, and they have a dam above the 1890 flood-level, so as to protect them from other floods. Irrigation has been successful in the growth of hay, lucerne, and vegetables. Onions and potatoes have been very successfully grown.
4336. I suppose it has been engaged in only for the purposes of local supply? Yes.
4337. Not to any great extent? No.
4338. The reason, I suppose, being the distance from a market, and the difficulties in the way of conveying perishable crops to market? Yes. About here, people look to the Broken Hill market a great deal, because the overland carriage is too slow and too expensive.
4339. You know the Menindie Creek, 3 or 4 miles below the town of Menindie; will you tell us what height the water in the river has to rise above ordinary summer level before it flows into that creek and fills it, and subsequently feeds Lake Menindie? It feeds the lake at about 12 feet above summer level.
4340. Can you tell us what height at the present time the water in the river is above summer level? The gauge indicates that at the present time the water is about 10 feet 2 inches above summer level.
4341. So that a rise of 2 feet more would induce a flow into the lake? Yes.
4342. The proposal of the Government, as regards the heights of the locks and weirs, if carried out, will not permanently raise the water in the river to as great a height as it is at the present time; that being so, I suppose we may take it as a certainty that those locks and weirs would not have the effect of forcing the water back up Menindie Creek into Lake Menindie? That is quite correct.
4343. As a reason for that, I may state that these locks and weirs must not be constructed too great a height along the entire length because, if they were to be made higher than is proposed, then, owing to low-lying banks adjoining a great portion of the river, they would have the effect of flooding large tracts of country; and I suppose you agree that that is a matter that ought to be considered? If the locks and weirs would not raise the water in the river higher than it is now, there need be no fear of the locks and weirs flooding any part of the country all along the river, so far as I know it—that is, as far as Wilcannia.
4344. I should like you to give that answer some little thought, because Mr. Darley, who is the Engineer-in-Chief in charge of works of this kind, stated that he could not recommend that the height of the weirs should be raised by more than 1 foot above the proposal on the plan, because if that were done the floods would go all over the country, and possibly do damage;—do you agree with that? No. If the weirs would not raise the water more than 4 feet higher than it is at present they would not, in my opinion, do any damage. I base my opinion upon experience of previous rises and observation. I feel quite certain on the point.
4345. You, then, regard the proposed scheme as one that would largely fail in its objects unless the effect of damming the river by these weirs were to send the water up these creeks and anabranches of the Darling;—is that so? No.
4346. Do you not think that that would be a very desirable thing to do? It would benefit even more if it were the case.
4347. With regard to Lake Menindie, how long has that lake been dry? The water went all over it in March last, after a flood, and then it emptied itself again, and at present it is dry.
4348. Can you tell us what height the river was when that happened, and was the lake fed from the river? The river rose up to about 15 feet 6 inches, and the lake was fed from the river.
4349. What is the greatest depth of Lake Menindie when the lake is full? It is about 25 feet in places.
4350. What keeps the water in the lake after a flood;—does it all run out again? Yes. Menindie Creek is very deep. I think the water in the lake pretty nearly all runs out because the creek runs right through Lake Menindie into Lake Cawndilla.
4351. So that when the river becomes lower than the entrance to Menindie Creek at its junction with the Darling, the water begins to flow outwards into the Darling again? Yes.
- 4352.



4352. That being so, if, in connection with this scheme, it were proposed to impound the water in Lake Menindie some kind of weir would have to be erected in Menindie Creek? Yes.
4353. Do you think it is desirable, in the interests of this district, that Lake Menindie should be kept as a water reserve, or be utilised in any other way? I think it should be kept as a water supply.
4354. What would be its utility? There are homestead lessees and other people who live around the lake whom it would benefit, if you had water in it.
4355. For their stock, and also for irrigation? Yes.
4356. Has there not been some other idea? Yes, ideas differ. Some people say that Lake Menindie ought to be kept for irrigation and farming.
4357. What do you think of that idea? The soil is very good, and it would not cost much to irrigate it, after the water was once over it.
4358. But, owing to its considerable depth and the large catchment area, would not the crops be liable, in a sudden downfall of rain, to be flooded? No.
4359. The absorption would be too great? Yes.
4360. If that were done, the entrance to Lake Menindie would have to be blocked up, so that the river water could not flow into the lake? Yes; it would not be very costly.
4361. When I was here in September, 1896, the residents of Menindie were very keen on railway connection between Broken Hill and Menindie, for various reasons—a large supply of firewood to Broken Hill, Menindie to be the outlet for the Broken Hill people, and cultivation by irrigation to go on at Menindie, with the view of supplying the requirements of the Broken Hill people;—are you and other people still of opinion that that would be one of the best things for Broken Hill, and also for Menindie? Yes; it would be a great boon for Broken Hill, and for Menindie, too. It would mean a population here of about 3,000. It would be one of the best things that could ever happen for this place, and also for Broken Hill. The present price of firewood at Broken Hill is 30s. a ton. If a railway were constructed from Menindie to Broken Hill, we, having an unlimited supply of timber, firewood could be landed in Broken Hill at about 10s. a ton, including railway freight. Besides that, there would be a lot of irrigation in this district.
4362. Do you still, as an old resident of Menindie, regard a railway from here to Broken Hill as one of the first necessities in the interest of this district? Yes. There are a number of people hoping that that line will be constructed, and waiting to start irrigation settlements. I am one of them. I would go in for irrigation straight away if I knew that that railway was going to be constructed, and there are others waiting here with the same object.
4363. *Mr. Shepherd.*] Where do you get your goods from now? When there is any river I get them from Adelaide; but when the river was good I used to get them from Sydney. I get all my boots from Sydney now, but I have to use the parcel post.
4364. Would you be willing to pay the extra freight on railway carriage from Sydney, if the river were made permanently navigable? I have been paying extra freight from Sydney in getting these goods from Sydney. The charges are very heavy in Adelaide. There are certain lines that I can buy more cheaply in Sydney, and that makes it worth my while to get them there.
4365. If the river were always navigable, that would render it easier still for you to get the goods *via* Bourke than *via* Adelaide? Yes.
4366. You would then get the whole of your supplies from Sydney *via* Bourke? Yes.
4367. Do you think that that idea is generally prevalent amongst the storekeepers here? It seems to be.
4368. With regard to Lake Menindie, I did not gather exactly the effect of the return of the water after a flood subsides;—it does not empty the lake altogether, I suppose? Practically it does.
4369. You say there is about 25 feet of water in Lake Menindie? In the 1890 flood there was.
4370. And a 12-foot rise in the river fills that lake? No, it does not fill it; it runs over the bed of the lake.
4371. What rise in the river will put 25 feet into Lake Menindie? It was a 29-foot rise in the 1890 flood here; but, that is phenomenal.
4372. Then, I suppose, there was 29 feet in Lake Menindie? Practically. The lake is a little higher than the bed of the river.
4373. But I always understood that as a rule Lake Menindie was regarded as a permanent supply;—was that not so? When the dam was across Menindie Creek there was water in it for about two years, until the dam broke away. I think that in the 1886 flood the Government sent the unemployed up to construct a dam there.
4374. *Mr. Watson.*] I think you stated that, with the river at 12 feet above summer level, the water would begin to flow from the creek into Lake Menindie? Yes.
4375. Would that be sufficient to carry it into the other lake beyond Lake Menindie, which communicated with it? Yes; it would just about run into Lake Cawndilla as well.
4376. If the proposed weir immediately below Menindie were raised 4 feet more, which would bring it up to a 10-foot lift, that would put the water 3 ft. 6 in. above what it is in the river at present? Yes.
4377. That would be more than sufficient to run into the lakes you mentioned? Yes. That would be 12 feet.
4378. Assuming it to run in at 12 feet, 4 feet more on the lift on the weir below Menindie would ensure a level of 14 feet on your summer gauge? Yes.
4379. And that would be 2 feet above what would be required to make the water run into Lake Menindie? Yes.
4380. With a 12-foot river, what depth of water would you get in Lake Menindie;—would it just run in and no more? It would be deep in patches. It might be 1 foot or 18 inches in places, but in other places only just over it.
4381. So, with 3 feet 6 inches additional on to a 12-foot river it would not mean a very great depth of water in Lake Menindie? No.
4382. Only 4 feet or 5 feet at the outside? Yes.
4383. How long do you think that would last as against the evaporation, assuming that a flood-gate were put in to block the water? It would last twelve or eighteen months. The evaporation is not very great.
4384. Do you know the circumference of Lake Menindie—the area that is covered by water occasionally? No; but I think the distance across it is about 12 miles.

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4385. I have been informed that the lake is about 35 miles in circumference;—would that be approximately correct? Yes, it is quite that.
4386. Do you know anything as to the quantity of land that is suitable for irrigation about here, independently of the lake area;—do you know if there is much that is high enough and suitable in quality? All the land around the lake is suitable for irrigation.
4387. But, confining ourselves for the time being to the river bank, is there any land adjoining the river, or close to it, which is suitable for irrigation? Yes.
4388. High enough as well as being the right quality of soil? Yes.
4389. Would that be of considerable area, or limited? There is a considerable area of it.
4390. It has been stated in evidence that land subject to flood is not suitable for irrigation, at any rate so far as the cultivation of some kinds of fruit trees, and so on, are concerned;—is there much land not subject to flood about here? Yes, any quantity of it.
4391. It seemed to us, when travelling down the river, that the immediate banks were lower about, and towards Menindie, than further up the river;—is that so, or is it a fact that the banks are not so much subject to flood about here as they are further up? I cannot say for certain.
4392. Take the 1890 flood, for instance, which was one of the highest floods you have had; how far back from the ordinary banks of the river did that flood extend? It is hard to form a gauge, for at some parts it goes out a long way, and at other parts it does not. From here to Albermarle, a distance of 18 miles by road, it is high land all the way—that is, on the northern bank of the river—and the flood water does not go out more than about half a mile, excepting into two lakes.
4393. That would not apply to the southern bank of the river, I presume? No.
4394. That is more subject to floods? Yes, although there is a good bit of high ground there. But this side it is nearly all high ground.
4395. Is this land, in addition to being sufficiently high, otherwise suitable for irrigation? Yes, very suitable.
4396. Has any of it been tried in that way? Some people are trying it now.
4397. What has been their experience? The results have been very satisfactory.
4398. So it would seem to be your opinion that there is no doubt about getting sufficient land of the right character to use any water that could be stored in the river? I am quite sure of that.
4399. You do not think the getting of the land is the difficulty? No. You can get the land and the right soil, too.
4400. That seems to be the tenor of the evidence we have had, so far, from people on the river—that they do not anticipate any great difficulty in getting land, but rather the difficulty of getting enough water? That is it. Once we get the water we shall get the land.
4401. It has been stated in evidence that flood-land is not suitable for irrigation? I have seen flood-land irrigated with great success.
4402. What were they cultivating it for? They were growing potatoes and onions.
4403. But the market for that kind of produce would be comparatively limited in a place like this? I do not know.
4404. Supposing you had a good river between here and the coast, you could hardly hope to compete in regard to that class of produce—such as potatoes and fodder—against the more favourably situated people in good climates, could you? I think I could compete against them.
4405. That is, supposing you had cheap carriage by river? Yes.
4406. Have you yourself attempted to grow anything by irrigation? Yes, I have just experimented.
4407. Generally speaking, you think you could compete against people on the coast, in regard to such produce, by means of irrigation, notwithstanding their better climate, owing to the easier means of access you would have? Yes, I feel sure of that.
4408. As to the suggestion made by Mr. Darley, which the Chairman mentioned—that the raising of the weirs 3 feet or 4 feet more above the present level of the river would be a danger;—have you any doubt in regard to the opinion you expressed a little while ago? No, I have no doubt.
4409. You think there would not be any danger? There would not be any danger at all.
4410. How much above the present level could the river rise without flooding the adjoining banks? It would take a 7 or 8-foot rise before it would commence to flood the adjoining country; the river would have to be about 17 feet or 18 feet above summer level before it would commence to get across the flats.
4411. And you think it would be safe to put the weir to the height of (say) 4 feet above the present level of the water in the river, which is 10 feet 2 inches? Yes; you could go 5 feet above it, I think, without any danger.
4412. If you had the water at 14 feet in the river, because of the weiring it would go over the banks sooner than if the river were not weired? Yes.
4413. Do you think that if that flood-water went over the surrounding country, because of the river having been locked and weired, there would be any trouble in the way of a claim by owners of adjoining country for compensation? No; I do not think so.
4414. Do you think that, spread over the adjoining country, the flood would be any great depth? No. Most of those people like to see the country occasionally flooded, because when the water has gone off there is feed.
4415. *Chairman.*] You have been here about eighteen years? From eighteen to twenty years.
4416. How is it that people about here have not gone in for irrigation where they are close to the river? I do not know. It seems to have been a lack.
4417. You are beginning to wake up? Yes. Since the homestead leases were introduced, people have begun to go in for pumping plant—windmills, and so on. All those settlers are commencing to irrigate land for gardens.
4418. Whereabouts? More so below Menindie. They are coming up from below, and taking up land as they go on. Up to Wilcannia there are a lot of settlers who were not there a few years ago.
4419. What is the population of Menindie now? Very little over 100, I think.
4420. It has fallen off lately? Yes.
4421. Why? Through the continuous droughts. People had to go somewhere else to seek a living.
4422. I suppose you look upon the droughts as a menace to the district more than any risk of flood-water injuring the district? Yes. There would have been more irrigation if there had been an outlet for the produce.

4423. Therefore, with a river suitable for irrigation, you must have some outlet for your produce? The two things would combine. S. Klemm, junr.
4424. *Mr. Watson.*] In the event of the river being flooded to the height of the banks, there would be a considerable area of land in lakes and creeks, ordinarily dry, which would be filled before the water extended over the general surrounding country, would there not? Yes. 6 Oct., 1899.
4425. You said the water would begin to go over the ordinary banks at about 18 feet? Yes.
4426. At what level would it begin to flow into Lake Pamamaroo? That lake gets filled very quickly.
4427. At about what height? About 11 feet would flood it.
4428. Would other lakes be filled at a similar height, or would they require more? No. Tandora Lake takes about 15 feet in the river.
4429. So that all those natural reservoirs would have to be filled before the general body of the surrounding country would be inundated? Yes.
4430. It would be an advantage, I suppose, to the surrounding stock-owners to have those filled? Yes.
4431. And the raising of the weirs to the proposed height, as mentioned by the Chairman, would not have the effect of filling those lakes? No.
4432. Whereas the addition of 3 or 4 feet more to the weirs would have that effect? Yes.
4433. *Chairman.*] You have stated that the carrying out of this work would probably induce you to deal with the New South Wales railways and Sydney? Yes.
4434. Others may not be of that way of thinking; seeing that this work is proposed to be carried out at the expense of the New South Wales Government, do you not think that, if it were carried out, they ought, either below Menindie or Wentworth, to impose certain charges on goods going to or coming from the other colonies? I think so.

Alfred Edward Ellis, butcher, gardener, and baker, Menindie, sworn, and examined:—

4435. *Mr. Shepherd.*] How long have you been a resident of Menindie? Four years. A. E. Ellis.
4436. Have you been carrying out any scheme of irrigation here? Yes. 6 Oct., 1899.
4437. To what extent? Five acres.
4438. What does it consist of? Potatoes, onions, cabbages, turnips, parsnips,—every vegetable you can name; and almost every kind of fruit that is grown in the Colony.
4439. You have not tried any kind of cereal crops? No; but there are some self-sown wheat and oats growing luxuriantly there.
4440. Do you irrigate by steam-engine? By steam-pump and boiler.
4441. Have you estimated what it costs you per acre? I have not gone into figures; but we have been clearing about £3 per week out of 2½ acres.
4442. Right through the year? Yes.
4443. Of course the years have been exceptionally dry ones the whole time you have been here? Yes, exceptionally dry—very bad seasons.
4444. In ordinarily good seasons the irrigation would not cost you so much? No; there would not be so much steam required for lifting the water as there has been with a low river. If the level of the river were raised to the extent proposed, much less firewood would be burnt, because less steam would be required, and in ordinary seasons the growing of things would be cheaper, because the rain would help.
4445. You grow all kinds of fruits? Yes—pine-apples, lemons, pears, plums, oranges, strawberries, apricots, mulberries, and figs.
4446. Have you tried cherries? I had a cherry-tree; but, unfortunately, I flooded it too much, and killed it. It was nearer to the tank than it ought to have been, and negligence was the cause of its death; but I am going to put another tree in next June.
4447. Do you find any particular kinds of fruit do better than some others—for instance, do you find the citrus tribe do well here? Yes, oranges and lemons grow luxuriantly here; in fact, we can have them ripe quite two months before you can on the seaboard.
4448. Do you generally dispose of them all in the neighbourhood? Yes; we have had only a few trees, which supplied the immediate wants, because the expense of getting the fruit to Broken Hill by coach would be too great.
4449. How much land have you altogether? We have 5 acres. We are experimenting; but I would take up 100 acres if I had the means of putting the produce on the Broken Hill market as cheaply as the South Australian people can do it.
4450. What effect would the locking of the river Darling have in reference to your industry? It would induce more men to take up land and irrigate it. I am quite sure of that. Last year we supplied homestead lessees along the banks of the river with potatoes and onions when they could not get them up by boat.
4451. You have always found a ready market for what you have been able to produce? Yes; for anything imperishable I have found a ready market.
4452. You have not, I suppose, tested the Adelaide or the Melbourne market with your lemons? No; too far away. Last year we grew a quantity of tomatoes—the most beautiful specimens, I think, you could see. I could not dispose of them here. I sent some to Broken Hill on trial and they fetched 8d. a lb, but the cost of getting them there swallowed up all the proceeds. The balance I turned into tomato sauce—300 dozen—which I sold as soon as I had made it; that gave me 100 per cent. profit. The inhabitants of the place can speak as to its quality, and I am prepared, under favourable conditions, to start a factory which would employ at least fifty hands in that industry alone.
4453. Have you ever estimated the return you have had from any particular crop per acre? No, not per acre. I have taken only the profits we have made weekly.
4454. You have such a large variety, in fact, that it would be difficult to particularise? Yes.
4455. I suppose, there has been no flood in the river since you came here? I came here at a flood-time.
4456. There has been no local rain to speak of since you came here? Hardly any—5 or 6 inches a year.
4457. I suppose, then, you are not able to give much information as to the effect of floods—that is, where the country is sometimes flooded? I have seen the effect of a flood in producing food for stock, since I have been here.
4458. I mean you have not been here during a time when the country has been flooded to any extent, have you? Yes I was here at a flood-time. 4459.

- A. E. Ellis. 4459. To what extent was the country flooded then? All the land on the banks of the river was flooded when I came here.
- 6 Oct., 1899. 4460. What is the extent of the flood;—what area of country does it cover, as a rule (say) with 10 or 12 feet of flood above the bank of the river? On the southern side of the river, the 1894 flood went out about 2 or 3 miles. That was only in one particular spot, right opposite Menindie. Further up and down the river the country was not flooded to that extent.
4461. You do not suppose that the raising of the weir (say) 1 foot would make any appreciable difference in regard to the flood, do you? No, I am sure it would not.
4462. Because where the weir would be built the river probably would not be more than 40 yards wide, and of course a foot rise in that 40 yards, spread over such an immense area, would really make no appreciable difference? No. It would not hurt the banks in any way.
4463. Do you think that in the event of this additional supply of water being given it would induce a large number of people to go in for irrigation? I am quite sure it would.
4464. Is there a large extent of country here suitable for irrigation? Miles and miles of it.
4465. What description of country? Sandy and a grey loam.
4466. More so than the red? It is a red sandy country and a grey loamy country.
4467. Which do you think would be the better to irrigate on a large scale, what is generally termed the black soil, or the red soil? It all depends on what you are going to grow. I have irrigated both sandy soil and grey soil. Some things grow better in one soil than in the other, but they both bear certain kinds of produce excellently and would pay anybody.
4468. But in going in for irrigation on a large scale it would be chiefly for the purpose of producing forage? I have seen cereals, lucerne hay, and grass hay grown to perfection in the sandy country, and I have also seen it grown in the loamy country; in fact I have some growing there now.
4469. What kind of soil would these do best in? They would do well in either soil, the only danger is that on a sandy soil the seeds might be blown away by a high wind if not protected.
4470. Have you seen any attempt made to cultivate millet, sorghum, and planter's friend? Yes; I have sorghum growing now.
4471. How do they seem to do? Very well. They grow to a height of 8 or 9 feet.
4472. Could you form, from your experience, any opinion as to the cost per acre of irrigating to a large extent for the purpose of feeding stock? Well, I have about 1 rood of lucerne and sorghum growing at the present time, and that only gets the attention that we can spare from the butchering and baking, to keep it going—that is two or three hours a day, or perhaps only one hour on some days—you can form an estimate of the cost from that.
4473. That is estimating that about three good waterings would be necessary for most of those crops? So they would.
4474. I want to know what you think it would cost per acre to give three good waterings to (say) 100 acres? I do not suppose it would cost more than 2s. per acre for each watering.
4475. At that rate, then, you think it would pay handsomely to grow forage for stock—sheep for instance? Yes, I am sure it would.
4476. Do you think it is at all feasible that a large extent of land could be irrigated successfully for that purpose? Certainly.
4477. That is, it would pay better than purchasing forage, and bringing it to the spot—it could be produced on the spot more cheaply than it could be imported? Certainly. I have fattened some hand-fed stock myself, and the result was very satisfactory; for instance, I fattened two sheep that way. They were pets about the house, and primer sheep when they were killed I never saw.
4478. In the area that you have cultivated, have you manured freely? Yes, very freely.
4479. What kind of manure have you used? Stable manure and bone-dust—phosphates.
4480. Of course, in cultivating a very large area, it would be almost impossible to manure it? The sandy soil requires little or no manure. I found, in the first planting of seeds, that they did not thrive as well as they ought to have done, although they came up very prolifically. I then tried manuring, and it was more successful; and I should advise anybody taking up flood-country, that they would find it profitable to manure, because the result is so much greater.
4481. Is the large quantity of country which you have said is suitable for irrigation so situated that it could be irrigated without grading? No; it would all have to be graded.
4482. I suppose, then, it is undulating to a certain extent? Away from the immediate bank of the river it is undulating.
4483. But you do not think there would be any difficulty in bringing it under irrigation? No difficulty whatever.
4484. *Chairman.*] With regard to Mr. Shepherd's question as to growing food and making ensilage, did you intend your answer to apply only to stud stock and station horses and cattle, or to the whole of a man's herd? I think that small homestead lessees could raise stock and always have fat stock by hand-feeding them, and make a profit out of them; whereas, under present conditions, they lose half their flock, and in some cases the whole of it.
4485. But you do not intend that to apply to flocks of 15,000, 20,000, or 50,000 sheep, I suppose? Oh, yes. The larger the number fed that way the more profitable for the owner raising them.
4486. How much dry fodder per day do you estimate it would take to sustain a sheep? I used to give my two sheep from 3 to 4 lb. of grain and chaff.
4487. Are you aware that for a flock of 50,000 sheep 2 lb. of fodder per sheep a day would amount to 45 tons a day;—do you think that it is practicable for a man to grow and store such a large quantity of fodder to sustain his flocks in seasons of drought if he has to give them 45 tons a day? I should hardly think that it would be practicable for one man to do it unless he had a very large amount of capital at his back, but very few holdings about here are carrying such a large flock as 50,000 sheep.
4488. *Mr. Watson.*] Did the two sheep to which you gave the 3 or 4 lb. get anything else to eat? No.
4489. But on a station where there is some herbage I suppose that less than that quantity would do for two sheep? Yes; half the quantity would do where there was any picking at all.
4490. *Chairman.*] But are you aware that during the present drought on the Darling there are holdings of 180,000 acres with not one blade of grass upon them? Yes.
4491. *Mr. Watson.*] But where there is no grass there is probably herbage which helps to keep the sheep alive? Yes.

4492. Have you any idea what is the lowest per ton at which you could grow fodder, for I want to know whether you think you could compete against people on the coast; for instance, if they had a free waterway right from there to here? I could grow lucerne for £5 a ton, extensively. A. E. Ellis.  
6 Oct., 1899.
4493. Could not people on the coast, with a free river, afford to sell lucerne hay here as cheaply as that? No; we cannot get even very bad lucerne hay as cheaply as that.
4494. At Newcastle and in the Hunter River valley, generally, people sell lucerne as low as £2 10s. and £3 per ton; assuming it to be delivered at Adelaide at £3 5s. per ton, what do you think the price would be here, with a good river? Quite £6.
4495. And you say you think you could grow lucerne and sell it, at a profit, at £5? Yes.
4496. So, even with a free river, you think that with irrigation you could compete against the imported article? I am certain that I could.
4497. *Chairman.*] You spoke about homestead lessees just now;—do you mean those who occupy 10,000 acres each? Yes.
4498. How many sheep do you think a man could keep on 10,000 acres in this country, in a fair season? Most of the leases that I see about here would go about 9 or 10 acres to a sheep, and that would mean a little over 1,000 sheep on 10,000 acres.
4499. Could a man make a living out of 1,000 sheep? He could make a living, but it would not be a very grand one.
4500. *Mr. Shepherd.*] In feeding the sheep the object would not be to get them fat? No; to maintain them until a better season.
4501. And do you not think that a sheep could be kept alive on  $\frac{1}{2}$  a lb. a day? I am quite sure that it could be kept alive on 1 lb. a day. I made my two sheep very fat on 4 lb. a day between them.

William Maiden, hotelkeeper and stock-owner, Menindie, sworn, and examined:—

4502. *Mr. Dick.*] How long have you resided in this district? Ever since 1859. W. Maiden.  
6 Oct., 1899.
4503. Do you think that the direction of the main body of traffic, both inwards and outwards, to Menindie and places as far up as Bourke, would be materially altered by the construction of these locks and weirs from Bourke to Menindie? I do.
4504. In what direction? It is water that helps to bring people to settle on the land, and what the people here at present so often require is a means of sending away their produce. The river is up one week and down the next. When it is in flood freights are fairly low, but on these small rises all kinds of freights are charged according to the height of the river, to a very great extent. If there were a standard freight from here to Sydney, *via* Cobar or Bourke, Sydney people would know what they were doing, but at the present time it is quite uncertain what they may have to pay for the carriage of produce.
4505. At the present time is not the whole of the trade of Menindie and many places further up the river carried on with Adelaide or with Melbourne? A good many of us carry on trade with Adelaide. However, a great many stations deal with Sydney firms, but the goods come from Sydney *via* Adelaide on account of that being a better route.
4506. What class of goods? I am now speaking of station stores from Sydney.
4507. Is there a fair proportion of the pastoralists in this district who trade with Sydney in that way? I believe a good many.
4508. And do you think that, with a permanently navigable river, the number of those who trade with Sydney *via* Adelaide would be increased? Yes.
4509. For how many months in any one year, since the construction of the railway to Bourke, has there been a navigable river, within your recollection? We once had a good river for about two years.
4510. During that period of two years in which you had a good river, did you notice any alteration in the course of trade along the river;—did it concentrate at Bourke instead of going to Adelaide? A good deal came down from Bourke, and a good deal also came up; but the river is sometimes up to-day and down to-morrow, and people by ordering big lines from one port get the goods so much more cheaply. At that particular time steamers coming up stream were landing stuff at a wonderfully low rate, on account of the quantity, and because the water was open from Adelaide to here much longer than it was open from here to Bourke. The river from here to Bourke was closed perhaps two or three months earlier, and that of course blocked trade between here and Bourke to a very great extent.
4511. We are also inquiring into a proposal for the construction of a railway from Cobar to Wilcannia: presuming that that railway were constructed, and that the river were locked from Bourke as far as Menindie, do you think that Wilcannia would then become a centre which would draw the produce from places as low down as Menindie, out east and west, and concentrate it at Wilcannia for transport to Sydney? I do—including White Cliffs, which is a big place, and all the country round about there.
4512. Do you think that the main body of the outward trade of the river below Wilcannia would be concentrated at Wilcannia, for transport to Sydney, if the river were locked? Yes; I do.
4513. Have you had any experience in irrigation along the river? No, I have not; but at the time Colonel Home came through here I happened to be coming in from Broken Hill, and I came along with him from Lake Speculation, and we drove round Lake Menindie, and he reckoned that the soil and the formation of the country were really splendid, and that it would be very easy land to put water on. He said that if you were to "lock" Menindie Creek that would keep the water in Lake Menindie at one height, whereas now it runs in and goes straight out again, because the creek is almost on the same level as the lake.
4514. As the locking of the river will necessitate the expenditure of a large sum of money, it is only natural that the Government should look for some means of recouping themselves the interest on the cost of construction and the expense of maintenance;—do you think that a general due of 10s. per ton on inward and outward goods would be considered an excessive charge for the advantages of a permanently-navigable river? No; I do not. I think it would be a very fair charge. I have seen as much as £16 per ton paid from here to Wilcannia, and £30 per ton from here to Wentworth.
4515. Supposing that the river were locked from Bourke as far as Menindie, would the lower reaches of the river still offer, for certain or uncertain periods of time, the same obstructions to navigation as are now offered by the present river? The river below Menindie lasts longer than the river above it. Lake Menindie, being a large body of water flowing back into the river, keeps the water up longer between here and

- W. Maiden. and Wentworth; and Lake Cawndilla also empties into Lake Menindie, and, flowing into the Darling, increases the quantity of water going down the river.
- 6 Oct., 1899. 4516. But each of those would be above the lowest weir of the series? Yes. Lake Pamamaroo is also a very big lake, and all the water there runs back into the river. All these creeks are quite as deep as the river-bed itself; therefore, every drop of water that flows into them from the river goes back. Lake Pamamaroo is about 27 miles round, and is very deep.
4517. But if the level of the river were permanently raised above its bed, as it would be by these weirs, that source of water-supply for the lower reaches of the river would be cut off? Yes, it would.
4518. Do you think that, with the construction of locks and weirs as far as Menindie, the lower reaches of the river—below the lowest weir—would still offer serious obstacles to navigation? Yes, I think they would.
4519. And, therefore, this scheme, so far as regards providing a permanent means of intercourse with Sydney *via* Adelaide, or with Adelaide or Melbourne, is in that sense an incomplete one? Yes; if the water stopped flowing over the weir, of course it would be.
4520. Which do you think would offer the more advantages to the district around Menindie—a railway from Cobar to Wilcannia, or a river locked from Bourke as far as to Menindie? I think that the river locked down as far as Menindie would be the better.
4521. But you are still of the opinion that, if we had the river locked as far as Menindie, and if we had a railway from Cobar to Wilcannia, the locked river would probably act as a feeder to the railway system? Yes. I may say that some time ago 5,000 acres were laid aside for village settlement around Menindie, and a great number of people at Broken Hill were coming hither, as they thought the Government intended to put water on the land; but when they found that they would have to provide all kinds of machinery themselves, which they are not able to do, they did not come. I am sure that, if there were means of irrigation—providing the Government supplied water at fair rates—the land all round these lakes would be taken up by people from Broken Hill with families.
4522. You have had a good deal of experience as a stock raiser? Yes.
4523. As a practical stock-raiser, do you think it would pay to grow large fodder crops by means of irrigation along the Darling, as a means of insurance against loss of stock during periods of drought? I do.
4524. Does your answer include the insurance of the whole of the flocks, or merely valuable stud rams and large stock used at the station, such as horses? It would also include a portion of the ordinary flocks.
4525. You have heard the calculation set forth by the chairman of the quantity of food that would be required to feed a flock at so many pounds per day for each sheep? Yes; but the other day I was coming down on a steambot between here and Wilcannia and I met the steamer "Maggie" coming up, and she had on board 485 rams which were being taken from Echuca to Wilcannia. Being anxious to find out what it would take to feed a sheep, I asked the skipper how much it took for those rams every twenty-four hours, and he said that he was astonished. He said, "These rams have improved greatly on the way up, and all that they have had each day has been between six and seven or sometimes eight bags of chaff for the whole lot." Those sheep were full and looked splendid. They were rams going to a station behind Wilcannia called "Salisbury Downs." They had some bran, too, but they did not care much about it.
4526. *Mr. Shepherd.*] Did you calculate what weight that was for each ram? About half a pound each sheep per day.
4527. You say they improved on that? Yes. The sheep looked really well, and the skipper said that they had improved a great deal since they came on board.
4528. In cultivating (say) 100 acres with such crops as lucerne, maize, sorghum, or planter's friend, do you not think that it is quite feasible that sufficient could be grown in that way to keep the whole of the stock alive and prevent these fearful losses during a bad season? I am sure it could. That is the only chance the people have up here.
4529. *Mr. Dick.*] What is the ordinary freight for the carriage of chaff by the river? In bad seasons, when people want chaff most, it cannot be obtained sometimes. I have known people round about here having to pay as much as £8 or £10 per ton for the carriage of chaff. Even from Broken Hill the freight has been £5 or £6 per ton, on the top of railway charges; I myself have paid in Broken Hill £9 or £10 per ton, and £5 or £6 on that makes it very dear.
4530. Can we take it that the ordinary price of chaff delivered on stations along the river would be about £5 per ton? Yes; that is, with everything in its favour.
4531. Well, omitting the bran which those sheep consumed on the voyage, and presuming that ordinary flocks would require no more food than those sheep did, half a pound of chaff a day would be sufficient to keep a sheep alive? Yes, it would, according to what I was told.
4532. And that, with a flock of 50,000 sheep, and with chaff at £5 per ton, would mean about £45 a day to keep them alive? Yes.
4533. Do you think it would pay anyone to try that in seasons such as the one we have had recently? It is like this: perhaps a person would have to do it only for a week or fortnight, because, when rain comes along the routes, a man has a chance of taking the sheep away to other parts.
4534. Do you think the locking of the river would offer any facilities whatever for the transferring of starving stock to more favoured districts? I think it would, very much.
4535. In what direction? There are plenty of people who would send away fat sheep even, but the routes are so dry that it is impossible, there being no water and no feed. At other times they keep them too long, and the sheep get too weak to travel, and they really have to keep them on the station to die. If this river were locked, the sheep could be taken by barge and transferred to places inside, where their owners would have a chance of getting something for them.
4536. Take the district north of Wilcannia;—presuming that the river were locked, where could starving sheep from that district be sent to? They would go towards Sydney—to Orange and Dubbo, and other places.
4537. But do you know that all the available land in that part of the country is usually snapped up by the Riverina squatters? That would be the only chance—getting them away to other parts, which had better seasons.

4538. You still think that the locking of the river would afford a means of getting fat and other stock away? Yes. If fat stock could be taken away quickly, and did not have to travel over bad country, they would, of course, be landed in a better condition. W. Maiden.  
6 Oct., 1899.
4539. *Chairman.*] I understood you to say that you had had some experience in pastoral matters? Yes.
4540. In this Darling district, what do you think would be a fair number of sheep for a man to have, from which to get a fair living? If he could keep them, I think he could make a very good living out of 1,200 or 1,500 sheep.
4541. From the wool? From the wool and the sale of the increase. I am speaking only of the very small holders.
4542. A man could live on 1,200 to 1,500 sheep? He could. It would be equal to about £300 or £400 a year.
4543. What is a sheep worth per annum as a producing animal—for wool and lambs? Six or seven shillings, or perhaps more. It depends greatly on the increase. The small owners with only 1,200 or 1,500 sheep do a bit of dealing—buy and dispose of other sheep—and I am not counting that. They may make a few pounds in that way; sometimes they do not, but very often they do. The season has everything to do with the profit or loss.
4544. Do you think it is practicable, either for the small owner with his 1,200 or 1,500 sheep, or for the large holder with much larger flocks, to grow, by means of irrigated land, sufficient fodder to maintain his flocks in bad seasons? The small holder as a rule has not the means, and the big holder would have to reduce his numbers very much.
4545. But money is necessary for plant, pumping machinery, draining the land, and so on? Yes.
4546. It is rather an expensive handicap for a small holder to carry it on on any extensive scale, is it not? Yes. If water were laid on to the land for him, and he were assisted in that way, he could do it all right.

David Edwards, blacksmith, Menindie, sworn, and examined:—

4547. *Chairman.*] How long have you been here? Since 1881.
4548. Have you any other occupation besides that of a blacksmith? Yes; I am an insurance agent, and do an auctioneer's business. D. Edwards.  
6 Oct., 1899.
4549. But nothing connected with pastoral or agricultural pursuits? No.
4550. Have you given any attention to the proposal now before us? Not a great deal of attention; but I have always considered it desirable that we should have a permanent river for the purpose of traffic, and also for irrigation purposes.
4551. From a traffic point of view, seeing that the expenditure would fall on this Colony, how do you think the locking of the river would benefit the revenue of the Colony? I think the revenue of the Colony would not suffer in any way through the river being locked.
4552. But, seeing that £500,000 is the estimated expenditure, what would New South Wales get, either directly or indirectly, from the outlay of that sum of money? I understand that tolls would be levied on all freight carried on the river, and therefore the revenue would be increased instead of being diminished.
4553. Do you think that the locking of the river would be the means of inducing a closer settlement of people in this part of the country? Yes, I have no doubt it would. If the river were locked and water were conserved, I think settlers, from Broken Hill especially, would come to reside here and produce food-stuff for Broken Hill.
4554. From your long knowledge of the district, do you think that the want of a regular water-supply is the one great drawback to this part of the country? It is not the one drawback, but it is an exceedingly great one.
4555. It would seem to a stranger that the great desideratum is to increase in some way the producing power of this vast waste, as it presents itself at present? Yes, and the producing power of the district would be increased by the locking of the river. Irrigation which would be possible then is almost impossible now, through the river having such a rise and fall; but if the river were always kept at a certain height, irrigation would be much more simple, and small holders could irrigate, whereas now they could not.
4556. Have you seen the river at Menindie at a very low ebb? I have seen it down to summer level.
4557. What depth would that be? Just at Menindie there would be 10 or 12 feet.
4558. But there is a deep pool here? Yes. It extends a few miles—a very large and deep pool.
4559. But we have been told that, higher up, the river has been absolutely dry, except for small holes here and there;—does that ever happen here? I have never known it to be dry since I have been upon it—since 1875. It may have been dry, but it has not come under my observation.
4560. If the river were locked, and irrigation and cultivation took place to a great extent, where would be the market for the produce? Without railway communication to Broken Hill there would practically be no market—the one depends upon the other; but with railway communication with Broken Hill there would be always a permanent market, and I feel sure that the producers on the river could compete most favourably with the South Australian producers.
4561. Then, as regards Menindie and its surroundings, we may look to Broken Hill as the natural outlet for the bulk of the produce that could be grown here? Yes, I think so.
4562. We have been told that there is a great deal of timber here that would be consumed in Broken Hill? There is an immense amount of timber here lying ready on the ground; whereas, when I was in Broken Hill a month ago, I was told that the people there were paying from 23s. to 28s. per ton for firewood, and even then there was a great scarcity of wood, and it was almost unobtainable from South Australia.
4563. Looking at the question of the future of Menindie, it would seem that connection by railway with Broken Hill is the first necessity? Yes, it is; but I think that it would be a far greater advantage to Broken Hill to be connected with Menindie than it would be to Menindie to be connected with Broken Hill.
4564. In what way? As a sanitarium for their invalided population. They have no convenient place to which they can go now. If they want to make a trip in the summer for recreation purposes, they have to go to South Australia; and I am sure that if we had railway communication with Broken Hill an enormous number of people from Broken Hill would pay our township a visit. Railway communication, to be of benefit

- D. Edwards. benefit to Broken Hill, must necessarily come to Menindie, it being such a short distance from Broken Hill, compared with other places, the distance being only between 60 and 70 miles.
- 6 Oct., 1899. 4565. Can you give us any more information about locking the river? No, except that I think it would benefit the settlers below Menindie as much as those above Menindie, for I feel sure that they would be able to send their produce even beyond Wentworth. When the river is in flood the Murray is backed up to a distance of 40 miles, and, with these lakes acting as reservoirs for supplying the river, I think navigation could be carried on pretty well continuously, and produce could be sent as far down the river as Wentworth, and compete favourably with South Australian produce.
4566. You seem to have studied the question more from a local point of view than from a general point of view, as regards the locking of the whole of the Darling? Yes, principally from a local point of view.
4567. Do you agree with former witnesses that there is a vast area of land about here suitable for agriculture by means of irrigation, and which is above flood level? The quantity is practically unlimited.
4568. Will you state why, in your opinion, crop-growing has not been engaged in more than it has been, up to the present time? The want of a market; there is no market. Supposing that crops were produced here under very favourable circumstances, people could not dispose of them.
4569. Speaking of Menindie as an outlet for Broken Hill, do you look upon this as a healthy climate? Most healthy; that is my reason for having remained here. Otherwise, I should have settled in Broken Hill some years ago. Having a family growing up I thought it better to remain here than go to Broken Hill, although, perhaps, I might have made more money there than here. I can manage to make a living here, and I thought that it was better to do that than go to Broken Hill and risk the health of my wife and family there.

John Hugh Gordon, homestead lessee, Box Tank, near Menindie, sworn, and examined;—

- J. H. Gordon. 4570. *Mr. Watson.*] How far is your place from Menindie? Twenty miles, towards Broken Hill.
- 6 Oct., 1899. 4571. Have you been long on your holding? Six years.
4572. Prior to that were you a resident of this part of the country? I have been in this district ever since 1866.
4573. Have you any land in addition to your own homestead lease? I am subleasing another homestead lease.
4574. That gives you a total of 20,000 acres? Yes.
4575. What stock have you been carrying on that area during ordinary seasons? About 1,500 sheep on each place.
4576. Ordinarily, you would have 3,000 sheep on the two blocks? Yes.
4577. What have you at the present time? I am now reduced to about 800 or 900. The others have died in the bad seasons.
4578. Have you any market for fat stock? Yes; Broken Hill.
4579. How far are you from Broken Hill? Box Tank is 45 miles, and the block I sublease about 53 miles, from Broken Hill.
4580. So, in having a market for fat stock, you are in a slightly better position than lessees on the river frontage would be? Yes.
4581. Do you find that is a considerable help to you? Yes.
4582. Do you think it is possible for a man to make a living off a 10,000-acre block, situated as yours is? It is not enough.
4583. Are there any homestead lessees who are able to make a living off one block of 10,000 acres, or do many of them follow your example and sublease from other people? There are plenty of them who are living on 10,000 acres; but they have really been going back—doing no good—the way the seasons have been. If the seasons were good, I have no doubt that they could manage to struggle along on 10,000 acres.
4584. I suppose, in view of the history of this part of the country, it would be rather unreasonable to expect a constant succession of good seasons—you must be prepared for a fair number of bad seasons? Yes.
4585. So I should imagine that, in cutting up land with a view to settlement, you would require to allow a sufficient margin to allow of a man making a living right through? Yes.
4586. How do you think the locking of the river will affect the homestead lessees in and around the district? I think it will assist them greatly. It will give them access to some places to which they have not access now, because of the river rising and falling so quickly as it does. If they were to have a permanent river they would have an outlet for their wool, and it would also enable them to get provisions.
4587. I understand that supplies are exceedingly dear occasionally owing to the lack of communication? Yes, they are very dear. I have known flour to be £20 per ton here.
4588. For any considerable length of time? Yes.
4589. Was that recently or a considerable while ago? In 1886 or 1887, I think it was. I have known carriage from Wentworth to Menindie to be £30 per ton.
4590. You mean, I suppose, that the goods were brought by river to Wentworth, and by team from there? Yes.
4591. And the teamsters charged £30 per ton? Yes.
4592. There being no feed or water on the route? Yes, for a long distance.
4593. Has there been any difficulty of late in the way of securing supplies? Not since Broken Hill started. Of course we have to pay the extra carriage between there and here.
4594. What does that amount to? It runs from £4 to £6 per ton.
4595. In addition to what it cost to get the goods to Broken Hill, you have paid £4 or £6 per ton to bring them on to Menindie? Yes.
4596. That would mean a pretty heavy total charge in the way of freight? Yes.
4597. Has there been any difficulty in getting wool away? Sometimes. Sometimes it has to be stored on the river for twelve months in some places.
4598. To a man with small capital, that is a considerable disadvantage? Yes, unless he carries it by team from here to Broken Hill, which makes the carriage very expensive, including the railway carriage at the other end.



4599. It is proposed, as you are probably aware, to construct these locks between Bourke and Menindie, and it has been suggested that if that were done a considerable portion of the trade that now goes to South Australia and Victoria, *via* the river, might be attracted to the railway at Bourke, or any future extension of the railway system towards Wilcannia;—do you think there is anything in that suggestion? I have no doubt it would. People here would sooner pay extra freight to have a permanent river than take the chances they have to take now. We have frequently to wait for a rise in the river a long while, and perhaps the boats just get enough water to come up this far and then get stuck. If they do happen to get down, then the freight is so much that it comes very hard on people. They would sooner pay a little extra for regular carriage, for it would really be cheaper for them in the end.

J. H. Gordon.  
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4600. Having regular and constant communication, it would be worth their while to pay a little extra? Yes.

4601. From the point of view of irrigation, supposing a considerable quantity of water to be stored in the river, do you think that the locking of the river would be of any material advantage to the homestead lessees along the river frontages? Yes, not only along the river frontages but also out back where the lakes are. There is any quantity of country round these lakes, which could be made use of if there were water permanently in the lakes. There is all the country out towards Bullabulka, about 40 miles from the river.

4602. There is country fit for irrigation there? Yes; it is beautiful country.

4603. But would it not require a very high river to fill those lakes? No water goes out to them unless the river is high—unless there is really a flood.

4604. The river would require to be pretty well a banker I presume? Yes, a banker.

4605. The scheme at present under consideration does not contemplate the raising of the river so high as the banks, consequently a number of those lakes would not be filled by this scheme alone? No, they would not.

4606. I suppose you were going on the assumption that, with a considerable body of water permanently in the bed of the river, the watercourses communicating with the lakes would be filled sooner by a moderate flood, perhaps, than by a much higher one under other conditions? Yes; that is what I thought.

4607. When the lakes that you have mentioned are full, are they of any great depth? Very deep. There is then as much as 20 or even 25 feet of water in them.

4608. That would stand evaporation for a considerable time? Yes. When full, I suppose Bullabulka Lake would have five years' water in it. There is also Victoria Lake.

4609. Is that near Bullabulka? It is 40 or 50 miles from the river.

4610. Any connection with Bullabulka? It is within a few miles of Bullabulka.

4611. And fed by the same watercourse or intake from the river? It leaves the river in one channel, and branches off into other channels.

4612. And you say that around a number of those lakes there is land that is suitable for irrigation? Yes.

4613. Above flood-level? Yes.

4614. And with good soil? Yes.

4615. We have heard fears expressed by some people to the effect that, if the weiring of the river were carried to a greater height than 10 or 12 feet, it would result in the flooding of the surrounding country to such an extent that there would be claims for damages;—do you think there is any possibility of that occurring? No.

4616. It is, rather, more likely that the people would be glad of the water coming over the country? Yes; they would, indeed.

4617. That is, so far as low-lying country is concerned? Yes.

4618. I understand that you are favourable to the construction of the locks and weirs? Yes; I am, indeed.

4619. Do you think there would be any possibility of the Government recouping itself to any extent for the expenditure incurred, which is estimated to come to about £500,000, in addition to the annual cost for maintenance, which would be about £20,000? I have no hesitation in saying that it would connect us with Sydney, and a lot of the produce of this part of the country would go to Sydney.

4620. Of what character? Almost everything sent from this part, I think, would go to Sydney if there were a connection.

4621. Do you think that the wool would? Yes, wool and other things; and supplies would be brought back.

4622. Do you think that the people could, for the certainty of regular communication, afford to pay something in the way of a toll upon the goods that were carried on the river? Yes; I think it would suit everyone in this part of the country to pay something extra on the carriage.

4623. Of course, the probability is that with regular communication the steamers could do the work more cheaply than they do at the present time? Yes.

4624. And that any toll that was imposed would probably not be more than the difference between present rates and the cheaper rate at which the work could then be done? Quite so.

4625. You think that there would be no difficulty in collecting a reasonable toll? Yes.

4626. Reverting to the question of the maximum area of homestead leases, what do you think would be a fair area for a homestead lease with this character of country? Twenty thousand acres, I think.

4627. At present the maximum area is 10,000 acres? Yes.

4628. You think that an area of 20,000 acres is as little as a man can make a living upon? Yes—that is, taking one season with another.

4629. What is the term of the tenure of your homestead lease? Twenty-eight years.

4630. Do you think that is sufficient to encourage a man to take up land, if the area were large enough? Yes.

4631. Some of the larger holders along the river seem to be of the opinion that a term of twenty-eight years is not long enough for their holdings, and they have indicated that greater improvements would be made if a considerable extension of the term of tenure were allowed them;—do you think there is any necessity for that? I have never heard of any complaint about the length of the term, but about the quantity of land; I have heard a lot of complaints about the smallness of the holdings. I think that twenty-eight years is a fair term.

4632. Taking into account the fact that the holdings on the river frontages usually have water in plenty for stock, and the usual characteristics in the way of herbage and grass,—do you think that the holdings on the river frontages, looked at all round, are superior to the back blocks? No; the back blocks are superior to the river frontages.

4633.

- J. H. Gordon, 4633. Why is that? There is better country there all through. There is not so much of the black ground or of flood-ground, and there are salt-bush, mulga-scrub, and lots of things which are not to be found on the river frontages.
- 6 Oct., 1899. 4634. So your experience is that the higher ground carrying herbage is better than the flood-ground which occasionally has heavy crops of grass? Yes.
4635. It would seem, then, that the idea some people have that the river-frontage holdings are especially valuable is not correct as applied to the country round about there? No, it is not.
4636. Therefore, in respect to the river frontage holdings, equally with the country further back, a homestead lessee would, you think, require 20,000 acres? Yes.
4637. Taking generally the country to which we have been referring, do you think that your own block of 10,000 acres, on which you said you ordinarily carry about 1,500 sheep, may be taken as a fair criterion of the rest of the land? Yes, a very fair one.
4638. So we should be justified in assuming that that would be a reasonable number of sheep to put on any 10,000-acre block? Yes—that is, to keep them in good condition, and taking one season with another.
4639. And that number of sheep is rather few for a man to make a living from? Too few.
4640. So everything seems to point to the desirability of giving a man a larger area if he is to do any good for himself and the country? Yes.
4641. *Mr. Shepherd.*] Have you tried any cultivation? None whatever.
4642. You are satisfied that the land is suitable for it? Yes.
4643. With regard to the water in these lakes, you say that when once full a lake would have about a five years' supply? Yes.
4644. These lakes, then, are not situated similarly to Lake Menindie? No; the water is confined.
4645. The lakes to which you have referred are of considerable depth, and when once filled they will remain full for some time? Yes. Of course, Lake Menindie rises and falls with the river, and so does Lake Cawndilla.
4646. How many sheep have you on your holding now? Eight hundred or 900. I generally have about 1,500.
4647. Are they in fairly good condition? Yes, they are.
4648. Have you been scrub-feeding them? No; all natural food.
4649. What kinds of grasses or herbage, besides salt-bush, have you? Spear-grass, principally.
4650. Have you any Mitchell-grass? No.
4651. Have you cut any scrub at all for the sheep? No.
4652. Have you any other grasses or herbage besides the spear-grass or the salt-bush? Not generally; but other herbage sometimes comes up after a rainfall.
4653. Do you know the names of any of the herbs besides the salt-bush? Spinach. That is the only other thing that grows out my way.
4654. In a fairly good season, what do you consider your holding is fairly capable of carrying? In a fairly good season 2,000 sheep would not be too many; but at present, and as the seasons have been, lately, 1,500 is quite enough for a block to carry.
4655. You have not suffered, then, to the same extent as the station-holders near the river? Not in losses.
4656. Do you think that if the river were locked these small holdings would be more likely to be taken up than they are now? I think so.
4657. You think that that would offer greater facilities for the smaller holders to work upon? Yes.
4658. Can you explain why you think that that would be the case? For the simple reason of the connection; that is the principal thing.
4659. Do you think there is a disposition to resort to irrigation for the purpose of assisting stock;—have you considered the matter yourself at all? I do not know much about irrigation and hand-feeding stock. I have not had anything to do with it.
4660. I suppose you realise the fact that if seasons such as you have experienced for the last four or five years were to continue, stock-owners would be obliged to resort to some different means of feeding their sheep? They would be obliged to do something—in a small way, I should think.
4661. Have you not taken the matter into consideration at all? No, I have not. It is a matter I cannot speak about.
4662. *Chairman.*] If it came to the position that you either had to prepare land, and sow it for the purpose of feeding your flocks, or clear out of the district, which alternative would you take do you think? It depends on the water part of the question. I would sooner cultivate and feed the stock, if I had the necessary water. The land is quite good enough to grow anything if it gets water.
4663. But where you are you say that that is out of the question—you are too far from the river? Yes; there is no water supply there for that kind of thing. That could be done only on or near the river.
4664. Therefore, for people away from the river banks any distance, it is not feasible to grow fodder for the stock? Not any great distance; but there are many lakes about here, and they run away out back, and there is plenty of land there that could be made use of.
4665. You generally have about 3,000 sheep; do you think that, if the grass and herbage were to fail altogether, it would be practicable, and would pay you, to grow crops to feed those 3,000 sheep? That is a matter I have never had anything to do with, and therefore I cannot answer the question.
4666. *Mr. Watson.*] What rental are you paying to the Government for your block of 10,000 acres? £32 per annum, or equal to about three farthings per acre per annum.
4667. How does that compare with the rental paid by the pastoral company whose land adjoins yours? I know we are paying more than they do; but I am not quite sure as to the amount which they are paying.
4668. What holding is it that you are on? Kinchega. I believe that Kinchega is paying under one halfpenny an acre per annum for their land.
4669. *Chairman.*] Have they not a great deal of river frontage? No, not a great deal; but what they have is about the best here—it is high ground. There are sandhills which run right into the river.
4670. *Mr. Shepherd.*] How long does the New Zealand spinach last? One good hot wind destroys it.
4671. It grows very rapidly, of course, after rain? Yes.
4672. Do you find that it comes up any time in the year after a shower of rain? Any time, almost.
4673. Do the sheep fatten well on that spinach? Yes; it is very good food for them.

Harry Webb, manager, "West End Hotel," Menindie, sworn, and examined:—

H. Webb.

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4674. *Chairman.*] How long have you been in Menindie? Ever since 1887.
4675. Have you found that the district and Menindie itself suffer by reason of uncertainty of communication with places with which you do business? Yes, suffer a good deal.
4676. Has the delay in the delivery of goods to people at Menindie often been of a marked character? Yes.
4677. Where do you get your goods from? Principally from Adelaide by river, simply because it is the most convenient, although very often there is great delay on the river. We have sometimes got goods from Sydney.
4678. What do you pay, as a rule, for the carriage of inward goods by the river? With a good river you will get it at about £2 per ton, but with a river like the present it will sometimes cost you £4, and sometimes even £5.
4679. At the present time you are getting it at from £2 to £2 5s.? Yes.
4680. If this scheme were carried out, and a toll were put on at Wentworth, you would not get your goods brought by railway either to Wilcannia or to Bourke, and thence by river to Menindie, at as low a rate as that? No; I do not think we should.
4681. If you would have to pay a higher rate from Sydney *via* Bourke or Wilcannia, and you could at the same time get a river, I suppose you would still stick to the river? Yes. If the river were locked and the land were settled upon, we should have more facilities for doing business, and, perhaps, be in a better position to pay more for carriage; but there is no doubt that we would always stick to the cheapest.
4682. Having been in Menindie for some years, do you agree with the other residents that communication with Broken Hill by railway would be a good thing for both Broken Hill and Menindie? Yes. I do think it would be a splendid thing for both places.
4683. The two places seem to be allied in various ways, and require communication between them? Yes.
4684. Looking at the question as you do, mostly from a local point of view, do you think that that is a great necessity for these places? Yes, I do. It is almost an absolute necessity to have that railway in conjunction with the locking of the river. Then I think the district would be very prosperous. We could then help ourselves a little, although, of course, the principal thing that we want is rain.
4685. During the last four or five years, when you have suffered so much from drought, have the town and the surrounding districts suffered in very many ways? Yes, they have.
4686. With a good season the district had good prospects, had it not? Yes.
4687. You had a very elaborate and costly meat-preserving establishment erected and in full swing? Yes.
4688. But the continuous drought has paralysed that, and caused it to shut up? Yes. In a good season it employs from 100 to 150 men. At the present time it is closed, owing to the want of sheep; but even if they had the sheep to boil down and the tallow rendered, they could not send it away sometimes, because there is frequently no river.
4689. Do you agree with the statement that, with a railway to Broken Hill, the growing of vegetables and other supplies in this district would be largely taken in hand, with the aid of irrigation, and the produce would be sent to Broken Hill? Yes, I do. I think it would be taken in hand by a great many people, mostly in a small way. It would give employment to a lot of families, and keep the money in the district.
4690. You think that, with the advantages of railway communication with Broken Hill, and with plenty of water for irrigation, owing to the locking of the river, a large population would be settled here, and the progress of the district would be greatly advanced? Yes. I think that not only the district, but also the Colony would be greatly benefited.

Robert Scobie, saddler, Menindie, sworn, and examined:—

R. Scobie.

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4691. *Mr. Dick.*] How long have you been here? I have resided twenty years on the Darling.
4692. Will you make a general statement as to what you think would be the effect of locking the river, as proposed, from Bourke to Menindie, its effect on the district, the course of trade, and in any other respects in which you think the carrying out of the project would have any material effect? I should like to begin by saying that I lived for six years in India, where I saw the benefits resulting from irrigation. I consider that the locking of the river Darling, from Bourke to Menindie, would cause settlement in the valley of the Darling on an exact system, whereas now it is simply a gambling with nature. All kinds of horse-fodder are grown on the river now, without irrigation. Eight thousand acres of wheaten crop were cultivated last season around Wentworth. Above that point I know personally two homestead lessees who have continuously cropped, one 800 acres, and the other 700 acres, year after year, consecutively, without any loss. No irrigation was used to grow these crops. Last year the man who cultivates the 700 acres realised, I believe, £700 out of the quantity of chaff that he disposed of, besides having several thousand bushels of wheat and a large quantity of chaff left for his own requirements. The question then is, if horse-feed can be largely grown on the holdings on the Darling River frontages, will the holders of the State lands from 50 to 200 miles back from the river be more cheaply supplied then, by means of horse-teams, with rations, horse-feed, and everything required for the development of those large pastoral holdings, which, on account of their distance from the water frontages, and the difficulty of making water on them, are really not accessible to the smaller pastoralist—the homestead lessee. For instance, at Langawirra station, the manager, about 1890, put in a crop which, when reaped, cost something like £2 per ton; freight from Wilcannia at that time being £12 per ton. The saving at once becomes obvious. It may be said that the traffic would go down the river if the river were locked. I do not concur at all in that opinion. Grog in bulk—spirits and wines—can be purchased as cheaply now in Wilcannia, rail and river borne from Sydney, as they can in Adelaide. I base that statement on invoices which local publicans have shown to me. In regard to cultivation on the Darling, there is one point which I have not heard alluded to to-day—root cultivation. The cultivation of turnips was first introduced into Great Britain 100 years ago. Since then, by means of root culture, although the grazing lands are considerably contracted in area, the grazing lands now carry three times the quantity of stock they ever carried before. In Lake Menindie we have, in round figures, 40,000 acres of land, and adjacent to that is an irrigation settlement, 12 miles from Menindie. When Mr. Copeland dedicated an irrigation reserve there, the idea was to irrigate it from Lake Menindie by

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by pumping; and the calculation was that it would take 1 foot of the quantity of water contained in the area of the lake to water 61,000 acres of land, giving it three waterings per annum. At Mildura, on by no means such good land as we have locally, tons of lucerne have been grown to the acre. Similar results could be secured here; that is a certainty. Fifty miles in a direct line north-west we have the largest population, but one, established out of Sydney, namely, at Broken Hill. All their food supplies are drawn from a point 350 miles distant. In 1891 the residents of Menindie sent a deputation to interview the Sectional Committee then taking evidence in regard to the Cobar-Broken Hill railway scheme. We then asked for a connection with that line of railway, on the Glenlyon country. At that time, firewood could be got at "The Hill" for about 10s. per ton. The last time that evidence was taken in Menindie in regard to railway connection with the Barrier districts, namely, in 1896, the price of firewood was 20s. per ton. It is now as high as 30s. per ton, and it is very difficult to get. Prosecutions are of daily occurrence on "The Hill" of wood-carters who are now rooting up the country to obtain the boree roots, thereby destroying the natural formation of the soil, to the detriment of the homestead lessees who are renting the country—a proceeding, in my opinion, contrary to justice on the part of the State now leasing them the land. In regard to the lakes which exist along this river, I will deal first with those on the left, or what I may call the eastern, bank of the river. There is, first, Terryawinnia Lake, which, when full, is a large inland sea. This lake is filled from an inlet called Terryawinnia Creek. In a bend of this creek, the three pastoral holdings of Terryawinnia, Albemarle, and Tolarno, at a cost of £10,000, constructed a dam to throw the water into this lake, prior to its passing on to fill Lakes Victoria and Bullabulka and a host of minor lakes and small creeks. Bullabulka Lake presents the appearance, from its water-worn shores, of having at one time been filled from a considerably higher level. Now, the Talyawalka Creek takes out of the Darling, at a point considerably above Wilcannia. It then works its way round, and flows into the Darling, and then goes out again. Bullabulka has at one time been filled from a considerably higher level, and, looking at the levels on the plan, and the diagram of the locks, it is perfectly plain that, if Lake Bullabulka were made to fill from a higher mouth, an ordinary flood would send the water out to those lakes. Victoria Lake, distant from Menindie about 50 miles due east, is about 40 feet deep. Lake Bullabulka is generally spoken of as being about 27 feet deep. In addition to that there is a lake called Sayers' Lake, which takes the flood-water of the Darling due east for a distance of 70 and odd miles. I fancy that when the water was about 27 feet high in the river it would be entering Bullabulka Lake, and by that time it would have filled Terryawinnia and Victoria Lakes. I have heard it stated that, were the river locked, steps would be taken to fill those three lakes, by means of pumping appliances erected on the lower inlet of the Talyawalka Creek. There are innumerable smaller lakes, each capable of containing a large body of water, but I want to point out that Sayers' Lake was one time spoken of as to be connected by a canal, a distance of 177 miles, with the head of Willandra Creek, which comes west 100 miles, giving 300 miles of water frontage—the proposal being to send the flood-waters of the Darling down in that direction to feed the Lachlan, which, since the erection of the weir at Willandra Creek, has dwindled down to a stream of no importance. On the western side of the river Darling there are eight lakes between Wilcannia and the site where the last weir is proposed to be constructed. All those lakes are good holding lakes, and when full contain a considerable quantity of water. Questions have been asked relative to the flood-waters spreading over the banks of the river. The result of my observations is that the water first makes back up the creeks, then it rises in each creek, and at its inland end floods the surrounding country until the water makes back to the river again, where it joins the main stream. On the ground opposite to Menindie there is a house now standing which was never reached by the water in the flood of 1890, and a dam of about 3 feet or 4 feet high would have kept the water in the channel, and prevented inundation of a large tract of country which was inspected, by Mr. Bruncker's instructions, in 1889, with a view to the formation of small homesteads which I was then applying for. I applied for an area of 5,000 acres, which could be irrigated throughout its entire extent by gravitation if the river were at that height. Two years ago the bed of Pamamarroo Lake was granted as an improvement lease to the boiling-down company at Menindie, with the right of constructing dams, culverts, and everything else necessary for an irrigation settlement. My idea is that such a course of action in dealing with Lake Menindie would result in a complete success; and as the bed of the lake contains, in round numbers, 40,000 acres, it would give ample room for the initiation of irrigation on the Lower Darling. I consider that it would be desirable to raise the last weir to a sufficient height to convey the water along Menindie Creek into Lake Menindie. I am aware, from personal observation, that all kinds of fruits and vegetables can be profitably grown on the Darling. If the proposed locking of the Darling were accomplished, people would avail themselves of the readiest and most regular means of transit, which would doubtless be up the river. No business man would allow several thousand pounds' worth of wool or other produce to lie from eight to twelve months on the banks of the Darling when he could avail himself of the regular water-carriage to send it to a point where it could be immediately placed on a market. The most beneficial result which I would expect to accrue from the carrying out of the scheme that you have under consideration would be the settlement of thousands of people on the lands of the Darling valley, owing to the assured nature of the country when permanent means of communication were offered for the sale of their produce. If the locking of the Darling were to succeed in settling an industrial lot of agriculturists on the adjoining lands, horse-feed would be procurable at such reasonable rates that the cost of carriage to the pastoral holdings in the area that is known as the north-west corner would come down to the extent of from 40 to 60 per cent. By no means could it ever be brought down except by the locking of the Darling.

4693. You do not think, then, that with a permanently-locked river, fodder could be brought up from districts where the natural rainfall is sufficient to grow it cheaply, in competition against the locally-grown fodder? I do not think so.

4694. Presuming that, after the accomplishment of Federation, the river were locked below Menindie, and you had the whole course of the river from Bourke down to its entrance permanently navigable, do you think that then the locally-grown horse-fodder could be procured as cheaply as that from other more favoured districts? I think so, considering the cost of carriage from places at a distance.

4695. Can you offer an opinion as to how many seasons, out of (say) twenty, people in this district could get a crop? Well, the area is so large that what one man would lose another must make. The rainfall is very patchy. A few days ago 4 inches of rain fell at Sayers' Lake, and it is not many weeks since we had 35 points in Menindie, and a few points only at Lake Speculation.

4696. *Mr. Watson.*] Do you think that anyone would be justified in putting in a crop near here and trusting to the natural rainfall, with the view of making a living in that way? The homestead lessees are making a living out of sheep.

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4697. But that is not cultivation? That is certainly not cultivation. A person living on agriculture alone would not be justified in starting to grow a wheat crop without irrigation.

4698. Do you think that, with a good water supply, there would be a considerable number of people who would be able to successfully irrigate? Yes. Our experience on the Darling is, that when the water is spread abroad we have a greater and more copious rainfall, and if we do not get a rainfall we get a heavy dew, because of the quantity of water that presents itself for absorption. For the last five years it is allowed that the quantity of water evaporated from the soil by means of the trees and other vegetation, has been very much greater than the quantity of rain that has fallen in that time. The conservation of the immense body of water that would be conserved by the construction of these locks and weirs would have a beneficial effect on the adjacent country, because of the inducing of dews.

4699. *Mr. Dick.*] You said that, with the locking and weiring of the river, the homestead lessees would be placed in a better position? Yes; by the increased facilities they would enjoy for procuring their supplies and sending away their produce—the less expensive manner in which they would be able to conduct their work, owing to regularity of supplies.

4700. Would you, then, differ from the evidence which has been offered to us, that 10,000 acres is not sufficient for a homestead lessee in this district, even with a locked river? A 10,000-acre block of prime country is good enough; but when a man gets back from the river, away from permanent water, and has to make water on the country, he requires a concession in area—not in rental. No hard-and-fast rule can be applied to the pastoral lands of the Darling valley. There is a necessity for classification and survey, to insure that each settler shall get sufficient to carry a good number of sheep, and give him a proper living.

4701. *Chairman.*] Do you think that, to make any scheme for putting weirs in the river Darling effective, the weirs should be of such a height that the water would be diverted into Talyawalka Creek, and also into Menindie Creek? I think so. In regard to the question of the payment of a toll, I consider that the residents would be well able to afford to pay this toll out of the amount of money they would save by reason of the advantages conferred on them by the construction of these locks and weirs—that is, taking one season with another, and averaging it all round.

MONDAY, 9 OCTOBER, 1899.

[The Committee met at the Court-house, Wilcannia, at 11 a.m.]

Present:—

WILLIAM THOMAS DICK, Esq. (VICE-CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Duncan Sinclair, master of the steamer "Lancashire Lass," sworn, and examined:—

4702. *Mr. Watson.*] Are you a certificated master? Yes.

4703. How many years' experience have you had in trading on the river? Twenty-five.

4704. Have you found any great difficulty in the navigation of the river during the last few years? During the last few years we have found great difficulty in navigating the river, owing to snags being so prevalent in the water.

4705. Government employees are engaged at present in removing those obstructions? Yes, they are.

4706. And a portion of the river is now free from them? Yes, very free; a great improvement.

4707. Do you anticipate that that work will have to be done periodically—that is, will other snags take the place of those removed? Yes, at long terms.

4708. It will not have to be done very often? By no means.

4709. Can you give us any idea of the period during which, in the last five years, the river has been open to navigation? Altogether it has been open about twelve months in that period.

4710. Can you tell the Committee what freights you get from different points on the river down towards the South Australian railways? When the rivers are low we generally get from £2 to £3 per ton from Wilcannia down.

4711. That is when navigation is difficult? Yes, and when we cannot carry much.

4712. When there is a high river what do you get? From 25s. to 30s.; 25s. is the lowest I have ever known the freight to be; 30s. is about the standing rate with high water.

4713. That is between Wilcannia and Goolwa? Yes.

4714. I presume that, in addition to that, railway freight would have to be paid on the cargo from Goolwa to Adelaide? Yes. The railway freight runs from about 9s. to 17s., according to the class of goods.

4715. Would wool be held to be of a high class? Most of the wool goes out at Goolwa, and I think it goes for about 3s. per ton to Victor Harbour, and vessels call in there for it. It is only about 12 miles on the railway. Sometimes we are called upon specially to deliver at Morgan instead, if ships pass there; but most of our wool goes down to Victor Harbour.

4716. What effect do you think the locking of the river from Bourke down to Menindie would have in regard to the direction the goods would take, supposing there to be a railway at Bourke, as at present, and another at Wilcannia, now proposed to be made? I think that with a low river below Menindie, traffic would be attracted to the terminal points of the railway, and goods would also be distributed up and down the river from the railway termini.

4717. Assuming that the river were navigable right through—that is, as far as the Murray,—do you think that then the railway would be able to compete against the steamers for freightage? No.

4718. You think that if the river were navigable right through, the steamers would get all the heavy goods there were to carry? Yes, undoubtedly.

4719.

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- D. Sinclair. 4719. At present the wool from places between Bourke and Dunlop goes to the Bourke railway, does it not? Yes.
- 9 Oct., 1899. 4720. Assuming that the Federal Government were to complete the chain of locks and weirs between Bourke and Wentworth, do you think that the wool now carried *via* Bourke to Sydney from as far down the Darling as Dunlop would continue to go in that direction? No, I do not.
4721. You think it would go down the river? Yes; there would be nothing to prevent it.
4722. Why—because carriage that way would be the cheapest? Yes.
4723. Then, in your opinion the complete locking of the river would divert a certain proportion of the trade now accruing to the Bourke railway? Yes.
4724. And the river would continue to hold the traffic it now has, as against the proposed railway to Wilcannia? Yes, undoubtedly.
4725. So far as your knowledge goes, do the steamers carry much fodder up the river in times of drought, in the shape of chaff and such things? Yes. I traded here for nearly four years, during which we carried nothing but fodder—every trip a full load.
4726. From what point did you bring that fodder? Echuca, on the Murray.
4727. What freight did you get for that between Echuca and Wilcannia? We did not carry it as freighting. We bought and sold it, and the profit on our sales was equal to a freight of from 30s. to £7. That was in times of drought.
4728. You can hardly take that as a criterion of what freight would be? We never let any of the fodder go for less than the equivalent to a 30s. freight.
4729. Do you know if any steamers were, during that period, carrying on owners' account? Yes.
4730. What freight did they get? Thirty shillings. We made the common freight the lowest standard of profit.
4731. The distance between Dubbo and Wilcannia is 342 miles, and assuming that the proposed railway from Cobar to Wilcannia were constructed, and that people desired to bring fodder from Dubbo, the cost to them by railway would be about 10s. 6d. per ton;—at the rates now prevailing on the railway lines, do you think the steamers could compete against that? No, they could not compete against 10s. 6d. per ton.
4732. What do you think would be the lowest at which it would pay the steamer proprietors to bring fodder from Echuca to Wilcannia with a good river? £1.
4733. Even allowing you to get it in big cargoes? Yes.
4734. Supposing you had a 6-foot river all through, what loading could you carry, including barge loading? With a 6-foot river we could bring about 200 tons on the "Lancashire Lass," and her barge.
4735. And with your present strength of crew and other expenses, you think it would require £1 per ton to make it pay? Yes.
4736. The steamers are not in the habit of carrying live stock as freighting? No.
4737. So the locking of the river would not afford any outlet for fat stock? None whatever.
4738. It has been suggested that, in the event of the proposed locks and weirs being placed in the river, a certain toll might be imposed, with a view of recouping the Government, at any rate, a portion of the annual expense;—do you think it is a fair proposition that some toll should be imposed? If a toll were imposed it would certainly be added to the freight of the boat. The consumer would have to pay that. If there were no toll the freight would be so much less.
4739. Do you think that the advantage to the consumer would be sufficient to make it worth his while to pay the extra price involved in the payment of the toll? Yes, I think so.
4740. The Engineer-in-Chief for Harbours and Rivers expressed the opinion that it would not be necessary, if fixed weirs were used, to employ lock-keepers, he thinking that the crews of the steamers themselves could be relied upon to open and shut the locks, thus saving a certain amount in the expense of the maintenance of the works generally;—do you think that would be practicable? Yes; I think very practicable.
4741. The Engineer-in-Chief for Harbours and Rivers, in giving evidence, also said that the captains trading on the river might be licensed—that is, so as to have some guarantee of good faith—and each be trusted with a key with which the locks might be opened;—do you think that that would be sufficient in the way of convenience, so far as the steamer trade is concerned? Yes; I think it would be quite sufficient.
4742. You think the crew could always open and shut the locks? Yes; we had a system of that kind on the Goulburn River—we had to open and close all the bridges.
4743. They were lift-bridges? Yes.
4744. And the steamboat people had to lift and close those bridges themselves? Yes—go through and tie up, and come back and close the bridge.
4745. Were there any serious complaints in regard to inattention to details on the part of the steamer people? No.
4746. Always worked satisfactorily? Yes.
4747. So in this case you have no reason to anticipate there would be any trouble? No.
4748. The detention involved in the locking of a steamer and her barge would be somewhere between twenty minutes and half-an-hour for each locking;—do you think that that would be a matter of serious moment? No.
4749. The delay would not be important? No—hardly feel it.
4750. As to the size of the locks, it is proposed to make them 200 feet long by 37 feet wide; we are informed that 37 feet in width will be sufficient to admit all the steamers on the river now with the exception of one; do you think that 37 feet will be wide enough? Yes.
4751. And the length of 200 feet, it is estimated, will be sufficient to allow of a steamer and barge being locked at the same time; do you think that is satisfactory? Yes; I think that will be long enough.
4752. What is the length of the longest barge on the river? The length of my boat and barge now is a shade over 200 feet.
4753. That is cutting it very fine? They would have to overlap each other, and they could overlap a good bit.
4754. Are there any steamers and barges trading on the river the combined length of which is greater than your own? Yes. The steamer "Decoy" and barge, at present lying at Wilcannia, are together of greater length than my steamer and barge; but I think that 200 feet in the length of the lock would be sufficient to accommodate any steamer and barge. There would be nothing to spare; but I suppose that any steamer and

and barge would get through. However, with a view of meeting all requirements, I think it would be safer to make each of the locks at least 210 feet in length.

4755. It was originally proposed to make each of the locks only sufficiently long to take in a steamer or a barge separately;—do you think that the latter idea is the better one—the proposal to lock both together? Yes. In taking through one at a time the delay would be too great.

4756. You think that the greater expedition and convenience in locking is a matter to be considered? Yes. It would save an immense amount of time taking the two through together.

4757. You know that in connection with this scheme of locking the river there is also to be considered the possibility of irrigating areas of land along the banks of the river with the water that would be conserved by the locking and weiring of the river;—I understand that you, yourself, have had some experience in irrigating? Yes, a little.

4758. Do you think that there is any room for small irrigation settlements along the river banks if water were conserved in the river? Undoubtedly there is.

4759. Was your experience of irrigation in connection with land in any way similar to the land on the banks of the Darling? I have had a good deal of experience with land very similar to it.

4760. What was the outcome? I found that things would grow well, and it was a profitable scheme.

4761. Was your land subject to flood? No. It was all high land, above flood-level. Land of the same character as the Darling land yielded the heaviest and richest crops in our district—that is, black (lignum) ground.

4762. We have been informed at some points along the river that lignum ground is of no value;—that has not been your experience? It is of value. I have proved it to be good land.

4763. And you think there is a fair opportunity for a number of people to make a living by means of irrigation, if water be conserved in the river? Yes. If a man cannot make a living off 100 acres on the Darling it is his own fault—that is, if you provide him with water.

4764. *Vice-Chairman.*] Can you state in which direction the wool from the various stations on each side of the river, from Wilcannia to Menindie, is sent—that is, by river out of the Colony, or by rail through the Colony? By river, out of the Colony—the whole of the wool.

4765. *Mr. Shepherd.*] Is it usual for steamers to travel down the river at night? No, it is not usual.

4766. No matter what the state of the river is? Yes.

4767. You say that for five years the river has been navigable for only a little over two months per annum on the average? Yes, about that.

4768. What was the average before that—say, for the previous five years? I think it was from six to nine months a year for a good term before that.

4769. So the last five years have been exceptionally bad? Yes.

4770. Do you think that the locking of the river from Bourke to Menindie would assist navigation between Menindie and Wentworth? No.

4771. Do you not think that a good deal of water would escape and assist the river lower down? That little drop of water will be going down all the time, only just sufficient to keep life in the river—nothing to raise it.

4772. You do not think it would affect it to any appreciable extent? Not to any extent at all.

John Banks, Customs Officer, Wilcannia, sworn, and examined:—

4773. *Vice-Chairman.*] You hand in a statement showing inwards and outwards tonnage of shipping to and from Wentworth, with the approximate amount of cargo during the years 1893 to 1899 inclusive? Yes, as follows:—

COMPARATIVE Statement showing the Outward and Inward Traffic on the River Darling, from and to Wentworth, for the years 1893 to 1899 inclusive:—

Year.	From Wentworth.			To Wentworth.		
	Total Number of Steamers and Barges.	Total Registered Tonnage.	Approximated Tons of Cargo.	Total number of Steamers and Barges.	Total Registered Tonnage.	Approximated Tons of Cargo.
1893 .....	223	19,281	8,531	233	20,169	9,108
1894 .....	266	23,423	9,162	269	23,833	11,637
1895 .....	197	14,658	5,053	182	12,832	3,949
1896 .....	232	19,842	8,292	248	21,841	9,655
1897 .....	166	14,128	7,757	158	13,244	6,159
1898 .....	138	9,834	3,488	133	9,713	2,286
1899 (to 30th September)	98	8,382	4,327	96	7,702	3,273
Totals.....	1,320	109,548	46,610	1,319	109,384	46,067

4774. You also hand in a yearly statement showing the amount of goods entered at Wilcannia in bond during the years 1895 to 1899 inclusive, together with the amount of duties paid at Wilcannia in each from 1889 to 1899? Yes; as follows:—

STATEMENT showing Value of Goods passed through, and Duty collected at, Customs House, Wilcannia:—

Year.	Value.	Duty.	Year.	Value.	Duty.
	£	£ s. d.		£	£ s. d.
1889	.....	13,244 3 3	1895	28,864	10,426 4 1
1890	.....	15,938 15 5	1896	64,750	11,791 6 9
1891	.....	21,061 3 4	1897	44,680	9,957 10 5
1892	.....	17,264 13 4	1898	32,580	8,812 4 0
1893	.....	16,559 9 11	9 months ended		
1894	.....	14,130 7 6	30 September, 1899	25,944	4,742 2 1

D. Sinclair.  
9 Oct., 1899.

J. Banks.  
9 Oct., 1899.

- J. Banks. I may mention that these returns do not give the total amount of inward river-borne traffic, because many classes of goods do not come under the jurisdiction of the Customs Department at Wilcannia.
- 9 Oct., 1899. 4775. Can you supply the Committee with a statement showing the number of vessels engaged in hawking on the river which have reported at Wilcannia? Yes; as follows:—1896, 25; 1897, 14; 1898, 6; 1899, to 30th September, 4.
4776. Can you state what the average tonnage of these hawking vessels is? No; the papers do not show that.
4777. These vessels are engaged in bringing supplies to residents along the river, and in removing their produce? Yes.
4778. You have also some statistics referring to the cargo vessels on the river, which have reported at Wilcannia? Yes; as follows:—For 1896, 67; 1897, 37; 1898, 20; 1899, to 30th September, 20.
4779. Those returns show, since 1896, a diminishing amount of shipping per annum;—to what do you attribute this falling off? To the fact that the river has not been navigable during the greater portion of each year.
4780. Your returns do not include vessels trading from Wentworth direct to Bourke? No; they do not. Nor do they include any vessels trading from Bourke to Wilcannia.

TUESDAY, 10 OCTOBER, 1899.

[The Committee met at the Court-house, Wilcannia, at 9.30 a.m.]

Present:—

WILLIAM THOMAS DICK, Esq. (VICE-CHAIRMAN).

The Hon. PATRICK LINDESAY CRAWFORD SHEPHERD. | JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

Edmond O'Donnell, Mayor of Wilcannia, sworn, and examined:—

- E. O'Donnell. 4781. *Vice-Chairman.*] How long have you resided here? Over twenty years; about thirty years in the district altogether.
- 10 Oct., 1899. 4782. Presuming that a series of locks and weirs were constructed from Bourke to Menindie, can you state in general terms what changes would be brought about in the amount and the direction of the traffic? No, I cannot.
4783. Do you think that any of the stations below Bourke, which now send their wool to the Bourke railway for transmission to Sydney, would, if the river were made permanently navigable as far as Menindie, send their wool to Adelaide or to Melbourne? No, I do not think they would. I do not think it would make much difference to present arrangements.
4784. You are prepared, are you not, to furnish the Committee with certain statistics? Yes.
4785. Will you kindly read the statistics which you have had prepared concerning the municipality of Wilcannia? Yes; they are as follows:—

MUNICIPALITY OF WILCANNIA.

*Estimated Returns.*

Population—1,183.	Wharfs (2)—£1,700.
Dwellings, shops, &c.—231.	Metalled roads, 1 mile 4 chains—£1,680.
Capital value of the freehold of improved property—£100,500.	Formed roads, 1 mile 47 chains—£508.
Capital value of the freehold of unimproved property—£10,960.	Cleared and drained, 3 miles—£300.
Fair average gross rate of interest on freehold value, which buildings and dwellings are yielding—10 per cent. on capital value.	Cleared only—£60.
Estimated value of water-works, including mains—£10,000.	Footpaths, asphalted, 15 chains—£495.
	Do formed, 2 miles 70 chains—£232.
	Kerbing and guttering, stone, 1 mile 12 chains—£1,720.
	Culverts (2), wood—£120.
	Kerbing and guttering, wood, 70 chains—£280.

*Estimate of Receipts and Expenditure.*

Receipts: Ordinary rates—£432 2s. 3d.; water rates and assessments—£1,230; night fees—£280; total—£1,942 2s. 3d.	Expenditure: Average water-works, including interest to Government—£980; night-work—£160; general—£400; total—£1,540.
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4786. *Mr. Shepherd.*] Are you aware of the amount that the locks and weirs are estimated to cost? No.
4787. About £500,000; and for the maintenance and the labour alone is estimated to cost about £3,000 per year;—do you think that that expenditure for constructing these locks and weirs would be justified? Not at all, so far as Menindie. I do not think it would be of any good use at all to the general district. If the locks and weirs went only to Menindie, we should be only about as well off as we are now. If they started from Wentworth, and came up to here, it would be of benefit to us, but you are commencing at the wrong end. The present proposal is not worth the paper it is written on.
4788. But, if it started at Wentworth and came up to here, it would not be likely to be of benefit to New South Wales? I think it would benefit New South Wales. Any man getting his material to this place at a cheap rate, it is of benefit to him, and would benefit the Colony, no matter where it came from. It would help New South Wales more if it came from Sydney, no doubt; but, if any person can get what he requires brought to him cheaply, that benefits him, and thereby benefits the place and the district he lives in.
4789. But do you not think that, by facilitating the transmission of goods to Victoria and South Australia, a larger quantity would find its way to those colonies than is actually the case now? Yes, no doubt. But at the same time the money comes back, and we have the use of it. The mere fact of produce travelling through Victoria or South Australia *en route* to England is of no benefit to either of those colonies, with the exception of the railway freight on perhaps a few things, and the money paid there for reloading into other steamers. If I send 100 bales of wool to London it makes very little difference to Sydney or to Adelaide, whichever I may send through.
4790. It is generally thought that it makes a great deal of difference? But I do not think so.

4791.



4791. It is generally considered that in sending through Adelaide or Melbourne it is taking the trade away from New South Wales;—do you not regard it in that light? No, I do not. I do not think it is a great matter. E. O'Donnell.  
10 Oct., 1899.

4792. It is generally considered that taking trade to Victoria, or to South Australia, is, to a certain extent, robbing New South Wales of that trade? I have no doubt it is generally considered so; but if I send (say) 100 bales of wool from here to London *via* South Australia at a cost of £2 per ton, instead of sending it through Sydney at a cost of £5 per ton, I consider that this Colony, as well as myself, would benefit to the extent of £3 per ton.

4793. You mean the squatters would benefit to that extent? The squatters and this part of the Colony too—for to my knowledge nearly every penny which they get is spent here, and has been for the last twenty or thirty years.

4794. At all events, the Colony to which the goods are transmitted must to some extent benefit by it? There is no doubt of that.

4795. So the expenditure of this money in locking the river Darling would be at any rate to some extent in favour of South Australia and Victoria? There is not the slightest doubt it would to a certain extent; but I do not think it would to the same degree that some people think it would. This Colony would get the benefit of the money afterwards.

4796. What is your opinion generally about the locking of the river? I am very much afraid I am hardly able to give an opinion. I certainly do think that an extension of the railway from Sydney to this district would be far more beneficial in every way.

4797. But both these schemes are proposed? If I had my choice of the two, I would certainly take the railway.

4798. You think the railway is of much more consequence than the locking of the river? Yes. The locking of the river may come in course of years; but may take a long time. It would be very expensive; though I do not know exactly what the cost would be.

4799. *Mr. Watson.*] Admitting that the other colonies would benefit by this expenditure, to a certain extent, do you think it would be a proper thing to expect them to contribute something towards the cost of the works? I certainly think they ought to do so, but I doubt very much if they would. Some years ago we tried to start a steam navigation company in Wilcannia, and spent over £1,000 in surveying the Darling River from Bourke to Wentworth. Copies were taken of the plans of work done by the Government here. The original plans were burnt at the time the Garden Palace was burnt; but we have copies of them in the Commercial Bank yet. I think they cost between £400 and £500.

Alexander Munro, manager, Mount Murchison portion of Momba holding, sworn, and examined:—

4800. *Vice-Chairman.*] How many miles is Mount Murchison from Wilcannia? Eighteen miles by road, in a north-easterly direction. A. Munro.

4801. If a series of locks and weirs were constructed from Bourke to Menindie, as set forth in the plan, what do you think would be the effect upon the course of traffic along the river? Locking the river from Bourke to Menindie would, no doubt, send the trade to South Australia. 10 Oct., 1899.

4802. You think that even stations which now send their wool *via* Bourke to Sydney would, with such a system of locks and weirs, be induced to send their wool either to Melbourne or to Adelaide? Most certainly.

4803. Would the locking of the river from Bourke to Menindie remove the greater number of the objections which pastoralists now have to river navigation? Yes.

4804. Then you think that one of the effects of the locking of the river would be to reduce the earnings of the Bourke railway? Yes, certainly—that is, if the river were navigable from Menindie downwards.

4805. We have been assured by several witnesses, one of them being Mr. McKinney, of the Water Conservation Branch, that if the level of the river were permanently raised, as it would be under such a system of locks and weirs, pastoralists and others along the course of the river would be enabled to successfully prosecute irrigation, in the case of the pastoralists, for the purpose of growing fodder crops as an insurance against droughts;—do you think that such would be a result of the locking of the river from Bourke to Menindie? Possibly, by erecting locks and weirs sufficiently high to send the water over the back country.

4806. We have been assured by the Departmental experts in this matter that it is not practicable so to raise the level of the water by means of these locks and weirs as to send it over the back country? I do not think that irrigation under such circumstances is practicable except at very great expense.

4807. On what do you base that opinion? The land is not suitable.

4808. Which land? The land that would be irrigated by raising the water sufficiently high.

4809. You think, then, that the land on the immediate banks of the river is not suitable for irrigation? I do not think it is, except small areas by pumping.

4810. Do you think it is practicable for a pastoralist to irrigate (say) 300 acres by pumping, for the purpose of growing fodder crops? Yes; that is possible—small areas of 100, 200, or 300 acres.

4811. Do you think it would be more economical for a pastoralist to irrigate, from a locked river, 300 acres for the purpose of growing fodder, than to obtain his fodder by means of a railway to be constructed as far as Wilcannia without a locked river? It would be far cheaper to get it by rail than to grow it.

4812. In other words, you think that the river would not be able to compete against a railway in regard to the carriage of fodder and such produce inwards? I do not think it would be. Speaking from memory, I may say that I irrigated 37 acres close to Mount Murchison station, and I think the crop cost £2 15s. per ton to produce it.

4813. What kind of fodder was it? Wheaten hay; and the third season it cost nearly £4, the return being so small.

4814. To what do you attribute the falling off in that season? I think that the ground was not suitable. I selected a place where no levelling was required. It was simply a matter of making the drains, channels, and tanks; no levelling was done.

4815. Do you think that, if a railway from Cobar to Wilcannia were constructed, in preference to the locking of the river, much of the wool which now goes down the river to Adelaide or to Melbourne would be taken by that railway? If there were no locks and weirs, it must go to Sydney, I think.

- A. Munro.  
10 Oct., 1899.
4816. Even with a full river? Not with a full river, unless the wool were intended to catch some particular market; and then it would go by rail.
4817. The traffic, then, on a railway to Wilcannia would be of a somewhat fluctuating character? Yes; just according to the state of the river.
4818. A good deal of wool from Queensland comes into Wilcannia, does it not? Not much of it at present.
4819. If a railway were built to Wilcannia, in preference to the locking of the river, do you think that that would attract more of the Queensland wool to Wilcannia for carriage to Sydney? I do not think so. To get the Queensland wool even then you would require to have a line to Milparinka and Mount Browne. Wool that now finds its way to Broken Hill from Milparinka would find its way to Sydney, if there were a railway from Wilcannia to Milparinka.
4820. Is there not an advantage of 10 miles in favour of Wilcannia as compared with Broken Hill, from Milparinka? From Milparinka to Broken Hill the track is better watered.
4821. Then you do not think that wool which comes into this Colony at Milparinka would be attracted by the proposed railway from Cobar to Wilcannia if it were built? Possibly. A good deal would depend on the state of the roads between Milparinka and Broken Hill. If the track to Wilcannia were better the wool might be sent to Wilcannia in preference to Broken Hill. A good deal would depend on the seasons.
4822. *Mr. Shepherd.*] You said that you considered the land near the river not suitable for irrigation? There are suitable patches, but very small patches.
4823. Not of any extent? No.
4824. At a distance from the river there are suitable areas? Yes; but the expense would be too great to get water over that land, on account of the cost of levelling.
4825. You do not think that it would be possible to irrigate it by gravitation? I do not think so.
4826. But still the height to pump would be very slight indeed? If the locks were kept closed sufficiently long to send the water over the back country, too much country would be wasted—would be under water.
4827. So you think that irrigation on the Darling on a large scale is impracticable? Quite so.

Mark James Curry Tully, Inspector of Stock, Wilcannia, sworn, and examined:—

- M. J. C.  
Tully.  
10 Oct., 1899.
4828. *Mr. Shepherd.*] Have you prepared any returns? Only a few figures as to the surplus fat stock that have been sent away from the district during a number of years.
4829. Have you not a return showing the number of stock in the district? I can give you that from memory.
4830. During the last few years prior to the drought commencing, and also the number since the drought has set in? Four years ago the number of stock in the district was 1,500,000.
4831. Would you state the boundaries of the district you are giving these returns for? It extends to within 20 miles of Menindie down the river; 25 miles above Tilpa up the river; about 130 miles up to Paroo; 100 miles out along the Mount Browne road; about 100 miles direct west, and about 70 miles south.
4832. In that country four years ago there were 1,500,000 sheep? Yes.
4833. What is the number according to the last return? The number last December was 900,000.
4834. Has there been a gradual decrease or has the decrease taken leaps and jumps? It has been rather a gradual decrease year by year. In the first year the decrease was 300,000. In the next year it was 250,000, and the decrease has been more gradual in the last two years.
4835. So the largest loss was about three years ago? Yes.
4836. Have you ever considered the effect that the locking of the river would have in respect to the stockholders on the river? I have considered the matter of the locking of the river.
4837. Do you think that the locking of the river as proposed would be largely to their advantage? It would be to their advantage. It would be to everyone's advantage if the river were permanently navigable.
4838. That is the object of locking it, of course;—in what way would it be to their advantage? The only way that I should consider it would be of any advantage would be in the cheapening of the carriage of all heavy goods, including wool, of course.
4839. Have you given the subject of irrigation any consideration? Yes; I have considered it.
4840. What is your opinion as to the practicability of irrigating large blocks of land on the river, after the locking of the river? I do not think it would ever become a paying industry.
4841. Of course, the irrigation would always have to be carried out by a system of pumping? Yes.
4842. And you think it would be too expensive? Yes; it would be too expensive. The difference between a river of 6 feet or 8 feet, such as we now have in places, and 10 feet more of water, would be so little in the matter of pumping that it would not justify the expenditure of a large amount of money.
4843. But, if the river were locked, a larger quantity of water would be available; of course, not for irrigation purposes alone? Yes.
4844. Without the locking of the river, I presume that pumping for irrigation purposes would be almost impossible in some seasons? To a large extent it would be impossible.
4845. How long have you been resident in the district? Thirty-three years.
4846. How many times can you remember when the river has ceased running during that period? I cannot say positively how many; but it has ceased running entirely at least three or four times. When I first saw it, it was dry for miles.
4847. But, as a rule, there is some water running in it? Yes.
4848. Sufficient for irrigation purposes on a limited scale? Yes.
4849. Have you visited many of the small irrigation areas on the river—in some instances upwards of 20 acres? Yes; I have visited them.
4850. Have you generally found that the persons who are carrying on these irrigation schemes are satisfied with the result? No; I can mention some irrigation blocks which for two, three, four, or five years were irrigated constantly, and then thrown up in disgust, and nothing more done. They could not produce anything near the rate at which it could be purchased in ordinary seasons.
4851. Have you noticed the description of soil where these failures have occurred? Yes.
4852. What is the character of the soil? Principally black soil on the river flat.
4853. And the most successful irrigation is on the red sandy loam? Yes; but then, of course, the height to pump is greater. One point I may mention I have particularly thought out is that, in the event of the

the river being locked, presumably it would be navigable all the year round, and the river-carriage for produce would be then charged for at so low a rate that produce grown by irrigation could not possibly compete against produce grown under natural conditions, because produce can be grown under natural conditions at one-third of the cost at which it can be grown by irrigation, and, with the low rate of freight, produce grown under natural conditions could be delivered here much more cheaply than could produce grown by irrigation, even under the most favourable circumstances.

4854. So you think it would be cheaper to buy produce in the cheapest markets and bring it to here by water? I do.

4855. What effect do you think the locking of the river would have on the diversion of the traffic as at present;—do you think the river would be adopted generally in the event of its being locked and being permanently navigable? I think it would.

4856. In preference to the railway? I am not comparing it with a railway from Wilcannia to Cobar.

4857. Well, with the existing railway at Bourke? Yes, it would—for one reason, because from Menindie downwards the river is open for steamer traffic for several weeks after it closes at Wilcannia, and if the river were locked to Menindie freightage would go to Adelaide or to Victoria for two or, perhaps, three months longer.

4858. You think that the locking of the river would have the effect of increasing the trade with Melbourne and Adelaide? It would undoubtedly, because, if the river were locked from Bourke even only to Menindie, there would be only a short track of country from Menindie to Broken Hill—only 65 or 70 miles.

Edward Quin, owner of Tarella station, sworn, and examined:—

4859. *Mr. Watson.*] How far is Tarella from Wilcannia? Forty-six miles north-west from Wilcannia.

4860. At one time you were a Member of the Legislative Assembly? Yes; in three Parliaments.

4861. *Mr. Shepherd.*] You are aware of the proposal to lock the river? Yes.

4862. Have you given it any consideration? Yes, I have.

4863. What is your opinion as to the general effect it would have on the squattages on the river? Of course it would be better to have continuous navigation as against non-navigation; but I do not think it would be worth the cost to the country.

4864. Do you think that it would have the effect of drawing traffic from the Bourke railway, for instance? No, I do not; because the freight on the Bourke railway, and the freight down the river by boat, would preclude people from using the river, except very near to the railway.

4865. The river is largely used now for conveying wool to Victoria and South Australia? Solely used. No one thinks of using any other way—that is the only highway.

4866. And for bringing stores back from those places? Yes.

4867. Is the river used at all for the purpose of sending wool to Sydney, or bringing goods from Sydney? To a very limited extent. There is a heavy railway freight from Sydney to Bourke, and then the boats charge £3 10s. per ton from Bourke to Wilcannia. That would necessarily preclude the boats from competing against the Cobar to Wilcannia railway. The river-traffic is so uncertain that only one or two boats lay themselves out for it, and they charge a high rate, and, therefore, not much is brought from Sydney that way.

4868. It is very rarely that the river is navigable the whole year round? Very rarely.

4869. Almost unheard of? Yes.

4870. Is the river generally navigable about the season that wool is ready to be sent away? Very often it is.

4871. And, I suppose, that for a considerable distance up the river the wool always finds its way down stream? Yes.

4872. But I suppose that, within a reasonable distance of the Bourke railway, all the people avail themselves of that line? Yes; I think that if there were a railway from Cobar to Wilcannia it would be availed of more than some people now think. For instance, take the case of the Tibooburra wool. If there is the slightest uncertainty as regards the river, the Tibooburra people say, "We will send our wool to Broken Hill; the river is not safe." If there is a certainty of a river here they send their wool to Wilcannia, because Tibooburra is nearer to Wilcannia than to Broken Hill; but, with uncertainty of the river, they prefer to pay for the extra carriage from Tibooburra to Broken Hill, because there is certainty of transit there.

4873. Is any considerable quantity of wool sent *via* Broken Hill? I cannot give you any figures. I sent 220 bales that way myself this year.

4874. That was before the river was a certainty? Yes; although I am within 46 miles of the river, I sent the wool to Broken Hill.

4875. I suppose the quantity of goods brought from Broken Hill to places in this district is not very considerable? Very much larger quantities were at one time taken to White Cliffs from Wilcannia, which is a natural market for White Cliffs; but, in consequence of their being no goods here owing to the river not being navigable, the White Cliffs people had to send to Broken Hill for goods. If the proposed railway from Cobar to Wilcannia had then been in existence, all the goods then required for White Cliffs would have come from Sydney.

4876. If the river were navigable the goods required for White Cliffs would not come *via* Broken Hill at all? No.

4877. Of course, the principal object in locking the river is navigation; but it was also thought that the Committee should inquire into the advantages that might be derived from irrigation;—have you considered the question of irrigation? Yes, I have.

4878. Do you think it is feasible that any large areas could be irrigated if the river were locked? I do not think so, judging from my experience and from seeing what has been done on the river by some of my friends. They have irrigated a few acres at great cost, simply to produce fodder for their own horses; and if they had been able to purchase fodder at £6, £7, or even £8 per ton, I think it would have been cheaper. Irrigation is very costly. The wages of engine-drivers, the cost of firewood, and other expenses of lifting the water from the river, make the irrigation of small patches very costly.

4879. The Committee have found by investigation that, as a rule, the land near the river is not so suitable for irrigation as is the land farther away from the river? No, it is not. The land near the river has some properties in it which are not conducive to the growth of certain crops.

4880.

M. J. C.  
Tully.

10 Oct., 1899.

E. Quin.

10 Oct., 1899.

- E. Quin.  
10 Oct., 1899.
4880. There are two descriptions of land, which are generally called the black and the red? Yes; and the red seems to be the better; but the red is nearly always elevated. I never saw it sufficiently depressed that you could gravitate water on it.
4881. Sometimes it is designated sandhills? Yes—just sandhills.
4882. Do you not think it would be possible to convey the water for some distance from the river for the purpose of utilising this red soil? I think it would be possible, but it would be costly.
4883. You do not think it would pay? No, I do not. If people could get cheap fodder, either on the stations or at Wilcannia, I think you would hear nothing more of irrigation, locally, at any rate.
4884. It might not pay to irrigate on a very large scale to feed the whole of the stock on the station, but do you not think that it would be quite possible to irrigate a sufficient area to keep the stock alive through a bad season? No. You might keep your few "studs" alive, which are generally very valuable; but I do not think it would pay to do anything else, and even in the case of the "studs" I think there would be a difficulty.
4885. You are aware, I suppose, that in some cases squatters have paid over £5,000 each for forage for their stock, in the last twelve months? Yes; I am aware of that; but, if they had known in the first instance that they would have had to pay the £5,000, I think they would have let the stock go. I have known people to cut scrub for twelve months, and then the stock died, and if they had known that the stock would have died, they would not have cut the scrub.
4886. Do you think that if fodder could be carried at 10s. per ton from Dubbo, for instance, that would obviate the necessity for irrigation here? I think so, for any "out-back" station. Of course you hardly know what a man 100 miles up the river would do, for it would depend on what he could get his goods for from here to his place, but I think that very few people who could get their goods from Wilcannia at a moderate cost would indulge in irrigation. It is a costly experiment.
4887. I believe you said you have been on the Darling country for about thirty years? Yes.
4888. What kind of country was it thirty years ago? Apparently very much better than it is now. I think the country has deteriorated very much.
4889. What grasses were there chiefly then? Mulga grass, star grass, umbrella grass, and within a short distance of, perhaps, not more than 100 miles from the river, Mitchell grass. There was a sort of trefoil growing in some places. There were also wild geranium and crow-foot, and many other grasses including Nardoo. There were many edible scrubs, including cotton and salt-bush, which in many places have now quite disappeared.
4890. How many of those have disappeared altogether? In a good season nearly all those grasses re-appear in limited quantities with the exception of the cotton and the salt-bush. Where this is absolutely dead, it never seems to revive. It has been a growth of a long time, and the constant nibbling of it, whether by rabbits or by sheep, prevents its recovery. The erosion of the soil is a considerable factor in affecting the grazing capacity of the country. For instance, a great deal of this country has a subsoil 4 or 5 inches below the surface, and the constant stocking causes the top 4 or 5 inches to become loose, and in high winds it shifts about, and after severe rain such as occasionally falls in this district this soil is carried into the creeks and water-holes and tanks, and silts some of them completely up, leaving the hard subsoil exposed, which grows nothing. In some of the stony country the removal of the surface-soil leaves exposed a conglomerate which is within about 4 inches of the top soil, and which never grows anything. In that way the country is deteriorated.
4891. Have you noticed any new grasses make their appearance? No; but I have noticed new herbs, which nothing eats. For instance, there is the herbage which we call the Caustic bush. It produces a white milk, and the stock will not touch it; and there are many other bushes which are of no value.
4892. So there is no grass or herbage here of any value beyond that which was here originally? No.
4893. What was the country capable of carrying thirty years ago, as compared with its capacity at the present time? I should say, all over the district, fully one-third more than the extent to which it can be utilised now, even in a good season.
4894. To what do you attribute this great falling off in the carrying capacity of the country? The stocking chiefly, and then the rabbits. The rabbits have been the climax. You cannot "rest" country as you could once. Formerly you could "spell" one or two paddocks, but you cannot do that now. If you "rest" country now it means breeding rabbits; so the thing is to stock lightly and poison the rabbits, if you can. If you do not fight the rabbits you will be the loser. It pays every man to fight his own rabbits.
4895. But would not the "resting" of the land have the effect of concentrating the rabbits and making them easier victims? It would, unless perhaps, 20 points of rain happened to fall, for those 20 points of rain would produce such a green nibble for the rabbits that you would not be able to poison them. I have gone through a whole summer and perhaps not had 2 inches of rain, and in no case more than 30 points at one time, and yet we could not poison the rabbits. As soon as they got a nibble anywhere else, it distributed the rabbits. Nor could you get sheep feed anywhere. It is quite a common saying, "We have plenty of rabbit feed, but the sheep cannot get a bite at it." I think that the presence of rabbits in this country must be recognised as part of the stocking.
4896. Have you not thought out any scheme by which the country could be redeemed from the terrible curse which seems to be upon it now by reason of the rabbits and the drought? Just as I have suggested. I think that if conditions were improved, as I have already suggested, then everything that could be taken out of the country would be taken out of it. There is too much money involved in this country for people to throw it up if they can get along on it at all, if they can possibly hold it, but most of the properties are being held now at large annual losses in the hope that something is going to be done. For instance, all that I have I have in this country, and if I were to throw up the country I should also throw up everything I have.\*
4897. You think that fixity of tenure for a long period would enable squatters to spend money in improving their land and would alleviate a good deal of the distress? Yes; and it would increase capitalists' confidence.

\* NOTE (on revision):—I referred before this to the homestead lessee being able to take up an improvement, use it for two years, and then abandon it. Unless it is done *bona fide* lessees will cease to make improvements or maintain those made; some protection must be given to present holders.

- Thomas Henry Bell, editor and proprietor, *Western Grazier*, Wilcannia, sworn, and examined:— T. H. Bell.  
 4898. *Mr. Shepherd.*] What are you by occupation? I am editor and proprietor of the *Western Grazier*, 10 Oct., 1899.  
 Wilcannia. I am also a licensed and a mining surveyor.  
 4899. How long have you been here? Fourteen years.  
 4900. *Vice-Chairman.*] Would you kindly express to the Committee your opinion as to the advisableness of constructing locks and weirs between Bourke and Menindie? I think that, if the work be carried out at all, it should be carried out only as far as Wilcannia. If carried out to Menindie it will simply help to feed the South Australian and Victorian railway systems by inducing the traffic to go that way. If the river were locked down to Menindie there would be a demand for a railway from Broken Hill to Menindie, and that, if constructed, would form a direct connection with South Australia.  
 4901. If the river were navigable to Menindie, as it would be under such a system of locks and weirs, and not navigable below Menindie, you think that the wool would be sent from Menindie to Broken Hill for transmission to Adelaide? Yes.  
 4902. Would that hold if there were a railway to Wilcannia from Cobar? Oh, no.  
 4903. Do you think that, if there were a railway from Wilcannia to Cobar, the construction of these locks and weirs would make the river a feeder to the Cobar-Wilcannia railway? I think so.  
 4904. But, if the locking were completed as it might be by the Federal Government along the whole course of the river, what would then be the effect of the locks and weirs on the proposed line from Cobar to Wilcannia? I think that, even in that case, the locks and weirs would not affect the Cobar-Wilcannia railway injuriously.  
 4905. Do you think that, with these locks and weirs, irrigation on any comprehensive scale would be profitable along the course of the river Darling in competition against more favoured districts, watered naturally? No, I do not.  
 4906. So you do not think there is much in the idea of irrigation as a secondary result of locking the river to Menindie? I do not. I go further. First of all, there is the cost of lifting the water, which would be considerable. Secondly, if any permanent settlement were to take place along the river, and if irrigation farms or colonies were formed, any very high flood would destroy everything. But, if irrigation would pay, it might be carried on at a distance back from the river some 4 or 5 miles.  
 4907. *Mr. Watson.*] You said just now, in reply to Mr. Dick, that, presuming the proposed railway from Cobar to Wilcannia to be built, and the river to be locked from end to end, that railway would be injuriously affected as regards its traffic? Yes.  
 4908. Do you think, then, that the locking of the river would result in any material reduction of freights on the river as compared with the freights on it at the present time? I do not think so.  
 4909. Is it not probable that whichever authority may construct locks and weirs on the river would charge a small amount by way of toll? Yes.  
 4910. And that would be added to the freight? Yes; and insurance must be added as well, in view of the extra charges likely to be levied on a locked river as tolls, I still think that the Cobar-Wilcannia railway would command the bulk of the traffic.

TUESDAY, 24 OCTOBER, 1899.

Present:—

THE HON. WILLIAM JOSEPH TRICKETT (CHAIRMAN).  
 The Hon. ANDREW GARRAN, LL.D. | WILLIAM THOMAS DICK, Esq.  
 JOHN CHRISTIAN WATSON, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

- William John Allen, Fruit Expert, Department of Mines and Agriculture, sworn, and examined:—  
 4911. *Dr. Garran.*] Have you been at the irrigation settlement at Wentworth? Yes, in May last. W. J. Allen.  
 4912. Have you been at the Hay irrigation works? Yes. 24 Oct., 1899.  
 4913. Have you been at the Pera bore? Yes.  
 4914. Have you been down the Darling? I have never been down the Darling.  
 4915. One of the subjects which this Committee is inquiring into is the expediency of locking the Darling, first, with regard to navigation; second, with regard to irrigation. I will not ask you any questions with regard to the navigation of the Darling. With regard to irrigation the point to be considered is, is there likely to be so much use for the water for profitable irrigation as to justify the expense of locking the Darling;—have you formed any opinion as to that? I could not very well form an opinion on account of not having seen the soil. Unless I knew the quality of the soil on the river, I could not give any idea as to whether or not it is suitable for irrigation. Different kinds of soil are required for growing fruit and for growing cereals.  
 4916. We are told that soil on the lower ground is clay, and that that on the higher ground is lighter? I will say that on the heavy, flat, boggy soil it would be useless to go to any very great expense to put water on the land; but on the lighter soils it would answer very well. You could cover most of the land with water, judging by the land that I have seen on the Murray and on the Darling.  
 4917. You think that only the higher portions would respond to irrigation? I think that most of it would respond to irrigation, except the very heavy soils; but I think that the cost of putting the water on the heavy soils would be too much as compared with the return that you would get.  
 4918. Would the cost be greater on the lower land than on the higher land? The cost on the lower land would not be greater; but the heavy soils are not the best for growing anything. That land is no good for fruit growing. If it is very heavy, it is of little value for cereal growing. If it is heavy loam you might grow wheat very well; but it would be useless for lucerne, whereas the higher soils would be very good for fruit-growing, and most of the land, perhaps all, good for cereal-growing.  
 4919. Could not the roots of the lucerne penetrate the heavy soil? It would in some places, but it would never give a good crop. You could not get heavy crops, and the cost of putting the water on the land and levelling it would be more than the return would justify. 4920.

- W. J. Allen. 4920. Lucerne likes a fairly open soil through which its roots could penetrate? You want a fairly loamy soil. If the subsoil is too heavy, the lucerne will not do well. It will live, but you will not get heavy crops.  
24 Oct., 1899.
4921. Lucerne likes to go down to the water? It likes to reach down, if necessary, to water.
4922. It draws nourishment from the soil to a great depth? Yes.
4923. If you know Pera bore you probably know that there is a site for cultivation which has been pointed out as a suitable place, near the irrigation farm? It has not been pointed out to me.
4924. Is the soil about there similar to that which you cross in going over the bridge? I think that the soil would do fairly well there for cultivation. If you put such soil as that under water you could make fruit and cereal growing pay.
4925. Is that at all like the soil at Wentworth and Hay? No; most of that at Hay is much heavier.
4926. Would it be better soil? The Bourke soil would be better than most of the soil at Hay and Wentworth.
4927. What is the colour of the soil at Hay? There are several different soils there. There are from 100 to 200 acres of fairly loamy soil with a heavy subsoil, but which I consider very fair for fruit-growing. A large quantity of it, however, is very heavy, and will make good dams and hold water, but will not be very profitable for cultivation.
4928. Then the whole of that area at Hay is not first-class irrigation land? It is not.
4929. Do you think, then, that more expense has been incurred there than the good area of land justifies? As far as I can see—and I have visited most of the irrigation settlements—I do not think they have put the water on the best soil.
4930. What is the soil at Wentworth like? It is not any better than the Hay soil.
4931. I suppose some portions are not fit for irrigation? Some of it is suitable for growing cereals, but not for fruit.
4932. Then the prospects of those two settlements are not very brilliant? No.
4933. When you say that we have not applied water to the best soils, do you mean on those settlements or on the rivers generally? I mean on the rivers generally. At Wentworth we have, I believe, in the area in which the irrigation area is situated some good soil within a few miles, but it is on a higher level.
4934. I understand that you have been at Mildura? Yes.
4935. And you know the quality of the soil there? Yes.
4936. Is it different soil from that at Wentworth or Hay? There is soil at Mildura similar to that at Hay, and some better—it varies.
4937. Is it a better site? I do not consider that Mildura is a good site.
4938. You think you could choose a better site with your present knowledge? I do.
4939. Do you know any better site in this Colony than that at Mildura? I have not been over the site at Tooleybuck, but there is a large tract of good red soil there, coming right up to the Murray River. I should say that there are 7,000 acres of good red soil.
4940. How far below Swan Hill? About 22 miles.
4941. How far above Wentworth? About 140 miles.
4942. So far as you have seen of Mildura and the two Government irrigation settlements here, do you think there is adequate justification for the Government spending any considerable sum of money in starting fresh irrigation schemes? I certainly do.
4943. And you think that the best place is on the site you refer to? That is one good site. I have not been all down the river from Albury, but I have no doubt that there are many good sites. There is one between Wentworth and Mildura.
4944. We have been told that the great difficulty at Wentworth and Hay was to get persons who have enough knowledge of irrigation to do justice to the land? That is certainly a drawback. You might say that there is no person to instruct them on those areas, but it is a thing that can be easily picked up if they would take a little more care in reading up.
4945. Then we have to train a population to do justice to irrigation? We have, to a certain extent.
4946. Then, if the Government starts an establishment, it would be almost essential that there should be some one in charge to teach the people what to do? I think there should be somebody in such a settlement to advise the people. There should be some place where people could go for advice. But they do not always take advice when it is given to them. You have to wait till they come for it.
4947. At the place you selected there would be no local market for the fruit? No local market whatever.
4948. We should have to look to exportation? There is a market in New South Wales for fruit. We have not supplied our requirements in the way of dried fruits yet.
4949. There is no market within a few miles of that place? No.
- 4949½. Is there any advantage in going so far west to make irrigation farms? The two main things are to get good land and a good supply of water. We found last year that the Lachlan and the Murrumbidgee Rivers were comparatively dry. We could not have pumped any large quantity of water out of them, but the Murray has always had a fairly good supply of water.
4950. It would be dangerous to start an irrigation farm on the Murrumbidgee in a dry year? Some years you would have a good supply of water, but last year you would not have had much.
4951. If you begin to irrigate an orchard you must keep on irrigating it? You would have to continue.
4952. Then the large estates on the Murrumbidgee could not profitably be turned into irrigation farms? For many years you would get sufficient water for growing cereals, but not for growing fruit. There are thousands of acres of land that are good for growing cereals, but of no value for fruit-growing.
4953. Does fruit take more water than cereals? Yes. You must have the water. If you miss a season with cereals it does not matter very much; but if you miss a season with an orchard, you lose your orchard.
4954. If the trees are accustomed to water, they will die if they do not get it? Yes.
4955. Could they not hold their own without bearing for a year? I am very doubtful. If you had a very dry year, and no water, it would damage the trees and put them back.
4956. Is there any great difference in the climate on the eastern side of the main range, and on the western side, as far as the production of fruit is concerned? On the coast side of the range the climate is suitable for growing fruit; but not fruit for drying. There may be places in the coastal districts where you could grow fairly good fruit for drying; but as far as my experience goes the drier the climate is the better is the fruit for drying.

4957. Then, for eating or green fruit, the eastern slopes are very suitable? Yes.
4958. But if you want to grow fruit for drying you must go out west? Yes, and you could grow oranges and lemons, which we can export quite easily. We had no trouble in sending oranges from Mildura to England.
4959. It is so superior that it will bear keeping? Fruit grown in a dry climate will keep much better than fruit grown in a moist climate.
4960. Is that because there is less moisture in the peel? I could not explain what the difference is; but in a dry climate, if you irrigate your oranges and lemons until two months before they are ready to be picked, and then cease to irrigate them, you will have good fruit, which will keep. If you irrigate your trees up to the time for picking the fruit, you will get fruit that will not keep so well.
4961. Has it not been found to be one of the difficulties in shipping oranges in cold chambers that there has been an exhalation of moisture from the peel? Yes.
4962. And that would take place more in the case of oranges grown in the Parramatta district than in the case of oranges grown at Mildura? Yes.
4963. Could you get rid of that difficulty by artificially drying the oranges before sending them? It might be got rid of to a certain extent. I think our oranges could be exported from here if we could get proper chambers to send them in; but not so well as back-country fruit.
4964. Is the peel of the back country fruit softer than that of the fruit grown in the coast district? The peel is tougher and drier.
4965. That is probably owing to the dryness of the air? Yes.
4966. And it does not dry up the fruit inside? No; we get the best quality of fruit from the interior.
4967. The dry air only affects the peel? Yes. You get as good oranges in the interior as can be grown anywhere.
4968. How far should we have to go from the main range—say from Yass—before we got into a climate dry enough to meet your views? I should say anywhere from Narrandera to the westward.
4969. You think Narrandera would be dry enough? We could do well on the red soil near Narrandera, or in any back country.
4970. But you would have the difficulty of occasionally wanting water at Narrandera? Yes.
4971. If we could have a large reservoir, such as Mr. McKinney speaks of, and could keep the Murrumbidgee sufficiently in flood, or if we could bring water down by aqueducts from a great reservoir, we could get over that difficulty? If you could get over that difficulty you could get suitable land without going so far back.
4972. If you could get water at Narrandera for three years, it would be safe to start an irrigation farm there? I have never seen any very large tract of the best land there. In starting an irrigation settlement for fruit-growing, I take it that we should have to get a good-sized tract of land which could be watered economically, so that the 10 or 20 acre holdings could be planted side by side, and the people could work together.
4973. It would be better to have one good large settlement than twenty scattered small ones? Yes.
4974. Then the people could help each other? Yes; they could co-operate in regard to the handling of their produce, and securing a market.
4975. You know of no good site nearer to Sydney than that place on the Murray, that would be suitable? No; I could not mention a particular site.
4976. You want three things there—a dry climate, plenty of water, and good soil? Yes. If you have to pump you want to be in a position to get fuel at a reasonable price, unless you use gasolene.
4977. Have you anything to do with advising the settlers in regard to the Hay and Wentworth irrigation schemes? I have made two trips to Hay, and one to Wentworth irrigation works. I called on most of the settlers at Hay, and gave them advice, telling them what was best to plant on their different holdings, and since that time I have been back there showing them how to do their pruning.
4978. Do they shape well? It is only about six months since I made my first trip. Some of them are doing very well.
4979. You do not think they are hopeless settlers? No; Hay could not get along well without that settlement.
4980. It may ultimately turn out to be remunerative? I do not doubt that. In the back country, where food is so scarce, they should make it pay, if only by growing cereals.
4981. Do you think it would pay to grow fodder in the back country to keep sheep in dry seasons? I could not say. If sheep keep up their present price, I think it would.
4982. We have had evidence to the effect that on the Darling it would not pay to grow fodder to keep the sheep alive throughout a dry year? I think that if you got a large tract of land to irrigate, without too much expense in levelling, and if water could be put on by gravitation at a reasonable cost, they could make it pay in years of this kind, but not in years such as we have just passed through, with wool at a low price.
4983. Last year you would have had to keep the sheep all the year round;—would not the cost amount to more than the value of the sheep? I think it would not, if water could be supplied at a reasonable cost.
4984. Assuming that we have to lift the Darling water 30 feet, you do not think it would be commercially possible to grow fodder to save the starving sheep? Not unless you have exceptionally good land.
4985. Of course, there is no comparison, as regards economy, between getting water by gravitation and having to pump it? Pumping is more expensive, but for fruit-growing it does not make any difference. A difference of 5s. or 10s. an acre on good soil does not matter to a man growing fruit. Take the case of Mildura: On the best soils they are making from £20 to £60 an acre. Twenty pounds is a very ordinary average for lemons, oranges, sultanas, and raisins. That is on the best soils. On the other soils it hardly pays them to grow fruit.
4986. And that would imply that, assuming the pumping is done on the Darling, orchard cultivation is more likely to be profitable than cereal cultivation? Yes.
4987. And market gardening could be carried on? No; market gardening would require water so often, and where you have to supply water to settlers once a week or once a fortnight, it is very expensive.
4988. How often should you want your orchard to be watered? Perhaps, in the hottest part of the season, once in six weeks.

W. J. Allen.  
24 Oct., 1899.

- W. J. Allen. 4989. Consider the cost of keeping an expensive pumping plant and only using it once in six weeks? If you have a good-sized settlement the pump is going continually.
- 24 Oct., 1899. 4990. But on some settlements it would not be so? Small settlements cannot be run so economically as large ones.
4991. Some of those gardens are irrigated more for amusement than as a commercial speculation. Yes.
4992. Just to grow a supply of fruit and vegetables? Yes.
4993. You could not make a living at it? Yes. If I had from 20 to 100 acres, on a river, I could make it pay well, growing fruit on good land.
4994. But not growing vegetables? I think it would be too far away for vegetable growing; it would be hard to get the vegetables to market.
4995. You spoke of the Darling exclusively when you said you could make a living? No; I mean anywhere where you could get sufficient water.
4996. Looking at the eastern side of the range, where the most fruit is grown at present, would there be any improvement in introducing irrigation into the existing orchards? I do not see where it could be done on a large scale.
4997. The only way would be to get a very large block of good soil, supplied with water continuously from an unfailing source? Yes; and in putting water on land you want the land not too rolling, but a fairly even tract of country.
4998. You want it graded? You have to grade it so that it can be irrigated properly. To put water on a tract of land economically you want it as level as possible.
4999. What is the best slope for irrigation? There should not be too much of a slope. We can make it answer where there is a slope of 5 feet in 100 feet, but I would not recommend anyone to go on that kind of land. I would choose a piece of land with a fall of 1 foot in 500. A fall of 2 feet would not be out of the way.
5000. You want it just so that the water will run? Yes; in irrigating an orchard, a fall of 8 inches or a foot in a mile would do for the main channel.
5001. When the natural surface is steeper than that, it is less suitable for irrigation? You can irrigate a fairly steep hill, but it is a little more difficult to handle the water.
5002. What I want to get at is: are the existing orchardists to the east of the main range likely to be superseded by orchardists to the west? I think that as far as fruit for export goes, they will be, but the orchardists on the eastern side will always have the local market.
5003. At certain seasons of the year they might have the Melbourne market? Yes; if a good-sized scheme were started on the Darling or the Murray, they would be closer to Melbourne than to Sydney, and could get to Melbourne as cheaply as they could to Sydney.
5004. From a place on the Murray they could send fruit to Melbourne as cheaply as they could send it to Sydney? Yes; it would cost 9d. or 10d. a case for fruit.
5005. No doubt under Federation there would be just as good a market at Melbourne as elsewhere? Yes; as far as dried and canned fruits are concerned, New South Wales is not producing 20 tons a year, whereas in Victoria they are producing a little more than they require.
5006. Is not their climate drier than ours? Yes.
5007. North of the Dividing Range there is a nice dry climate? Yes.
5008. But we do not get that, until we are west of a range? No.
5009. Our climate is not suitable for producing dried fruit? You can dry the fruit, but it is not of the best quality.
5010. *Mr. Watson.*] During our visit to the Darling, there seemed to be a great diversity of opinion amongst those who had had experience of irrigation as to which soil was best suited for it;—some think red soil, others favour black soil;—have you had any experience of the soil along the river there? On the bank of the Murray, near Wentworth, there is a black soil which will grow almost anything, but as you get further back, as a general thing, it is not so good. It is only a few hundred yards close to the bank. For lucerne, the red soil is not the best.
5011. When I asked which was the best, I meant for fruit-growing? There is no doubt that the black soil will grow cereals well enough when it is not flooded, but in some country the fruit-trees live through the flood; perhaps the flood would not stay up very long. Some kinds of fruit—oranges and apricots—would do very well, but you would not get the same quality on black soil as you would on red soil. Raisins and sultanas, dry produce, would not be worth so much by 1d. or 2d. a lb. Raisins grown on the heavy soil are not of such good quality as those grown on the lighter soil.
5012. On the map you will notice a diagram showing a system of proposed locks; for some distance back there is black soil, liable to inundation, and we were informed that, roughly speaking, the red soil does not come within 3 to 10 miles of the river bank; that is the land which you say is best for fruit;—how far do you think it would pay, assuming the land at that distance back to be good to carry the water from the river after having pumped it up? Of course, that would depend on the area of the country that you were sending your water back to. The channel would have to be concrete or cement.
5013. I am assuming that the quantity of good land, once you get a distance back, is unlimited; we were informed that a distance back, varying from 3 to 10 miles, we could get any quantity of good, red land; I want to know what would be the distance that it would pay to send water back? I should think that 10 miles would be the very outside, if the land were not subject to flood. I think 10 miles would be the outside for a good-sized tract of country.
5014. You think it would pay? If you had the best soil; otherwise it would not.
5015. What is the extreme distance back from the pumping-station that land has been irrigated at Mildura? They have gone back 10 or 12 miles. They should not have gone back there; the good land is very scattered. I would not recommend country of that kind for irrigation for fruit-growing. It is all right for growing cereals; but not one-third of it is good enough for fruit-growing.
5016. Is it patchy? Yes.
5017. What do you think would be the extreme lift that would be payable in the way of pumping? I do not know that I could say. Of course, if you had good land, it would pay very well if it cost 30s. or £2 an acre for water. I should think that it would pay to water large tracts of land close to the river by lifting the water even as high as 80 feet.
5018. Then 40 or 50 feet would not be out of the question if the land were good? Not at all.



5019. Have you any doubt as to the ability of people settling, say, on the banks of the Darling, on irrigation farms, to find a market for dried fruit? No; if they raise their fruit on good soil no doubt they will get a market. W. J. Allen.  
24 Oct., 1899.

5020. As long as the quality is there? Yes; as long as the quality is good there is not the slightest doubt about a market. At present we import into New South Wales over £100,000 of dried fruits every year.

5021. It would not take many fair-sized settlements to supply New South Wales? No; we could grow a good many thousand tons, and we could put them on the market in the Old Country at a profit. The sultanias raised in New South Wales are second to none that I have seen.

5022. *Mr. Dick.*] Presuming that they have fairly good land along the Darling, could you tell us in inches how much water should be distributed over an irrigation area, at each watering—first for cereals, and second for fruit? There should be sufficient water available so that the supply would be equivalent to one cubic foot per minute for every two acres.

5023. A cubic foot per minute? Yes.

5024. Could you give the inches along the surface? I could not off-hand.

5025. *Mr. Watson.*] Mr. McKinney said that with a rainfall of 12 inches in the year it would require the supply of another 10 inches, but, to make sure, he would double the quantity and make it 24 inches? You could do fairly well with that; you could grow most fruits with 24 inches of water.

5026. If you had 10 or 12 inches of rain, would you still require to use 24 inches of water? It would not be necessary, but you want it to be there so that you could use it.

5027. Would that be a sufficient stand-by? If I were laying out an irrigation settlement I should want to be able to get 30 inches per annum if I needed it. It would take 14,520 gallons to flood an acre 4 inches deep.

5028. *Mr. Dick.*] During our inquiry on the Darling, we found that on one irrigation farm used for the growth of fodder crops three waterings were given, each of them being equal to 10½ inches over the whole surface;—could you say whether that is excessive, sufficient, or not enough? I should say it is very excessive, and it is one way of spoiling the land. In the hottest months you would not require more than 4 inches for anything.

5029. Then for fruit crops a considerably smaller quantity would be sufficient? I would not recommend more than 3 inches per month. As a general thing, in this country they give the land too much water and not enough cultivation. They put the water on the land without any cultivation, and without thinking of the damage that they are doing to the land.

5030. We noticed on our visit of inspection down the river that at various points there are high banks of red soil;—do you think that isolated and separate patches of that kind could be successfully irrigated? It could if you could get from 1,500 to 2,000 acres. I think it would pay very well. If the Government wished to start a settlement I would not recommend less than 2,000 acres.

5031. Assuming that there are isolated patches of 200 acres each on the river, do you think it would pay separate holders to take those up and irrigate them? If separate holders could do that, and could get a small plant at a reasonable price, I think it would pay them well.

5032. Do you think that the best results from irrigation are to be obtained by co-operation? Yes; all working together, like a large company or trust.

5033. *Chairman.*] What, in your opinion, should be the first step that should be taken before starting an irrigation block? The first step should be to look around and find out where there is good land with a never-failing supply of water.

5034. You would have for that purpose, an analysis of the soils below the surface as well as above? I would; but I would rather have experience instead of analysis. Analysis will not tell you what the land will do for you.

5035. One of the peculiarities of the land on the River Darling is that on the face of it it looks like a sandy loam, but when heavy winds come and the surface is blown away a kind of hard red clay presents itself? In that case I would recommend that you should find out what kind of subsoil there is. Any person used to that soil, if he dug down, would tell you the nature of it.

5036. The character of the soil is the first thing to inquire into? Yes.

5037. Then is not the next point the question as to the lay of the land? That would have much to do with irrigation. You want fairly even land, so that with a main channel you can water as much land as possible. You can get a tract of land which you can irrigate by running a channel through it.

5038. Would wavy land be suitable for irrigation purposes? It is not so suitable as fairly level ground, but it will do if you have good soil.

5039. For purposes of irrigation, must you not get land of one uniform slope? You have to get it so that you can run water down the furrows in one direction.

5040. It must not consist of a lot of hills? No.

5041. If it were wavy land, would not the intervals have to be filled up before you could irrigate? Yes.

5042. I mean where indentations occur at frequent intervals? That kind of land is not the best.

5043. It would have to be level or graded? Yes.

5044. Is not that an expensive process? It is.

5045. How much an acre would it cost? It costs from £1 to £5 an acre in rough country. In comparatively smooth country, it should not cost more than £1 an acre at the outside.

5046. But if it is rolling country, it will cost from £1 to £5 an acre? It will cost up to £5 an acre.

5047. Coming from a general view to a practical view, what character of country is at Mildura? We had all kinds of land there; we had some very good soil, and some of the worst.

5048. Will you describe what was the nature of the growth on that land before it was cleared? Mallee, pine, belar, and blue-bush.

5049. That all that had to be cleared first? Yes.

5050. Was the clearing costly? It cost £1 an acre to grub round and burn the rubbish off, and £1 an acre to get an engine to pull the trees down after they had been grubbed round. It cost £2 an acre to get the land cleared and for subsoiling; then there was the levelling.

5051. What did it cost before it was ready for the trees to be put in? It cost about £4 an acre on the average.

5052. That would be in addition to the value of the land? Yes, and it does not include fencing.

5053. Did the water flow along the furrows there? After we had planted the land, we made furrows with a small plough, through which the water ran.

- W. J. Allen. 5054. Can you tell what it cost per acre to plant the land with fruit-trees? That depends upon the kind of fruit-trees you are putting in. It costs about £5 per 100 for citrus trees, and from £4 to £5 for good deciduous trees.
- 24 Oct., 1899. 5055. If you put in eighty, they cost about £4 an acre? Yes. Then staking out and planting costs from 30s. to £2 an acre.
5056. I want you to say what the total cost will be when your trees are planted? About £10 an acre.
5057. In addition to the cost of the land? Yes.
5058. Then, in addition to tending these trees, there would be a quarterly or annual charge for water? Yes, £1 an acre I should say. I consider that a good supply of water would be very reasonable at £1 an acre.
5059. From your experience of Mildura, is it necessary for these stone fruits that the land should be above flood-water level? I may say that most of our soil was above flood-water level. Any soil that was not above it was not worth using.
5060. So your opinion endorses the evidence that we got on the Darling River, that land that is subject to floods is not fit for the growth of fruit-trees? I could not recommend such land.
5061. Either for trees or other crops? It is good for nothing.
5062. So that it is a first necessity that the land must be above flood level? Yes.
5063. Lately, in visiting the River Darling between Bourke and Menindie, we noticed that the ground was cracked a great deal and was full of crab-holes;—is that a good indication for agriculture? No. Most of that soil that has cracks and crab-holes in it is of very little value for growing fruit.
5064. Do you regard Mildura as a successful result of irrigation settlement? I could not say that I do, for this reason: they have a lot of exceptionally poor soil, to reach which they put down long channels, the land being miles away from the river; and the expense they have gone to to put the water on a few thousand acres of good soil has been altogether excessive.
5065. Are there good tracts of country there as well as bad ones? There are some very good tracts, but they are not very large. On those tracts the settlers are doing very well.
5066. One witness who was called gave it as his opinion that the settlement at Mildura would have been a success if it had been properly managed;—do you think that management has anything to do with it? I do not think that management has anything to do with it. If they had had good soil it would have been all right. I do not think that anybody could have made it a success with so much poor soil.
5067. Do you know Lord Ranfurly's settlement, and what has been the result of his farming there? On all his good soil, which is red, he has been getting a good return for the last four or five years. Then, on parts of his holdings, he got unsuitable trees, and was compelled to dig up some and rebud others. I might also say that part of his soil was heavy clay, not suitable for fruit-growing. Those portions, after working the land for several years, he has practically abandoned for fruit-growing, but he is growing cereals on some parts of it.
5068. You said a little while ago that you thought that, taking a block of 2,000 acres, it would be necessary to construct a 10-mile drain to convey the water through to irrigate that block;—could you tell us what would be the cost to make a drain through country which is likely to crack? I would hardly recommend the running of a 10-mile drain for 2,000 acres. I should want 10,000 acres if I were to run a drain 10 miles. The concreting alone would cost about £2,000 a mile.
5069. If you had merely to construct a channel to convey water along the surface of the ground, that would be all right? Yes.
5070. But if you had to convey it by means of an aqueduct it would not pay? No; I would not recommend it. There is too much good soil without doing that.
5071. In Mildura, where there are some farms distant from the river, have they aqueducts to bring the water? No; they carry the water back through channels to fairly good country, passing through poor country. It is all carried through channels, except in a few places where flumes are used.
5072. Did they have any difficulty there in regard to the cracking of the soil? Not in the lighter soils.
5073. It is only in the heavy clay soil that you have that trouble? I would not recommend the making of open channels; I would recommend that the channelling should be concrete and cement. The water taken from the Murray River is full of crayfish which bore into the channels and cause an immense waste of water.
5074. The surface channels should be of concrete? In every case they should be concreted.
5075. Have you had any experience in the growth of cereals? I used to have a good many teams working in the orchards under me at Mildura, and we grew enough fodder for the horses.
5076. Was that a successful crop? Yes; under irrigation on mallee land  $1\frac{1}{2}$  ton per acre was a small yield, and we had as much as 3 tons per acre.
5077. Did you ever calculate what it would cost to produce a ton of fodder on that land? Yes; the cost would be about £2 a ton.
5078. That would be taking into consideration labour, interest on the cost of preparing the ground, and everything of that kind? Yes; considering that we grew 2 tons to the acre, the cost was a little under £2. If it were  $1\frac{1}{2}$  ton to the acre we considered the cost to be £2 a ton.
5079. What did you pay for the use of the water? £1 per acre per annum.
5080. And you drenched the land, how often? Two or three times during the growth of the crop.
5081. How many inches did you put on? It would be from 3 to 4 inches each irrigation, according to the nature of the soil.
5082. At what intervals did you do that? Before ploughing the land we should irrigate it. We should then plough and sow it, and irrigate it once or twice afterwards, according to the season, using about 4 inches to the acre each watering.
5083. Was it a red soil there? No, it was a mallee soil.
5084. Did the land cake or harden on the surface? No; mallee soil never cakes or hardens when properly worked.
5085. You did not try that on red soil? Yes; I have tried it on red soil.
5086. With equally good results? No.
5087. With regard to caking, did any of the soil cake? Any soil will cake if you grow anything that requires cultivation and you do not cultivate. If you are growing cereals—wheat or barley—the land does not cake.
5088. The growing of lucerne is regarded as very desirable on those stations on the bank of the river Darling;—did I understand you to say that you thought it desirable that lucerne crops should be close to the river, so that the roots could go down and get moisture from the river? No.
- 5089.

5089. You said it was necessary for the ground to be well saturated? At each irrigation, once a month, you should give it a good soaking. Lucerne requires from six to seven floodings in a year. W. J. Allen.  
24 Oct., 1899.
5090. In that dry country would lucerne patches irrigated to that extent do well? They would do splendidly. In the mallee country you could grow some of the finest crops of lucerne.
5091. Could you tell us whether out of the present holdings at Mildura there is one which you could point to as being a profitable investment? Yes; I could point to many, I think.
5092. There are many that are paying? Yes.
5093. And are those the people who originally took up the land, and who have stuck to it? Yes. They are doing well on that land. They would not sell it on any consideration, as long as they can get sufficient water to keep going.
5094. Are they working farmers? Working fruit-growers. They are on the place looking after the work themselves.
5095. They are not capitalists employing labour? No. Capitalists have not made money at fruit growing there.
5096. It is necessary, therefore, for a man to succeed that he should be on the spot and superintend the working of the orchard? He should be, unless he has a very good man to put in his place. It is men who are living there that are making money, generally speaking.
5097. Do the preserved fruits from Mildura find a ready market throughout the Colony? Yes.
5098. Are they exporting any? Yes; they are exporting a few hundred tons of raisins and dried apricots this year, and finding a good market. We cannot supply enough sultanas and currants for the local market yet.
5099. That being so, could you account for the kind of the depression that seems to hang over Mildura;—it does not seem to boom as one would expect? The reason is that they have a hundred miles of main channelling, and all that channelling has to be kept in repair. They have heavy pumping machinery, sufficient to pump water for three or four times the land that they have, and to raise water they have to work these big engines. The depression is caused by many settlers who have poor land leaving and giving up paying their water rates. The water rates are now falling on to the few who hold good land. Instead of 15,000 acres supporting the pumps, from 5,000 to 8,000 acres have to support them, which is increasing the price of water, as it costs nearly as much to pump the 5,000 or 8,000 acres as the 10,000 or 15,000 acres.
5100. The fact is that those people clearing out does not speak well for the prosperity of the settlement? They are clearing out because they have not good soil. It does not pay a man with a poor holding to grow cereals alone.
5101. Can you tell us what is the extent of Mildura that is provided with irrigation? I think that about 15,000 acres have been sold, and from 12,000 to 13,000 acres were planted at one time.
5102. Do you think, then, that the mixed character of the soil there is somewhat of an index as to the difficulty of getting large tracts suitable for irrigation in one block? It is a difficulty; but I think that such tracts could be found. I know there are good tracts in New South Wales which could be put under water at a very reasonable expense.
5103. To what extent? I think 10,000 acres is necessary.
5104. You think that all those spots that are suitable for agriculture under irrigation would be found not in very large tracts, but in tracts of 10,000 acres? Yes.
5105. I understood you in your former evidence to say that from 5,000 to 10,000 acres would be a fair thing to work on the co-operative principle? Yes.
5106. If within a reasonable distance of water, and where you would not have to convey it by aqueducts for any distance? Yes.
5107. How does the fruit from Mildura go to market? There are only about eight months of the year during which they can market their fruit? They send it by river to Morgan, then on to Adelaide.
5108. They are not in a very favourable locality for getting their produce to the market? Part of their
5109. With regard to such products as dried fruit, the difficulties of transit are not insurmountable? No. fruit goes to Swan Hill, and from there to Melbourne? All the dried fruit goes down by boat.
5110. I suppose that, not having visited the Darling between Bourke and Menindie, you would not like to give an opinion on that country? I would not give an opinion on any soil unless I had first seen it.

WEDNESDAY, 25 OCTOBER, 1899.

Present:—

The Hon. WILLIAM JOSEPH TRICKETT (CHAIRMAN).

The Hon. ANDREW GARRAN, LL.D.

JOHN CHRISTIAN WATSON, Esq.

WILLIAM THOMAS DICK, Esq.

ROBERT HENRY LEVIEN, Esq.

The Committee further considered the expediency of constructing Locks and Weirs on the River Darling, between Bourke and Menindie.

James Granter, surveyor, Water Conservation Branch, Department of Public Works, sworn, and examined:—

5111. *Chairman.*] For some time you have been employed in connection with the proposed locks and weirs on the river Darling? Yes; I made all the surveys that have been made except one, in connection with the present scheme for locking the river below Bourke. J. Granter.  
25 Oct., 1899.
5112. *Mr. Dick.*] Have you a detailed statement of the heights of the various off-takes of the ana-branches on the river Darling between Bourke and Menindie? I have not prepared a statement; but I have taken out some of the levels which I can now give in evidence, going from Bourke downwards. I took the main ones on the south or left bank of the river. I did not go on to the north bank at all. The proposed reduced level of the pond above the lock site No. 9, is 247 feet above mean high-water mark, Sydney. Three or 4 chains back from the river the reduced level of the bed of Talyawalka Creek is 258.49. That would give a cutting of 11½ feet to reach the level of the upper pool. It would never do to take off at that depth, as the effect would be to turn all the water down the creek. Following the course of the Talyawalka downwards, the cutting would about run out at 20 miles where the reduced level is about 240 feet. The cutting would vary from 11 feet down to nothing at 20 miles. The next take-off is at the Ten-mile Creek entrance, off Culpaulin Island, and it goes from there to the junction of the

J. Granter. the Upper Talyawalka. There has been a survey of that made. The reduced level of the upper pool, at lock site 13, is 212 feet. Then the level along the bed of that creek shows that a cutting 20 feet deep would be required. I have only got the levels for 6 miles—as far as the detail plan went. It shows that a cutting as deep as 20 feet would be required. The deepest point would be 4 miles back from Culpaulin Island. That is following along the course of it as far as our detail survey went.

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5113. You stated that it would be inadvisable to cut a channel in this creek down to the proposed level of the pool? Yes.

5114. On the ground that you might possibly divert the whole of the water of the Darling into that channel? Yes, it would be possible.

5115. Could that be regulated by having gates at the lower end of those anabranches where they come into the river again? Not at the lower end, but at the off-take.

5116. In what way could those creeks be filled, in connection with the proposed system? They could only be filled by making these cuttings, unless you raise the height of the weir, which I do not think would be permissible.

5117. Would it be a costly work to make gates to regulate the flow of water into the creek from the Darling? It would be costly.

5118. Have you taken the level of the returns of those creeks? We have not.

5119. You say it would be inadvisable to place flood-gates at the entrance of the creek;—would any complication arise from the fact that the Upper Talyawalka and the Ten-mile Creek join and form the Lower Talyawalka? No complication would arise. I suppose you allude to the fact that some of the water goes back in time of high flood.

5120. I suppose you have no return showing how often these anabranches are filled? No; but I infer from the levels that have been taken that they have not run since 1891.

5121. Could you offer an opinion as to what utility to the country the filling of these creeks would be? I should think it would be of immense benefit from the fact of its giving those lakes a water supply. It would fill all that string of lakes if you could divert water in that direction for any length of time.

5122. Do you think, with such a cutting as you have mentioned, these lakes could be kept permanently full? I would not like to say permanently.

5123. It would prevent them from drying up? I think so. There would be such a supply put in in times of flood that any small rise afterwards would replenish the lakes.

5124. Can you explain why it would not be advisable to have flood-gates at the lower ends of these creeks, to conserve the water? I do not see what object they would have. They would only form a dam for a short distance. The water has to go in at the upper end before it can reach the lower end, and when you get the water down to the lower end it is bound to get away somewhere.

5125. The purpose is to dam the water back? Yes; but you must regulate the flow into the lakes. If you let the whole of the water go down, you will take the whole Darling.

5126. Presuming that a weir were constructed at the lower end of Talyawalka Creek, how far back do you think that would throw the water? Assuming that the banks of the Talyawalka Creek were as high as the banks of the Darling, I should say that it would throw the water back in a direct line 30 miles, equivalent to about 60 by the bed of the creek.

5127. It would also have the effect of preventing the emptying of the lakes and the billabongs? Yes, but the lake would be prevented again by the regulator immediately at the outlet of the lake.

5128. In order to conserve the water in the lake it would be necessary, not only to have a regulator at the in-take of the anabranches filling them, but also one at the entrance to each lake? I would not say at the entrance, I would say at the outlet, where the water would run out again.

5129. In reference to the 20-foot cutting in the Ten-mile Creek, what would be the distance along that creek that it would be necessary to make the cutting? As far as we had levels, it showed a distance of 6 miles. I think we should have to go further down the Talyawalka Creek than that, because the level there is 229 feet. It would not be an abrupt fall into the Talyawalka Creek, but a gradual one, so I think that the cutting there would be 20 miles long.

5130. Would that be equivalent to 20 miles of 10-foot cutting? Yes; that would be the average.

5131. What would be the length of the 11½-foot cutting on the Upper Talyawalka Creek? I think it would be 20 miles.

5132. Now, in reference to the filling of the lake on the western side of the river? Well, I start at the Tandure Creek. It fills by a short channel about half a mile long to the east of Lake Menindie.

5133. *Mr. Watson.*] From which pool would it be supplied? The one above lock site 17. The reduced level of that last pool is 182 feet. Unfortunately we have no levels of the lake; a survey was made when the lake was full of water, and I could only get the height of the lake at that date, and it was probably 191.16 feet. Probably the bed of the lake will be 187 feet.

5134. *Mr. Dick.*] The depth of the water would be about 5 feet? Yes, at that time. I find that the level of the water opposite Tandure Creek shows 182 feet. It would have to be 187 feet before it would run into the lake.

5135. *Mr. Watson.*] If the locks were completed the level of the water in the pools would be about the same as it was when we visited that part of the river? Yes.

5136. And that would not be sufficient by 3 feet? Not by 5 feet, approximately. We have no survey of the bed of the creek.

5137. What is the connecting length between the river and the lake? About half a mile.

5138. It would be easy to cut a channel 5 feet deep there? Yes. I think the people there would rather have the irrigation by floods than have the water shut in, because beautiful grass grows there when the flood goes down. A rise last year sent water over the bed of the lake, and after the water had gone down that was the only place in that part of the country where there was any feed.

5139. Do you know whether the bed of Lake Tandure is much lower than the creek that fills it? I think it must be 5 or 6 feet lower than the creek that fills it. There is a creek that runs out through the middle of it. The water has to rise above the banks of the creek before it gets over the bottom of the lake. The same lock would affect Pamamaroo Lake. They would all be affected by lock 17. In this case, no levels were procurable. The only thing we could get was the water-level, which was given as 190.82, on the 22nd October, 1892. The same remark that I made about Lake Tandure applies to Lake Pamamaroo; the water runs over the bed of the lake in the same way. There seems to be an immense body of water going by the creek. The water runs out about 4 miles before it spreads over the bed of the lake.

5140. Does the same thing apply to Lake Menindie? Yes; exactly the same thing applies there. The average height of the bed of Menindie Lake is 186 feet, so that it would take 4 feet more water than is shown by this lower pool to spread over the bed of that lake. The level of the water, the day that we passed that site, was, approximately, 180·5, that is about 18 inches below the proposed level of the pool, which is 182 feet. J. Granter.  
25 Oct., 1899.

5141. Could you state whether any material advantage would accrue to the people of that district from the permanent filling of this lake? I should think so.

5142. You are aware, I suppose, that a dam was built across the creek leading into Lake Menindie to conserve the water there? Yes.

5143. Could you sketch the history of that enterprise? I have only got it by hearsay. I heard that the dam was put down by the unemployed, and that it was done during a flood. It was merely done by means of sandbags tipped in whilst the river and the lake were full of water. I heard it said afterwards that the water had broken out. I think a high flood got in and broke round the end of the dam and washed the whole thing away, making a new channel. It left part of the dam but washed round the end of it.

5144. *Chairman.*] It made a sufficient outlet for the water to get away? It made a deeper creek than the original one.

5145. That would point to the fact that it would be necessary for the flood-gates to be very substantially and well constructed? Yes; and of sufficient area to carry a large flow of water.

5146. *Mr. Watson.*] Assuming that the weirs were constructed as proposed, it would not then require so large a flood as at present to cause the water to flow into the anabranches? I do not think it would take quite so much, but the difference would be very small, because, when these weirs become submerged, a flood then does not make a very great difference.

5147. With these weirs I suppose you start with from 6 to 16 feet of water in the bed of the river in the shallow parts? Yes.

5148. And a fresh coming down on top of that, which now would only rise to the extent of 8 or 9 feet, might then be just about sufficient to cause the Talyawalka Creek to flow? Yes; if you got 8 or 9 feet on the top of that, the Talyawalka Creek would flow, because some distance back from the weir it would raise the water. When you get the weirs entirely submerged, then a rise above that is inappreciable.

5149. Of course, the greater the height to which you raise the weir the sooner will any succeeding fresh run into those anabranches? Yes; no doubt it would run more quickly.

5150. What do you think would be the limit of the height to which you should raise the weirs;—it is a fact, is it not, that the banks are higher, speaking generally, on the upper part of the river than lower down? Yes.

5151. Consequently you could raise your weirs with safety to a greater extent there than on the lower part of the river? I am not prepared to go into the question of raising the weirs. Some hold that you could, and others that you could not raise them.

5152. Supposing that the result of the weirs being raised were to more frequently flood the surrounding country;—do you think that the people who hold that land would be in any way annoyed at having it flooded? No; I should think they would be only too pleased to have it flooded.

5153. It would probably result in greater certainty of a crop? It would give them grass, in any case.

5154. So that even if there were a danger of the weirs helping to flood the country more frequently, that would not be any drawback? No; I think it would rather do good than harm.

5155. During the visit of the Committee they noticed that site No. 3 seemed to be on a rather awkward bend of the river? Yes; that would be at Singleton Crossing.

5156. It looked as though it might be expected to silt up;—do you think there is any probability of that? The actual site is not in the bend. The bend would make it awkward for steamers approaching the lock. It is in a fairly straight place, and it is proposed to make it even straighter by taking a piece off the bank below the lock site.

5157. Is not the lock as difficult of approach now as the existing one near Bourke? I think it is very nearly as difficult.

5158. And would be as likely to be scoured by the action of the current? I am sure that the lock site is a good deal further away from the acute bend than the one at Bourke.

5159. You think that it is sufficiently far to be outside any large influence from the current? I would not say from the current. The current there is pretty strong. There is a good fall over those rocks. That is the reason why it was put there; it is the highest point we could get on the river.

5160. It is not possible, you think, to get a new site without going far down? Not with a rocky foundation, which is essential.

5161. *Dr. Garran.*] You were saying to Mr. Dick that a weir at the outlet of the Lower Talyawalka Creek would throw the water back for 30 miles by the course of the creek;—if we want to keep the whole of that Talyawalka Creek full after a flood we should have to make a series of these dams right away up? Yes.

5162. We could do it? Yes.

5163. Then you could store all the water that that creek would hold? Yes.

5164. Would that much water stand a year's drought? Yes; it would probably stand a three years' drought.

5165. What would be the average depth of it, if it were dammed up? It would be about 15 feet.

5166. Witnesses have told us that 15 feet in the lake is a very fair depth, and that it holds pretty well? Yes.

5167. You think that if that were stored right full, it would hold the water for three years? I am certain that it would.

5168. It is very seldom that a drought lasts more than three years? It would be very seldom that you would not get a river in that time.

5169. Eastward of the Talyawalka Creek, about the middle of its course, there is a very important series of lakes, which lie in a direct route between the Talyawalka Creek and the beginning of the Willandra Billabong;—do you know anything about the level of those lakes? No.

5170. A witness from Albemarle station told us that if we could raise the water, as you suggest, by a series of dams, we should have plenty of water running, and we should send a good deal of that water back into the lake? Yes; the object of the survey that was made was to see if we could not fill the lakes from the river.

5171.

- J. Granter. 5171. It is a good way back to the Darling? Yes.
- 25 Oct., 1899. 5172. It would be of immense advantage in that part of the country to fill those lakes at every flood? Yes.
5173. You think it is not impossible to do that? Not at all.
5174. It would mean a sufficient damming of the Talyawalka Creek, and we should have to make good channels back to the lake? Yes.
5175. But it would be only in flood-time that it could be done? Yes; and unless you altered the creek, it would have to be a very high flood.
5176. Those high floods come only once in four years? I think that the really high floods come only once in twenty years. The 1870 floods and the 1890 floods were high enough.
5177. You cannot say how high a flood it would require to send the water back to that lake? It would take a flood of about 45 feet. The 1890 flood, I think, went 47 feet on the Bourke gauge, and 45 feet at Wilcannia.
5178. Forty-five feet from the bed of the river? Yes; from the time the river ceases flowing.
5179. Have you been across from the Talyawalka to the Willandra Billabong? No; I have only been on the Willandra Billabong at its take-off from the Lachlan River.
5180. You know nothing of the levels between the two points? No; I think that some surveys have been made in that country.
5181. Going further up the Darling, there is a large lake called the Poopelloe? Yes.
5182. Does that fill with anything except a high flood? No; it requires a very high flood.
5183. Would it be a shallow lake then? I think it would.
5184. Would that go inland any more than the breadth of the lake itself;—is there any creek running eastward out of it? I do not know.
5185. I suppose there is a creek connecting it with the Darling? Yes.
5186. Does the herbage grow better after a flood in that lake than in the surrounding country? Yes; when the water goes off.
5187. Then the lakes are very valuable grazing ground after the water has dried up? Yes.
5188. They are too large and too shallow for purposes of water conservation? Yes.
5189. If they were less than one-tenth of their present size and ten times deeper they would be more suitable? Yes.
5190. Would it be possible to dam all these creeks, and when you got the water, to keep it? Yes.
5191. It would not pay the squatters to do it? I do not think it would, and their works are always liable to be carried away. At the Pamamaroo Lake there was a dam across the creek. I understand that the Menindie Meat Company put a dam across it, but it was washed away.
5192. Have you travelled from Menindie to Broken Hill? Never.
5193. You know nothing about Stephen's Creek? No.
5194. Do you know anything of the anabranches that take off from near Menindie down to Wentworth? No.
5195. In choosing sites for your locks, you have been compelled, for the sake of the foundation, to go where there were rocks? Yes, as far as practicable.
5196. And sometimes you have had to choose a place not so good as you wished, because it was the only place where you would have a good foundation? Yes.
5197. None of those locks are to be made in soft ground? No.
5198. Then you have to choose the lesser of two evils? Yes.
5199. You have not considered the question of raising the weirs? No; that is entirely an engineering question. I only deal with the surveys.
5200. If we contemplate providing water in the lakes and anabranches, the raising of the weirs in the first instance is a matter of primary importance, and should be thoroughly thought out before we determine the height of the weirs? Yes.
5201. I suppose the height of the weirs has been fixed purely with regard to navigation? Purely.
5202. The question of irrigation has been left out altogether? Yes.
5203. Mr. McKinney says he looks upon irrigation as the more important of the two objects to be served? I think the drawback to irrigation on the Darling is the height of the lift. No doubt every foot you raise the water by the weirs would reduce the cost of pumping, but I do not think the height that we can reduce it by locking the weirs would be sufficient to warrant irrigation.
5204. You saw the working of the shutter-weir at Bourke? Yes.
5205. Are you in favour of that principle? I do not know.
5206. If you were advising the Government to construct weirs, would you recommend solid or shutter weirs? I should certainly recommend solid weirs for the Darling.
5207. Are you afraid of sand silting up against the weir? Provision can be made against that by sluices.
5208. Do you think it better to have sluices or trust to the dredging of the river? I am in favour of sluicing.
5209. Would that be better than dredging the river? Yes; but dredging would be a necessity in any case—you cannot tell where the river might silt up.
5210. You think that a sand-pump dredge will be necessary? Yes.
5211. Then, if we have that, is there any need to have sluices in the dams? Possibly there may not be.
5212. You would have to lift the sluices before the flood got over the top of the dam? Yes.
5213. Would there be any risk of their getting choked? There might be; a log might come down in a low river and get into the sluice.
5214. All these complications make it undesirable to have these sluices? When I said sluices I lost sight of the fact that it was proposed to use a dredge.
5215. Would not a sand-pump dredge be sufficient for all practical purposes? I should think it would. One of those dredges can remove a bar of silt in a very short time.
5216. You think that the use of the sand-dredge would put the making of sluices out of the question? Yes.
5217. Have you formed any opinion as to the value of the water to the squatters in the neighbourhood? I think it would be a very great improvement to the country abutting immediately on the river. It would give the station-owners a shorter lift for their water. They all have little irrigation areas. It would enable

- enable them to pump more water than they can pump at present. When I was making surveys last year the river was practically dry, and a number of irrigation plants, and also scouring plants, had to be shut down. J. Granter.  
25 Oct., 1899.
5218. How did the fruit-trees stand it;—did they die? They managed to give the fruit-trees enough water to keep them alive. I know of no instance in which they died from drought.
5219. You have seen the river in one of its driest seasons, without any locks? Yes.
5220. Suppose all these locks had been built before last year, the flow of water down the Darling would not have been more than it was then? No.
5221. Did you provide for the waste of water by evaporation and the locking? The evaporation is a big item, but the waste by locking would not be very much.
5222. At present there is no supply except at that lock above Bourke? No.
5223. Well that is not a very large supply? I have not gone into that at all.
5224. You see how dry the river is;—could water have been spared for irrigation if the locks had been there? I think so.
5225. You could dry up the pool? There would be the fact of always having that amount of water there.
5226. You cannot afford to lower your pool? You have a foot or two to spare above the navigation level. It is proposed to make the minimum depth 6 feet, and you would not require more than four for navigation. If you gave them 5 feet that would leave a foot of water to spare.
5227. Still, if you have any large amount of irrigation, you would use more than a foot of water? Yes.
5228. It is not worth while to lock the river for irrigation unless you are going to have a large extent of irrigation? No.
5229. If you are going to have a large extent of irrigation you will take off more than 1 foot of water? Yes.
5230. Then, when we do that, what becomes of the navigation? It will cease.
5231. Then either navigation or irrigation has to go to the wall, unless you have a large storage of water somewhere? Yes; so it was proposed that we should keep a supply of water near the Brewarrina Rocks.
5232. There has been a suggestion of a reservoir somewhere I know? There is a very long flat reach of river there.
5233. Do you think it would be essential to have something of the sort? It would.
5234. As the scheme before us provides for no such reservoir, there will not be enough water in very dry seasons to provide for both irrigation and navigation? I should say not. The river was practically dry from about November, 1898, until the occurrence of this last rise. I think from November, 1898, until about March or April this year.
5235. I suppose that is about the longest period on record? No, I think not. I think that in 1884 and 1885 there was a longer period of dry river than that.
5236. Your evidence shows the difficulty there is in diverting the water from the river laterally, and it goes to show that we could not expect to irrigate much back country, under any circumstances, from the Darling? Yes.
5237. What irrigation would be possible would be on the banks of the river? Yes.
5238. On selected sites? Yes.
5239. And only that? Of course you desire to irrigate both kinds of land. Opinion on the subject is divided. Some people will tell you that you can only irrigate red soil, but you will see very good patches of black soil that are irrigated.
5240. In loamy soil there is a risk of crops being destroyed in case of flood? Yes.
5241. The risk of flood is not so great as the risk of drought? No; the risk of drought is the greater of the two.
5242. *Chairman.*] Although you do not care to give an opinion about the Bourke weir, will you say whether you would recommend a continuance of such a kind of weir for locking purposes on the Darling? I certainly would not recommend it.
5243. You would rather have a fixed weir? Yes. As regards the shutter weir, the impossibility is to make it water-tight. In a dry time we have seen the water running through the weir.
5244. At the very time you want to dam the water back it is difficult to keep the weir water-tight? Yes.
5245. And the process of raising these weirs is rather troublesome? Yes, it is tedious.
5246. And it requires two or more men to do it, and occupies a long time? Yes.
5247. With regard to the weir at Bourke, is it not self-evident that it is in an undesirable position? I think the mistake in regard to the Bourke lock and weir was that of placing the lock on the wrong side of the river. That was done to avoid possible collisions with steamers when the river was running over the lock walls.
5248. But, whatever the object, the result is that, above the entrance to the lock, a considerable sandbank is formed, which at the present time would almost prevent a steamer entering? Yes, that has been the effect of it, no doubt.
5249. With regard to the other sites for weirs that the Committee inspected, do you think they are the best procurable? Taking into consideration the conditions imposed upon us, that we were to get rocky bars for foundations, I think so. The reason for having the sites on the stony bars was the fact that they were the highest points of the river, and safe foundations. There is no doubt that, with a bigger survey of the river, we should find clay banks probably in better positions than some of the present sites. The rocky bars are the highest points of the river, and they are safe foundations.
5250. Do you think that all those sites could be made workable? I do. As far as my surveys have gone, they all could be. The Curranyalpa site is an admirable one.
5251. Do you think it is necessary that we should have that number of weirs for the purpose of backing the water to the height required at Bourke? I should not like to say that, because, if it is decided to raise them at any time, of course you could do with a less number.
5252. Raised to what extent? I could not say to what extent. The number that could be done away with would be regulated by the extra height.
5253. Suppose they were only raised a couple of feet, could you do with fewer weirs then? Yes. You could shift them a little further back, and probably do away with one or two of them.
5254. Mr. Darley in his last evidence was very emphatic that he could not recommend the raising of the weirs by more than 2 feet, because he said it would jeopardise the flooding of a large extent of country;—do you agree with that? I should not like to say. Of course, by raising the weirs, you would raise the water for a certain time. Then, after you get a flow with an even surface it is held by authorities that you practically do not affect the height of the floods. 5255.

- J. Granter. 5255. I cannot understand that position, because if by raising the weirs a certain height you make the water higher than a certain portion of the river banks, that must throw the water on to the land at the back of those banks? Yes.
- 25 Oct., 1899. 5256. Mr. Darley says that it would not be wise to put more than 1 foot on any of the 10-foot weirs, because by doing so you might flood the country where the banks are low? Certainly.
5257. I suppose it would be rather a serious thing to build weirs and flood the country? Supposing that you made your weir 11 feet high—the depth of the Darling is about 45 feet—it would not raise the flood-mark to any appreciable extent until after you got up to the height of the flood. Suppose the flood-level were 40 feet, and the height of the water 11 feet, the water would run on a pretty level surface after it reached, say, 20 feet; then any flood running on the top of that would have a very inappreciable effect, but a number of low places would be inundated.
5258. Of course there is a difference between flood-water and waters raised by artificial means, such as by the erection of weirs? Of course with regard to flood-waters, there is no remedy, but if by raising weirs you flood the country there is a remedy.
5259. That is a position that would have to be carefully guarded against? Yes.
5260. With regard to the erection of gates and weirs at the entrance of a place like the Talyawalka Creek, or the creek that runs into Lake Menindie, would that be a very costly work? It would be fairly costly.
5261. I suppose it would cost as much as locks and weirs? No.
5262. Not with the drains you would have to dig? That would be a big item.
5263. You would have to protect your entrance and the sides very carefully? Yes; you could put down your regulator at the entrance. The cost would be anything from £6,000 to £10,000. Then there is your cutting afterwards in the creek. That would be a big item, because you would have to cut so far away to let the country benefit by a small rise.
5264. It would be a large item? It would; but the whole channel would have to be large to give any flow.
5265. Do you think this work, if the Government undertook it, should be begun from each end, at the lower end, or at the top end? The lower end would be the better end to start at, but seeing that we have the Bourke lock practically finished, it may be a question whether it would not be better to follow them down from the upper end.
5266. As a matter of finance it would be better to begin at the upper end, because if we were to improve the river down towards Menindie it would take the trade away from us down the river? Yes.
5267. *Dr. Garran.*] Is the site next below Bourke a good site? Yes.
5268. Would it be worth while to make a practical experiment on that site? We have made one experiment which is not altogether a success.
5269. Would it be wise to make another before committing the country to a large scheme? I think it would be a very good thing.
5270. You think it would throw light on the matter? I do.
5271. If we made a solid weir? Yes. I may describe that first site. The first site below Bourke is distant  $38\frac{1}{2}$  miles; it is near Yanda station. The approach to it down the river is at the bend of the stream. Round the bend there is a good straight run in the river for a considerable distance, and as the rock extends some distance from the point of the turn, a lock and weir could be placed in such a position that the approach from either way would be easy, and the risk of the lake silting up very small.
5272. Do you think it would be advisable to make an experiment with the solid weir? I think it would be.
5273. Is there any anabranch that goes up between the existing site and this proposed new site? I do not think so.
5274. We have had some evidence that these anabranches have been mostly due to the obstruction caused by rocks; do you think that is at all likely? No, I think not, because I can point out an anabranch that starts away immediately on the top of a rock.
5275. Could it have been any obstruction offered by the rocks to the water that led to the diversion of the channel? No, I think not, because the rock on the river is on the same side as the anabranch, not on the opposite side.
5276. The argument has been that if the natural obstructions like rock have been the cause of these diversions an artificial weir would do the same thing;—do you think there would be any risk in building weirs that we should form new anabranches? I think not, at the height we are going.
5277. Certainly not on the upper part of the river? No.
5278. We are too far below the top of the bank? Yes.
5279. Then if we made this No. 2 weir we should have a pool  $28\frac{1}{2}$  miles long in which the water would always be navigable? Yes.
5280. You think it would be worth the money to try the experiment again? I think it would be.
5281. Can we alter the existing shutter weir, and make it a solid weir without much trouble? Yes. The foundations are in, which would do for the altered weir. It is only a matter of putting the extra amount of concrete on the top of that.
5282. Then if we were to make a solid weir, and find it a success, we could transform the shutter weir into a solid one? Yes.
5283. The bulk of the expenditure would still be to the good? The bulk of the expenditure is in the lock.
5284. The lock costs more than the weir? Considerably more. It is two solid walls 200 feet long, but the weir is only about 100 feet long.



PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

Locks and Weirs on the River Darling, between Bourke and Menindie.

APPENDIX.

A.

[To Evidence of C. G. W. Officer.]

IRRIGATION AND SETTLEMENT ON THE DARLING RIVER.

Sir

Kallara, Louth, New South Wales, 4 November, 1899.

When the Parliamentary Standing Committee on Public Works were leaving Kallara after their recent visit, I was requested to furnish some additional evidence re cost of irrigation as carried on on this station. Mr. Rostron, manager, has supplied a statement of cost, and this, together with a few general observations, I now have the honor to place before you.

Since 1889 we have had an area of eleven (11) acres under cultivation. For the first three years lucerne was grown, but was not found profitable, because of its requiring so much water in the summer.

Since 1892 wheat has been yearly sown, with more satisfactory results.

The following is a statement of cost:—

	£	s.	d.
Ploughing, 1 man, for 2 weeks, at 30s. ....	3	0	0
Harrowing, sowing, and rolling, 1 man, 1 week .....	1	10	0
Seed-wheat, 12 bushels, at 5s. ....	3	0	0
First irrigation—			
(a) Field hands, 4 men, 3 days, at 30s. ....	3	0	0
(b) Engine, 2 men, 3 days, at 30s. ....	1	10	0
(c) Wood, 6 cords, at 10s. ....	3	0	0
Second irrigation .....	7	10	0
Cutting, stacking, &c., 8 men, 4 days, at 30s. ....	8	0	0
Total .....	£30	10	0

In this statement, interest on, and depreciation of, plant are omitted, as, both engine and pump being used for other purposes, the sum to be charged to irrigation is merely nominal.

The pump used is a 6-inch centrifugal, driven by a 12 h.p. portable engine; and the height to which water has to be raised is 60 feet.

In fair seasons two waterings are sufficient; but, in a bad one like the present, three are necessary. In the statement above, two only are allowed for.

The crop of wheat from the 11 acres averages from 25 to 30 tons, and is used entirely for fodder purposes. The cost is, roughly, £1 a ton.

The ground under cultivation is of too clayey a nature to give the best results. It cakes very hard and cracks badly after being watered; and it may also be mentioned that the grading is bad, so that we actually use much more water than would be otherwise necessary.

Although under present conditions we deem it impracticable to grow enough fodder, artificially, to feed our general flock in times of drought, yet there is no doubt that it pays to grow sufficient to feed horses and stud stock. So convinced are we of this, that we purpose putting a much larger area under cultivation at a more favourable locality several miles up the river.

Although there is no doubt that it pays to grow crops by irrigation for fodder purposes, yet we consider the possibility of growing wheat in this manner to compete in the general market to be out of the question, and for the following reasons:—

- (1) Lack of sufficient suitable land along the Darling, where by far the greater portion consists of alluvial flats of much too stiff and clayey a nature to admit of successful cultivation.
- (2) Liability to floods, and consequent loss of crops and destruction of fencing and irrigation channels. Flood-water in this country has a most destructive effect on wire, so much so that whole panels of fencing will entirely vanish during a flood. It must be remembered that in this district flood-waters remain on the ground much longer than in the watersheds of the coastal rivers of New South Wales.
- (3) Lack of cheap transit for produce in many seasons.

*Artesian Bores.*

There are seven serviceable bores on Kallara, but more than double this number have been put down. In every one the supply of water has diminished since it was struck. In no case has the water proved useful for irrigation. The best bore, both as regards quantity and analysis of water, gave very disappointing results. The soil surrounding this bore is of a light sandy or loamy nature, and should be well adapted to cultivation; but although both lucerne and wheat were tried, the ground would only produce one crop, and not payable at that. The ground became very caked and hard, and in trying to grow the second crop the seed would not germinate. This piece of land remained barren till two good rains had fallen on it.

*General Remarks.*

The idea that closer settlement, in the form of irrigation farms, can be effectively accomplished on the Darling we consider utterly impracticable. It would fail even as the attempted closer settlement on 10,240-acre blocks has failed. We believe most of the homestead lessees would be only too glad of any chance to get out of their country. The manager of a station near Bourke told us the other day that there were 60,000 acres of homestead leases on his place alone that could be bought out for £500. At another leading station on the Darling we heard a similar tale. In many cases the homestead leases are reverting to the stations.

This country, on account of the extreme uncertainty of the rainfall and the frequent disastrous droughts, can only be made to pay in large areas, and even then it involves the expenditure of an immense amount of money, principally to provide an adequate water supply. Here we would point out that under the present Act, owing to the insecurity of tenure under which we hold our resumed area, a very large extent of country remains practically unimproved. In our own case none of our resumed area has been taken up by homestead lessees, as it is so remote from means of transit, besides having a smaller rainfall than the frontage country.

Profiting by other people's experience, who found that the improved portions of their resumed areas were the first to go, and that they did not get anything like adequate compensation, we have put a minimum amount of improvements on; but if we could get better tenure we should at once start to improve the country by putting down more tanks, dams, and bores, and erecting more fences. We could then carry more stock and employ more men.

Since

Since 1884 all this resumed country has practically remained undeveloped. By putting on improvements under the present Act we run the risk of having the improved country selected. Although it said we have "tenant-right," yet in reality it is in name only. We spend, say, £1,000 in making a tank to water a large area; a selector comes along and takes up a block of 10,000 acres with our tank in the middle of it. Now, the tank is much larger than he requires for his block, and although worth £1,000 to us may be only worth £250 to him, and this is all the compensation we would get. Is it likely that we are going to offer inducements in the shape of cheap water to the selector to take up our country.

The 1884 Land Act has been a huge failure, and has been a positive hindrance to the development of the country.

We hope that, in view of these things, and of the past few years of exceptionally disastrous drought and heavy loss, the Government will recognise that this country is unsuitable for close settlement, and give us, the present occupiers, who have borne the brunt of opening up an intractable country, a chance to get some return for the capital we have invested. Most of us who are here would gladly get out if we could, but we cannot, except at enormous sacrifice. This being so, we consider we may fairly ask the Government to give us some concession in the form of increased security of tenure, especially of our resumed areas. If we could get this under fifty or even twenty-five years' lease it would raise the capital value of all station property, and the country would be adequately improved, whereas now the great bulk of it is lying in a virgin state, without water and without fences, and a safe harbour for all vermin, especially rabbits and dingoes.

In the event of your requiring any further information or figures *re* conditions in this district, I shall be pleased to afford all the assistance I can.

I have, &c.,

GRAHAM OFFICER, B.Sc.

The Secretary, Parliamentary Standing Committee on Public Works.

### B.

TABLE SHOWING PARTICULARS OF THE SCHEME.

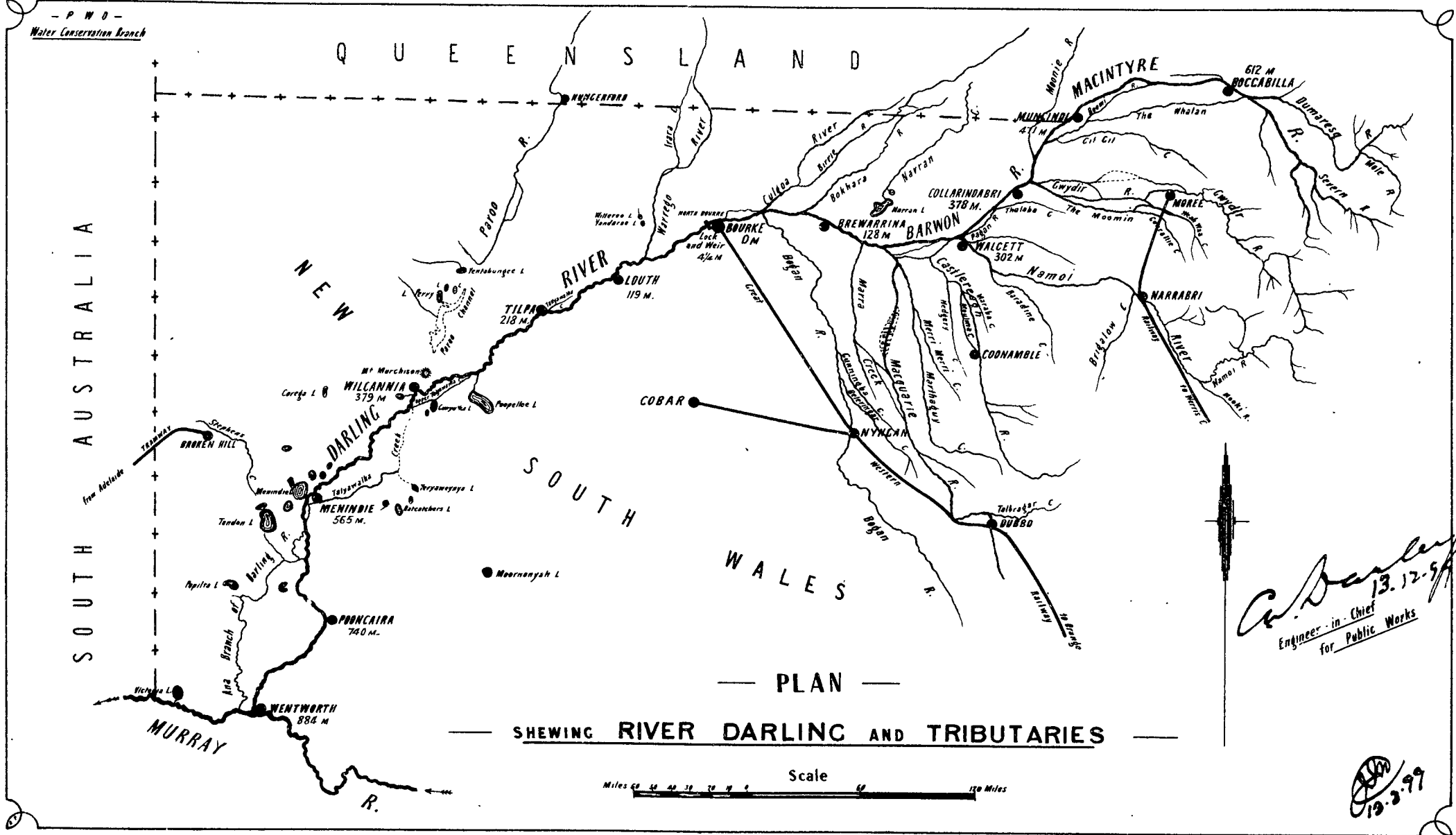
Length of river proposed to be locked.	Number of locks and weirs.	Dimensions of locks.	Lift.			Total rise and fall.	Minimum navigation depth in pools.	Approximate quantity of water impounded for 570 miles, taking average width at 200 feet and average depth at 11 feet.		Cost.	
			Minimum.	Maximum.	Average.			Estimated total.	Average per mile of waterway.		
miles. 570	17	feet. 200 × 37	feet. 6	feet. 10	feet. 8	feet. 137	ft. in. 6 6	cubic feet. 6,621,120,000	gallons. 41,382,000,000	£ 530,000	£ 930

Average distance apart of locks = 33½ miles (about).

TABLE showing extra quantity of water which would be impounded, and cost, if the Locks and Weirs be raised throughout by 1 foot, 2 feet, and 3 feet respectively.

ft.	cubic feet.	gallons.	£	£ s. d.
1	601,920,000	3,762,000,000	20,256	35 10 8½
2	1,203,840,000	7,524,000,000	41,914	73 10 8
3	1,805,760,000	11,286,000,000	68,491	120 3 2¼

[Two Plans and One Illustration.]







THE LOCK AND SHUTTER WEIR AT BOURKE.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## FLOOD PREVENTION IN THE HUNTER RIVER.

(REPORT BY C. NAPIER BELL, M. INST. C.E.)

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To the Honorable the Minister for Public Works,---

Sir,

Acting under your instructions, I arrived at Sydney on the night of 21st <sup>Itinerary</sup> March, and at once proceeded to read and make notes from the great mass of documents which, during the last thirty years, had been collected and stored at the Public Works Office, as well as to inspect the plans and sections made from the late Mr. Moriarty's time till quite recently by different engineers who had reported on this subject.

After an interruption for Easter holidays, on the 12th April I went to Newcastle, and, in a steam-launch, went up the Hunter as far as Pitnacree; also up the Williams and Paterson, and spent many days driving and walking all over the flooded districts, such as Miller's Forest, Phoenix Park, Largs, Dunmore, Morpeth, Wallis and Fishery Creeks, Bolwarra, and Oakhampton.

I then, according to your instructions, took such evidence on the subject of floods as people were willing to come and give me, which evidence, collected all over the district as far up as Muswellbrook, I have attached hereto.

On the 8th May I went to Muswellbrook, and drove all over the Upper Hunter district as far up as Page's Creek; also up the Goulburn as far as the bridge; to Denman and to the site of the proposed dam for an impounding reservoir; to the mouths of all the large creeks or tributaries; then to Singleton and all over that district; and, on the 17th May, back to East Maitland, where I stayed to make plans and calculations, and write this report.

Although all particulars respecting the Hunter and its floods, and the conditions which give rise to the flooding of the lower districts, have been repeatedly set forth in much detail in many previous reports since 1869, I think that, to make my report better understood, it will be necessary to repeat some of what has been said so often, if only to avoid the necessity of referring back to previous originals. Former Reports.

The first very complete report on the floods of the Hunter was made by the late Mr. Moriarty, Engineer-in-Chief for Harbours and Rivers, in 1869, who, in making minute calculations of flood discharge, and the distribution of flood-waters over different parts of the flooded districts, has left to subsequent investigators almost the only data that there is on the subject, and everyone after him has taken his observations and calculations as the basis on which they deal with the question.

Mr. Moriarty, after indicating what might be done to mitigate the disastrous effects of these floods, was possibly deterred by the magnitude of the phenomena he had before him, and only recommended some slight palliative measures, which he thought might relieve the West Maitland and Bolwarra districts. At the same time he expressed a warning of the danger that would be incurred if West Maitland Mr. Moriarty's Report.  
erected

erected high embankments round the town; if it were attempted to block the flood overflow at Cummins; if the great backwater of Wallis and Fishery Creeks were shut in by flood-gates; or if people were allowed to embank the lands of Bolwarra.

Royal Com-  
missioners'  
Report, 1870.

In 1870, the Government appointed a Royal Commission to investigate the subject of the Hunter River floods, which they did in a very exhaustive manner, and collected a great quantity of evidence from residents and others who knew all about the floods; but the result of their investigations was that the Royal Commission was unable to recommend anything to be done, evidently under the impression that as much harm as good might arise from undertaking any work to mitigate the floods. The Commission reiterated the warnings of Mr. Moriarty not to close the flood overflow at Graham's (or Cummins), not to raise the embankments round West Maitland, not to shut the floods out of Wallis and Fishery Creek valleys, and not to embank the Bolwarra lands.

Mr. Gordon's  
Report.

In 1890, Mr. Gordon made a very complete report, accompanied by a large number of plans, sections, diagrams, and calculations. He remarked that it was impracticable, or even preposterous, to attempt to "take off the top of the flood" by diversions to Port Stephens or Lake Macquarie, or from Wallis Creek to Hexham; and I quite agree with him that it is so.

Mr. Gordon made two recommendations: One was the construction of about six impounding reservoirs on six of the upper tributaries and larger creeks, by which a great flood should be held back until the flood water from the lower river should have passed by, when the water held up in the six reservoirs was to be let go; the effect being that only about half a flood was to come down at a time. This project was to be accompanied by some comparatively slight works in strengthening the most crooked parts of the river between Maitland and Morpeth, and some small amount of dredging below Morpeth. Mr. Gordon favours this project on account of less cost, quicker construction, less interference with rights of property, and more certainty of effecting the desired object of keeping down the height of high floods.

He discussed the project of widening and deepening the whole of the river from Hexham to Morpeth, but dismisses it for his less costly project of diverting and shortening the river, by his diversion called No. III, from Eales' Flat to near Hexham.

Mr. Gordon's second recommendation, therefore, is to make a diversion of the river between the Horse-shoe Bend at West Maitland and Morpeth, called No. II, to widen and deepen the river from Morpeth to Eales' Flat, to cut a diversion from Eales' Flat to near Hexham, called by him No. III, of a dimension to carry 108,000 cubic feet a second, leaving 53,000 cubic feet a second to flow in the present main river round by Raymond Terrace, and finally to deepen and widen the main river from above Hexham, where his diversion No. III comes out, to Ash Island; the stuff excavated, both in diversions and main river, to form embankments on each side to keep floods within them.

He estimates the total cost of making the six reservoirs, with the reduced amount of dredging, protective works, &c., at £714,565, and the cost of making diversions II and III, with the necessary dredging, at £664,500.

Mr. Darley's  
Report.

Mr. C. W. Darley, Engineer-in-Chief for Public Works, objects to Mr. Gordon's project for six reservoirs as being much under-estimated; and thinks that under the conditions which frequently obtain during floods, such as floods coming in pairs, or occasionally several floods following each other, that it is doubtful whether the floods in Upper Hunter could be retained in the proposed reservoirs before another flood came on top of them; and that if the water in reservoirs was let out after a flood the effect would be that the river would be kept in half flood, or bank full, for double the length of time which it naturally is now; and that this state of things would be more injurious to farmers than a big flood coming and going in its own time.

Mr. Darley objects to Mr. Gordon's project of diverting and dredging as greatly underestimated, and as injuriously interfering with the navigation of the river, and the water rights at Raymond Terrace and settlers along the banks; he thinks that the river would silt up from Eales' Flat to Raymond Terrace; and from Raymond Terrace to Hexham the navigation would be seriously impeded, if not assisted by expensive training walls.

Mr. Walsh's  
Report.

Mr. H. D. Walsh, District Engineer, Harbours and Rivers, Newcastle, in 1894 proposed making a diversion, called the Bolwarra flood channel, along the foot of the hills on the Bolwarra side from Hayes' Lagoon to Largs, to come into use when the

the river rose to the 20-foot level at Belmore Bridge ; to discharge 20,000 cubic feet a second ; to enlarge the river where this diversion entered it at Narrowgut Reach to Morpeth, at an estimated cost of £118,000 ; to make an overflow channel from above Pitnacree Bridge into Howe's Lagoon, and from there into the main river, at estimated cost of £11,200 ; to make an overflow channel from Duckenfield to Greenaway's Creek, estimated to cost £50,000 ; and to remove some of the rock at Green Rocks at a cost of £6,000.

In 1897 the late Mr. Price, C.E., having carefully inspected the whole district of the Hunter and its tributaries, found a site 9 miles below Denman which he considered suitable for a dam for an impounding reservoir, which would hold so great a quantity of water that Mr. Gordon's six reservoirs would all be contained in the one, and a great deal more—in fact, with a dam 130 feet high it would hold the unheard-of quantity of forty thousand million cubic feet of water. Such a quantity would very probably be more than any one flood from the Goulburn and Hunter Rivers, below the junction of which the dam is situated, and Mr. Price emphatically recommended the adoption of this system of mitigating the Hunter floods, and added his conviction that no other method would be successful.

Mr. C. W. Darley, in his report on Mr. Price's project, repeats the objections he urged to Mr. Gordon's similar project, and states his opinion that, beside the injury of keeping the river in half flood for double the natural time, that it would be difficult, if not impossible, to handle this vast body of impounded water so as to give the relief sought and not to do harm ; and he calls attention to the danger to all people in the valley below, of having this body of water stored above them. Mr. Price also referred to the possibility of utilising the water in his dam for irrigation ; but Mr. Darley shows that, under the circumstances, this would be impracticable, as it would not be possible to make the impounded water serve two purposes diametrically opposite to each other.

The above reports, with a great mass of evidence, and no end of plans, sections, cross-sections, &c., are the data which I find at hand—in fact, nothing could be more complete than the information of this kind collected during the last thirty years. The only thing left in doubt is the quantity of water discharged in high floods, which it is almost impossible to measure correctly, unless one took measurements of current velocity during a flood at the cross-section of the river under trial ; and this has never been done.

The watershed of the Hunter, with its tributaries, contains 9,127 square miles, of which the Williams and Paterson have 857 square miles, leaving 8,270 square miles as the watershed of the Hunter proper. This may be divided into the Lower Hunter, between Maitland and the sea, 1,095 square miles ; the Central, between Maitland and the junction of the two main rivers, the Hunter and Goulburn, 1,944 square miles ; and the Upper District, from the junction to top of watershed, 5,230 square miles.

The Williams and Paterson tributaries, at the lower part of the river, have each a tidal part of about 20 miles up from their mouths, beyond which they enter the hills and reach the top of their watershed in a distance of about 50 miles. The Hunter, Paterson, and Williams all head up in the same range of mountains, which are from 2,000 to 4,000 feet high.

The Hunter is tidal to West Maitland, a distance by the river of 44 miles from the sea at Newcastle. From Maitland to the junction of the Goulburn the bed of the river rises at the rate of a little over 2 feet per mile, and in this stretch it receives four large tributaries which bring down heavy floods. From the junction of the Goulburn, both rivers rise more rapidly to the top of their watershed in the Liverpool Ranges about 4,000 feet high.

The Hunter Valley, from the sea to very near the top of its watershed, is the finest and most fertile valley I have seen, and I do not think there is any like it in these Colonies. Flats of the richest alluvial soil, from half a mile to 4 miles wide, form its meadow lands, and higher terraces of alluvial soil in many places make the total valley from 5 to 12 miles wide.

The upper valley—that is, from Maitland upward—has its meadow lands heavily flooded in high floods ; but as the people do not generally live on the flooded land, the farmers and graziers do not object to the floods, which, they say, greatly enrich and refresh the soil. Singleton and Denman stand on the flooded ground, and in consequence suffer damage when high floods occur.

At



The Lower  
Valley.

At Maitland the valley becomes more flat, and spreads out in great alluvial plains, through the upper part of which, from Maitland to Morpeth, the river winds and turns in a most unusually crooked course; so that although the straight distance is  $3\frac{1}{4}$  miles, the distance by the river is  $14\frac{1}{2}$  miles. But lately the effect of closing the great backwater of Wallis Creek, and embanking the Lorn and the Bolwarra land, the floods have become more violent at this part, and have broken through three of the bends and reduced the length of the river between Maitland and Morpeth from  $14\frac{1}{2}$  to  $8\frac{3}{4}$  miles.

From Morpeth to Newcastle the river continually increases in width and depth, probably under the action of the tides; and although it has great turns and loops, it is nothing like so crooked as above Morpeth. At 28 miles from Newcastle the Paterson joins the Hunter, and at Raymond Terrace, 19 miles from Newcastle, the Williams comes in. Both of these tributaries flow in winding courses through rich alluvial flats, also heavily flooded by the obstruction which the Hunter offers to the discharge of their own waters.

Although the tide reaches to Maitland, where it has now a range about 18 inches, but formerly about 3 feet, the bed of the Hunter has a gradual slope from Maitland to Ash Island, the depth increasing from 3 feet to about 20 feet below water. The surface of the land also slopes, though irregularly, from about 28 feet above low-water at Maitland, to about 6 feet above low-water at Ash Island, which is close to Newcastle. In most places the banks of the river are from 4 to 6 feet higher than the land further back from the river.

Wallis Creek.

Just below West Maitland two creeks called Wallis and Fishery Creeks enter the river, which, coming from the south-west, flow for nearly 10 miles through wide flat valleys of rich alluvial soil, which valleys, before flood-gates shut them in, were filled at every flood by backwater from the Hunter; and as these valleys are very low, a flood in the Hunter used to store in them an enormous body of water.

Cummins'  
overflow.

Three miles above Maitland there is a low place in the right bank through which the floods used to overflow to the extent, according to Mr. Moriarty, of about 20,000 cubic feet a second, and pouring through what appears like an old channel of the river, discharged into the valley of Wallis Creek; so that in a flood, Maitland became an island with the flood in front and behind it. Maitland is situated on the naturally raised bank between the river and this overflow, and the highest known flood, that of 1820, nearly topped the highest part of this position.

Extent of  
flooded land.

The alluvial plains of the Lower Hunter, which are subject to be flooded, are estimated at from 35,000 to 40,000 acres; but so fertile is the land that each acre of them is worth at least ten acres of possibly any other land in the country, with the exception of similar land on the Northern rivers. The selling price of this land varies from £60 to £20 an acre.

The floods.

Floods in the Hunter are so extremely irregular that farmers cannot make any provision against them. A high flood may occur twice or even six times in a year, or there may be many years without any high flood. Floods in winter do not cause so much loss of crops, but those of summer frequently kill or greatly damage them. The flood of 1857 is said to have caused damage to the amount of £150,000, and that of 1893 very much more.

The town of West Maitland is partly inundated by all high floods; in that of 1893, parts of the town were under water from 3 to 12 feet deep, damaging goods and furniture very seriously. The entire width of the valley between Maitland and Morpeth, about 2 miles from hills to hills, was flooded in 1893 to various depths from 3 to 15 feet deep, and numerous dwellings built on the highest spots were surrounded by water, some up to the eaves of the roof.

As the land is chiefly devoted to the cultivation of lucerne, with patches of maize, sorghum, potatoes, &c., few cattle are pastured on the fields; but every farm keeps cows and horses, which, if the flood comes gradually, may be driven away to the low hills which bound each side of the valley; but a sudden flood like 1893, rising to its height in the night, was the cause of a great number of cattle and horses, besides pigs and fowls, being drowned.

People do  
not take  
precautions.

It is to be observed that the people are to blame for much of the damage and inconvenience they suffer, for whereas in Queensland houses are built with the floors raised from 6 to 9 feet above the ground, here the people build with floors flat on the ground. In West Maitland, in situations liable to be deeply flooded, numbers of houses are seen with the floors lower than the street, and it would seem as if no efforts

efforts are made to try and remedy the inconveniences of their position. I was told of houses washed away near Raymond Terrace, but rebuilt just as before, with the floors flat on the ground.

I have said above that the inclination of the bed of the Hunter from Singleton to Maitland is about 2 feet a mile; but after passing West Maitland it curves about in such an extraordinary manner that its fall is not quite half a foot per mile as far as Morpeth; whereas, if it had a straight course, its fall would still be 2 feet a mile. The consequence of this is that as soon as a high flood reaches Maitland it overflows and covers the whole valley. The crooked river channel then becomes inoperative; so that when most wanted there is no channel between Maitland and Morpeth, and the river takes charge of the valley 2 miles wide. The flow in the channel under these conditions being nearly stopped, it is extensively silted up; and although to some extent this silting is cleared away by smaller freshes which do not overflow, yet the channel in the crooked parts is far shallower and narrower than in other parts where the flow of the flood is not checked.

The whole of these plains have been formed by deposits from the river, the soil being a sandy loam, with beds of sand through it. Every flood lays down on the land a new deposit of silt or sand; but it is noticed that the flooded area between Maitland and Morpeth (including the valleys of Wallis and Fishery Creeks) are being silted or warped with great rapidity. Thus I am told of places which were lagoons or swamps thirty years ago and are now cultivated; in other places fences are silted up to their tops; and I was shown a house near Pitnacree which, some years ago, was built with its floor 3 ft. 6 in. above ground, but is now level with the surface.

This rapid silting of the country between Maitland and Morpeth is due to the crooked course of the river channel causing the floods to overflow more frequently, and it receives the first tribute of silt before those parts lower down. All this valuable warping, which is making higher and better land, will be entirely stopped by the embankments which the people have put up to keep out the floods.

It is generally believed that the fertility of this land depends on the periodical top-dressing of silt which floods lay down, and instances are given where land has been enclosed by embankments for many years that its fertility is seriously impaired. If this is true, then those lands from which floods are excluded will in time have to resort to manure, which would be a heavy tax, possibly amounting to more than the former loss and damage by floods.

This, however, is a question which the farmers seem to have made up their minds about; for, since the reports of Mr. Moriarty and the Royal Commission, all of whom deprecated the embanking of the flooded land, the whole of the left bank has been embanked from Bolwarra House to Largs; also the great flood overflow at Cummins has been closed by a stop-bank, the right bank has been embanked from Oakhampton to Maitland, the town is surrounded by banks, and the great back-water of Wallis Creek is closed by flood-gates; the right bank is further embanked from the flood-gates to Pitnacree, and a great part of the Phoenix Park is enclosed.

The Bolwarra and town embankments are made up to 1893 flood level, so is the top bank at Cummins; but the top of the Wallis Creek flood-gates is 7 feet below 1893 flood level. Thus everything that Mr. Moriarty and the Royal Commissioners warned them not to do has been done. But the Commissioners warned them that if they did these things the banks would break under some great flood, and no one could tell what would happen. Strange to say the great flood did come in 1893; all the banks gave way, and nothing particular happened in Maitland with the exception of much goods and furniture spoiled.

The late Mr. Price shows that in the great flood of 1893 the rainfall in twenty-four hours over the Lower Hunter district (see page 7) was 13 inches, on the central area 9 inches, and on the upper district 4 inches. From evidence given me I believe the rainfall in the upper district was greater than 4 inches; for at Denman it was 5.1 on the 9th March and 2.1 on the 10th; and at Muswellbrook they say it was 9 inches, but possibly this may be for the two days 9th and 10th March, and in any case a rainfall in twenty-four hours should not be taken as the measure for a great downpour lasting perhaps three days, and resulting in a high flood.

Mr. Moriarty, from very uncertain data, reckons that the flood of 1857 was caused by a rainfall of 5 inches over the entire centre and upper districts. But the 1893 flood was about 6 feet higher than that of 1857.

All

Behaviour of  
floods.

All previous reports notice the extreme irregularity of the Hunter floods. A diagram by Mr. Gordon, attached hereto, shows that from 1856, while there is one interval of ten years without any flood, there were six floods in 1870 in three months, and it is also noticed that floods frequently come in pairs, separated by one or two weeks. In the last twenty-five years there have been eight high floods, which, at Singleton, ranged in height above summer level from 38 to 47 feet.

According to Mr. Moriarty, the distance by way of the river from Singleton to Maitland is 49 miles, and the 1857 flood took twelve hours to travel that distance, while it took six hours to travel from Maitland to Morpeth, about 17 miles, by way of the river; but from Muswellbrook to Singleton, which is a shorter distance than from Singleton to Maitland, it took forty hours. These times are for the crest of the flood, and do not indicate so much the speed at which the flood travels as the time the flood takes to fill all the wide spaces that are inundated; so that there must be a great deal to fill from Muswellbrook to Singleton; less to fill from Singleton to Maitland; and more to fill from Maitland to Morpeth; and the flood can only attain its crest height when these places are filled.

Maximum  
discharge of  
floods.

The maximum quantity of water carried by a high flood I find to be most difficult to arrive at, as there are no observations at the particular places where the whole of the flood passed. Thus, Mr. Moriarty gives the discharge of 1857 flood at Singleton as 131,416 cubic feet a second. That was the quantity flowing in the channel of the river, but he omitted to estimate the great body of water which was flowing 2 miles wide over the fields south of the town.

Then Mr. Moriarty has given the discharge of the river channel at Oakhampton at 132,283 cubic feet a second, but omits to estimate what flowed through the overflow at Cummins and over the banks between Oakhampton and the section he took. But if he had taken his section above the overflow at Cummins (or Graham's), where the whole river has to pass, he might have found the quantity to be about 154,000 cubic feet a second; although this is uncertain, because one can only assume the gradient of the flood surface at this place.

Floods of  
Williams and  
Paterson.

It is well known that the Williams and Paterson generally receive the first of the rains, and, bringing down their floods, fill up the lower river before the Hunter comes down with its flood. Usually the floods from these lower tributaries have had time to subside considerably before the main flood arrives; at other times the two floods meet before the Paterson and Williams have had time to subside; and all these circumstances make the floods extremely irregular in height and duration.

It is also noticed that usually the Hunter flood comes down in a double wave, the first being caused by the large tributary creeks between Denman and Maitland, shortly after followed by the main flood out of the Hunter and Goulburn.

This feature is indicated, but not very clearly shown, in the 1893 flood, which at Singleton attained its maximum height on Thursday, at midnight, and soon afterwards commenced to fall very slowly; on Friday it was falling rapidly, and on Saturday the flood had gone down. At Maitland, on Wednesday, at midnight, the flood had risen 30 feet, and continued slowly rising till Thursday night; it then rose more smartly, and at 4 p.m. on Friday attained its top height of 37 feet.

This does not show, as people assume, that the Cockfighter and other tributaries below the junction of the Hunter and Goulburn are capable of raising the flood at Maitland to nearly the height that the combined flood of the Hunter and Goulburn does; because the flood from the Hunter and Goulburn, long before attaining its top height at Singleton, has already helped to fill the river-bed all the way to Maitland; and if the Hunter and Goulburn had been kept back by a dam, the flood from the tributaries below it would have been insignificant.

Observations of this kind are not accurate, and may be misleading. The only way to get accurate knowledge of the floods in their courses is to have stations every 4 or 5 miles along the river, accurately levelled from one datum, and when flood occurs to take gauge readings of the rise of the water at the same time at every station; but this is not likely to be done, as it would require a number of persons kept on the look-out, for no one can tell how long.

Mr. Moriarty remarks about this first wave, that it rises with great rapidity, but rarely attains a dangerous height, and soon commences to subside; but before it has had time to get away through the crooked channel between Maitland and  
Morpeth

Morpeth it is overtaken by the second wave, and the flood then attains its greatest height; and a section herewith, taken right across the valley from Morpeth tram-line to the hill at Largs, shows the condition of things in 1857 and 1893 floods.

There have been numerous projects advocated for reducing the height of floods in the Lower Hunter, all taking the form of relief or overflow channels. One proposes to cut an overflow channel to Macquarie Lake; another to cut a relief channel from Wallis Creek to Hexham; another to cut a relief channel from Raymond Terrace to Port Stephens. These projects are utterly impracticable, and need not further be considered. Projects for lowering floods.

Then we have Mr. Gordon's project to cut a relief channel from Eales' Flat to the river above Hexham to carry a part of the flood, leaving the remainder to flow round by the main river by way of Raymond Terrace; and finally we have Mr. Price's project of a great impounding reservoir below Denman.

If floods carried nothing but clear water any of these schemes might work well; but it must not be forgotten that vast quantities of silt and sand are also carried, and any diminution of the body of water is at once attended with the process of silting-up. For this reason, if there is to be any shortening or diversion of the river, it should be the whole river or not at all. Uselessness of diversions and relief channels.

Every one must have observed that if part of the water is taken away from a river, the channel at once silts up to correspond with the lessened quantity of water, so that floods will not be lowered in this way.

On this subject a highly scientific and experienced engineer, Mr. J. G. Morrison, in a lecture delivered at Shanghai in 1888, remarks:—"When the Chinese have been troubled with floods in their rivers, they have always been too ready to cut extra channels to carry off the surplus waters. This is, as a rule, the exact opposite of what should be done. The extra channel lowers the velocity, the river deposits more silt, the bed rises, and the level of floods becomes worse than ever."

Also, Mr. Gustav Deyer, speaking of the work of the Mississippi Flood Commissioners, remarks:—"Outlets in any form, whether waste weirs, reservoirs, or waterways connecting directly with the sea, all come under the same head, and require the same treatment; each part of the volume of which the main channel is temporarily relieved will require a proportionate expenditure for construction and maintenance, and the object in view will fail of accomplishment. The Mississippi Commission has accordingly striven to raise the levees and dredge the channels, and concentrating the scour by groins, so as to get uniform velocity."

The prosperity of the whole district depends on the harbour at Newcastle, and any tampering with the river will certainly result in affecting the depth of water on Newcastle bar, which is maintained at its present depth by the existing flow of the river, flood waters, and tides together; and if any considerable quantity of flood-water were taken out of the river, whether by relief channels or impounding reservoirs, some injurious effect would most likely be felt on the bar. In fact, the bar as it is may be too narrow or too shallow for the tidal basin inside, as is seen in Mr. Moriarty's tide diagram, which shows that high-water spring tide is 1 foot 6 inches lower at Hexham than it is at sea, indicating that the flood-tide of high-water springs is throttled either at the bar or among the shallows of Bullock Island. Newcastle Harbour may be affected.

The entrance at Newcastle is constantly threatened by the encroachment of the sand-spit on the north beach, which has increased greatly during the last thirty years, and the Harbour-master tells me that in the absence of floods the bar slowly silts up, but every 20-feet fresh clears it out again (meaning 20 feet of flood on Maitland gauge). If that is true, then a great flood with a velocity of 8 knots over the bar might clear away the accumulations of years both on and round about the bar.

It may be useful for future reference to note here that the tide at Newcastle seems to have had very little effect on the 1893 flood; thus, at low-water, when there should for that day have been 1 foot on the tide-gauge, it showed 6 feet; and at high-water, when it should have stood at 6 feet it showed 6 feet 8 inches. Also, the velocity of ebb-tide over the bar is about 6 feet a second, while that of the 1893 flood was about 13 feet a second.

Before I can discuss any proposals of my own for mitigating the floods I must state my objections to the previous proposals of Mr. Gordon and Mr. Price. Objections to previous projects.

Mr.

Mr. Gordon proposes to cut a straight diversion of the river, called by him Diversion No. II, from the Horse-shoe Bend, near Maitland, through Howe's Lagoon to the bend at Morpeth, the diversion to carry the whole flood which he takes to be 140,000 cubic feet a second. In the making of this diversion he adopts it only on condition that the whole of the river below Morpeth be so improved that it can take away the extra quantity of water which the Diversion No. II will bring to Morpeth over and above what comes to Morpeth now; or, as he says, to enable the lower river to take away the flood which at present is retarded at Maitland.

From this it follows that the river channel is to be enlarged from Morpeth to Eales' Flat. At Eales' Flat, in order to keep down the height of floods, and save the expense of enlarging the river channel between Eales' Flat and Raymond Terrace down to Hexham, he proposes to cut Diversion No. III, which, leaving the river at Eales' Flat, shall cut through the rock ridge (to be seen on plan), then through Miller's Forest, and out again into the river near Greenaway's Creek, 3 miles above Hexham.

At Eales' Flat he has increased his quantity of flood by 21,000 cubic feet a second, which he takes as the flood discharge of the Paterson, his total being 161,000 cubic feet a second. Of this Mr. Gordon proposes to pass 108,000 cubic feet through Diversion No. III, leaving 53,000 cubic feet to flow through the main river round by Raymond Terrace to Hexham.

At Greenaway's Creek, which is the outlet of No. III, he adds 22,000 cubic feet for the flood of the Williams, making a total of 183,000 cubic feet, to carry which he proposes to enlarge the river channel from Greenaway's Creek to Ash Island, where the river splits into two channels, which he infers, I presume, will carry the quantity without much alteration of height over its present flood rise, and so on to Newcastle and the sea.

In the above scheme I quite agree as to the advantages of Diversion No. II; but I do not admit that, as a consequence, it is necessary to enlarge the river below Morpeth, or, in fact, to do anything at all to the lower river in consequence of making Diversion No. II. The reasons for this will be stated further on.

Respecting Diversion No. III, I said above that I do not believe any diversion will be successful unless the whole river is turned into it, and, consequently, that it would be a useless expense to turn a part only through the diversion. It cannot be said of this diversion, as of many other short cuts in rivers, that the river in time would take charge, and pass entirely through, because it cannot do so on account of the rock cutting at the ridge mentioned above. But if the main river had 108,000 cubic feet taken away from it, and was left with only 53,000 cubic feet, no one can doubt that it would rapidly silt up to fit its diminished requirements. It would become half as deep and much narrower than it is now. I do not think anyone can predict exactly what would happen in this case, because so much depends on the nature of the sediment that would be lodged with floods. With the shingle and heavy sands of New Zealand rivers, I should say that in such a case the main river would finally close up altogether, considerably raising the height of floods, and flowing with increased depth and velocity through the diversion. However, I can only say with confidence that the main river would silt up considerably, and block the navigation between Hexham and Eales' Flat.

Again, as long as the main river below Eales' Flat kept its present depth and width, the making of Diversion No. III would, of course, lower the height of floods at Eales' Flat and Raymond Terrace; but when the main river had silted up to fit its new conditions, the floods would be as high as ever.

The proposal which Mr. Gordon favours as a more certain and quicker-executed remedy for the floods is to build on the upper parts of the Hunter and Goulburn, and on four of its large tributary creeks, six impounding reservoirs capable of holding back half a great flood. No one knows what these six reservoirs would cost, because the sites for them are not yet known. Mr. C. W. Darley, in his report on Mr. Gordon's scheme, thinks they would cost much more than Mr. Gordon estimated. Without knowing where these reservoirs would be placed, I can only infer that if they were placed high up in the steep and rocky parts of the rivers they are to dam, they would hold too little water to be of any use; and if they were placed in the lower parts, they would inundate and render useless just as much land between them as Mr. Price's great dam below Denman would do, and all of these creeks have beautiful fertile valleys in their lower parts. Although the danger to people in the

main

No. II  
Diversion.

No. III  
Diversion.

Six reser-  
voirs.

main valley would be less than with Mr. Price's dam, the difficulty of handling and letting out the stored-up water so as to produce the desired effect would probably be even greater than in one big dam.

Works of this kind cannot be looked on as permanent, because the holding capacity is diminished by every flood, or small fresh, which lodges gravel, sand, and silt in the reservoir; and the smaller the reservoir, the shorter is its life from this cause. Take, for instance, the following example:—In 1874, the Selwyn (N.Z.) County Council erected a concrete dam across the Kowai River, with the object of raising the water sufficiently to flow through a tunnel to irrigate the higher plains. The dam was about 22 feet high above the bed of the river, and dammed the river back in a lake about a mile long. In 1883 I had to report on the tunnel, the invert of which was being cut up, and to my astonishment I found the lake filled up with shingle and sand level with the top of the wall; just a pot-hole was with difficulty kept open to supply the tunnel, and the scouring sluice was buried in sand and would not work.

Such works  
not perma-  
nent.

Of course in a case of this sort the silt and sand in the river below the dam would be greatly diminished, and might even relieve much of the necessary dredging at Newcastle; but the evil would only be evaded not cured, for when the dams had silted up the position would be as bad as ever. In many reservoirs tanks are provided to catch the detritus before it enters the main reservoirs, which have to be cleared out from time to time; but one can hardly imagine the labour it would take to clear out the stuff brought down these great creeks in a flood. It is also to the point to observe that usually reservoirs are very large and are supplied by small streams, but here the reverse of this would obtain, and the effect might be that, although ordinary reservoirs may last 100 years without having their holding capacity impaired by silting up, reservoirs of this character might not last twenty years.

In order to form an opinion of the late Mr. Price's proposal to mitigate the heights of floods by means of a flood storage reservoir, I went to see the site of the dam he proposed to build, which is about 9 miles below Denman and  $6\frac{1}{2}$  miles below the junctions of the two main rivers Hunter and Goulburn. I also examined the valleys of each river for some distance above Denman.

Mr. Price's  
proposed  
dam.

The area of land that would be inundated when the dam was full would be according to the size of the flood that was retained. That of 1893 might require the dam to be of the full height of 130 feet as proposed, when the land submerged would be about 23,000 acres, the 1857 flood proportionately less.

The whole of this land is of excellent quality, quite as fertile as that of Pittacree or Bolwarra. It produces lucerne, maize, wheat, sorghum, clover, potatoes, pumpkins, fruit, and in good seasons abundant pasture. I got much evidence as to the supposed effect of flooding this land when the sluices of the proposed dam should be closed. Between the time of closing the sluices and getting the water off the land again we may assume that the land would be under water for a fortnight; but, on occasions when floods come in pairs, as they often do, the land might be submerged for nearly a month.

Quality of  
land.

All the evidence given me was to the effect that the pastures would be ruined by such a submersion, and that cultivation would be abandoned. Witnesses represented that after holding up a flood the deposition of silt would be enormous, and that all finer grasses would be killed; that it would take six to eight months before the coarse grasses would spring up through the deposits, and during that time the pastures would be useless.

Effect of  
flooding by  
dam.

One can only make a guess at the quantity of silt that a great flood would lay down over the land; but if the muddy and sandy water of a flood contained one-fiftieth of its bulk of silt, which is less than  $\frac{1}{4}$  of an inch of sediment deposited from a pail of water 12 inches deep, then the deposit of a flood might be about 9 inches deep over the whole surface, which would mean that where the water stood 1 foot deep there would be a deposit of  $\frac{1}{4}$  inch, and where it stood 100 feet deep the deposit would be 2 feet deep. It was also represented that a flood brings down incredible quantities of drift timber, which, when the dam was emptied, would pile up great masses at the dam and there be buried in the deposits of mud and sand.

Silting-up.

This beautiful valley is at present held by great proprietors, and there is little cultivation; but if it were held in small holdings it would be all cultivated and would be most productive.

Flats of river  
indispensable.

My witnesses showed that the large proprietors could not dispense with that part of their holdings which lies in the flats of the valley and would be submerged, for if their cattle were put off the flats by the flooding and subsequent want of grass their hill pastures would be overcrowded, because, as they say, their hill pastures produce no fat beasts; in fact they were unanimous in the opinion that landowners would not part with their flats unless their whole properties were taken also. I got a list of six proprietors holding 82,200 acres, of which 19,100 acres were in the river flats and would be submerged.

Value of land.

Witnesses valued the flats at £10 per acre, and were of opinion that, subject to being submerged from time to time, the land might let at from 1s. 6d. to 2s. 6d. per acre yearly rent, the rent value at present being 5s. to 6s. per acre, but they thought that no one could rent the land unless they had the adjacent hills to drive their stock to when the dam was filled.

It was also represented to me that the village of Denman, 250 people, with churches, schoolhouse, post office, hotels, shops, and dwelling-houses, must be shifted on to the hills, and all existing roads and bridges would be rendered useless where they pass through the proposed submerged land.

Fear of dam.

Many witnesses expressed great fear of living below such a dam, and the Mayor said that the people of Singleton would be in great dread of such a body of water being held up above the town, and would unanimously oppose the construction of the dam.

I cannot help agreeing with what the Mayor of Singleton and other witnesses expressed, that it would be unreasonable to injure 23,000 acres of the finest land in the Colony, in order to afford a partial relief from flooding to the lands of the Lower Hunter, and that the dam at Denman would be a standing menace to everyone living in the Hunter Valley below it.

One cannot deny that there is some risk of a dam of this magnitude giving way, however carefully built; and it is well-known that several great dams, both of earth and of masonry, have burst with disastrous consequences; and whatever justification there may be for erecting a great dam across some rocky river gorge, to place one across a fertile populated valley and impound up such a vast body of water would involve a responsibility which I do not think any Government would care to incur.

Site of dam.

At the site of the dam there is a steep rocky hill on the right bank, at the foot of which is the river flowing in a flat meadow 600 feet wide, the river itself being about 200 feet wide. From the meadow the site on the left bank is located on a low ridge rising in terraces to a hill 30 chains from the river. The dam would stand on the back of this ridge with ground 40 feet lower, 500 feet off, on the lower side; thus the site is excellent on the right bank, but by no means the best on the left.

The borings show sandstone, shale, and coal on the right, and yellow shale, gravel, to blue shale on the left. To get in the foundations across the river and its 600 feet of flats, the excavation would have to be about 60 feet deep to reach the blue shale; in such a trench, liable to be flooded at any time by the river, there is always the possibility of getting bad work just where the best is required for safety. The low ground below the ridge on the left side, mentioned above, is a bad feature only to be remedied by sinking the foundations much deeper, depending on the dip of the beds of shale.

One should not omit to consider the enormous mass of sand and mud which would be brought into this reservoir, not only by big floods, but by every freshet, and what could not be washed out through the sluices must remain there. In a very few years I imagine the bed of the reservoir would be silted up to the level of the sluices, and after that the silting would go on year by year, diminishing the capacity of the reservoir, unless it could be washed out through the sluices; and it seems to me that only a small part of the deposits could be got rid of in that way.

Uncertainty of dealing with water.

I do not know how a flood stopped back in this reservoir would be disposed of. No one can tell what rainfall is going to cause a flood. I heard of a case where 4 inches of rain in twenty-four hours did not raise the Goulburn nor Hunter more than a few feet, because the rain was preceded by nine months of drought; yet the 1893 flood, the greatest ever experienced, according to Mr. Price, was caused by 4 inches, the country being previously well soaked. But between such extremes there are many means, among which it would take a wise man to know which should be stopped back, and which allowed to go down the river. Then

Then it is known that floods frequently come in pairs. If the first to arrive is held back, it would have to be let out very quickly so as not to have the second on top of it. If it were held up too long the second flood would find the reservoir with the first flood still in it, and when the second had passed over the dam, the reservoir would have to be emptied, which would prolong the flooded condition of the river to an injurious length of time, seeing that while the river was thus kept bank high, all adjacent lands would be water-logged for want of drainage outlet.

A case occurred in 1870 when six floods followed each other between 5th March and 25th May. If each of these had been held up in the dam and let out again, the lower river would have run bank high for nearly three months, and all the lands would have been water-logged for that time.

But the first reached its height at Singleton from the 11th to the 12th, and the second between the 18th and 19th, so that there was no time between these to let the first flood out of the dam before the second was on top of it. On the 16th, the first flood had gone down greatly, and it is not unlikely that, seeing the weather cleared up, the keeper of the dam would have opened the sluices; but immediately he did so, the second flood was coming, and he would have to shut the sluices forthwith, for if he did not he would blend the two floods into one. In like manner, between the fourth and the fifth floods of this series, there was hardly time to empty the dam of the fourth before the fifth was at hand, and the fourth was the highest of them all.

Now, under these circumstances, this reservoir would not have served its purpose; neither would it on the more frequent occasions, when two floods follow each other at short intervals. In any case, seeing how uncertain is the arrival of floods, how uncertain what rainfall will produce one, how careful the man must be who handles such a vast body of water, and how entirely new and experimental is such a method of regulating floods, I think it would be more prudent to let some other country try the experiment first, and see how it works. One knows that this method of restraining great floods has been proposed in France and other countries, but I notice that they have never carried it out.

Reservoir  
useless in this  
case.

Mr. Walsh proposes to cut a channel at Duckenfield, through the ridge there, with the object of lowering the height of floods by this overflow.

The bottom of this channel is to be sloped from high-water mark at Duckenfield to high-water mark at Greenaway's Creek, where it joins the river again.

The effect of this would be, that the depth of water in the cutting at the entrance would be the height of flood above high-water mark. In 1893 the flood was 20 feet above high-water mark at Duckenfield, and 13 feet above high-water mark at Greenaway's Creek. The slope of surface of water in the cut would, therefore, be 1 in 3,500.

As Mr. Walsh says that the discharging area would be 4,800 square feet, the quantity this channel could discharge would be 30,000 cubic feet a second at the top of 1893 flood. The effect of withdrawing 30,000 cubic feet from the main river, calculated at the cross-section at Green Rocks just below, would be to lower its height about 1 foot 4 inches. But as the water in the main river was lowered, that in the overflow channel would be lowered also, and the discharge would be less than 30,000 cubic feet a second; therefore, the effective lowering of height would be less than 1 foot 4 inches, and it would not be worth while to spend £49,400 for such a trifling reduction in the height of floods.

The 1857 flood would be scarcely affected in height by this overflow channel, because it would flow through it only 12 feet deep, and discharge about 14,000 cubic feet a second.

I have no plans of Mr. Walsh's proposed flood overflow channel at Bolwarra, by which to calculate what his proposal to take off 20,000 cubic feet a second from the top of a flood would lower its height.

Mr. Walsh says that when the river should rise to 33 feet on Belmore gauge, this proposed channel would be discharging 20,000 cubic feet a second.

The 1857 flood rose to 29 feet on the gauge; therefore the cutting would not draw anything like 20,000 cubic feet from that flood; but the 1870 flood rose to 34 feet, and it would therefore take more. In any case, judging from the above calculations of the effect at Duckenfield, the effective lowering of flood height would not be much—certainly not worth the estimated cost of £118,000—and it would be much more useful to remove the great obstruction to the flow of a high flood, which Mr. Walsh mentions as existing at Green Rocks.



Present proposals.

I come now to my own proposals to mitigate the floods in the Lower Hunter; and I must first say that, although the floods may be lowered between Maitland and Morpeth, I do not think that they can be lowered between Morpeth and Hexham by any works within a reasonable cost. By spreading over the land, the floods are now as low as they can be; but if they are prevented by levees or embankments from so spreading, their height will not be lowered. The section herewith shows that uniform gradients from Newcastle to Morpeth may be given to the bottom by dredging, and the narrow parts may be enlarged to give a uniform sectional waterway; but still the river channel will not hold a big flood within its natural banks; so that if the water is to be kept off the land, the flood must be shut in between embankments, and will be as high as ever.

I will therefore first consider the case between Maitland and Morpeth.

Straightening river.

On the section herewith I show a diversion from Pitnacree to Morpeth, shortening the river from its former length of  $14\frac{1}{2}$  miles, or its present length of  $8\frac{3}{4}$ , to  $3\frac{1}{4}$  miles; and I must observe that it is not now advisable to keep to Mr. Gordon's Diversion No. II, because the river is greatly altered since his report.

Mr. Moriarty, Mr. Gordon, and Mr. Price asserted that this should on no account be done unless the whole of the river to Hexham was previously improved, so as to take away the extra water that the cutting would bring down, and so raise the flood level at Morpeth and the lower river.

No injurious effects.

I wish to show that the diversion from Maitland to Morpeth may be cut, and that it will have no injurious effect on the river at Morpeth, nor anywhere down the river; and as it appears to me to be urgently necessary, for the safety of Maitland and adjacent land, that this diversion should be cut, but it is not urgently necessary to improve the river all the way to Hexham, I must try and make it clear on this point; because unless people are convinced that no injurious effects will follow the cutting of the diversion, it will never be done.

Mr. Moriarty has gauged the discharge of the river channel at various cross sections from Maitland to Morpeth, and has taken the fall by which the discharge at each section is calculated as the difference of height divided by the length measured round about the windings of the river, which method, as he shows, reduces the flood gradient from 1 in 3,246 at Maitland to 1 in 9,359 at and below Pitnacree, and from this he deduces the quantity received at Morpeth, while the flood was at its height at Maitland (page 31), as 37,730 cubic feet a second.

Calculations wrong.

I cannot believe this statement, for as long as the flood is contained within the banks of the river Mr. Moriarty's calculations are correct; but as soon as the flood overflows the banks, the calculations cease to be true, and by the time the flood has filled the whole width of the valley, 2 miles wide, and to an average depth of  $6\frac{1}{2}$  feet in 1857, and  $10\frac{1}{2}$  feet in 1893, the river channel has ceased to flow.

This shows that instead of Morpeth receiving, as Mr. Moriarty and Mr. Gordon call it, a "retarded flood," and therefore being protected from the great body of the flood which is raging at Maitland, it really receives the great body of the flood, just as much as Maitland is doing.

Examining the facts.

The fallacy of reckoning the discharge and deducing consequences from the flow of the crooked river channel may be seen by examining the facts of the case. The river, in a length of  $14\frac{1}{2}$  miles, turns and twists in every direction, some of the reaches being across, and some against, the general slope towards Morpeth. As soon as the flood, rising above the banks, begins to flow over the land down the general slope towards Morpeth, those reaches of the river which lie against this slope have the surface level of the water highest at their lower end of the reach, and lowest at their higher end; then the water in this reach not only ceases to flow, but flows the wrong way and spills over the banks. This phenomenon was confirmed by the evidence of a settler who observed in the 1893 flood that the reach of the river between  $8\frac{1}{4}$  and 9 miles above Pitnacree Bridge was flowing the wrong way—that is, from the bridge towards the  $8\frac{1}{4}$  mile point, where there was a great overflow.

Those reaches, on the contrary, which lie in the same direction as the general slope, partake of the general velocity of the wide inundation, flowing over the land, which is swifter than the current in the river channel before it overflowed, as may be proved by calculating the velocity in the channel with its slope of 1 in 9,300, and that of the overflow over the land with its slope of 1 in 2,100.

This

This shows that the crooked channel from Maitland to Morpeth is not the vehicle of a high flood, and therefore calculations of the flood discharge made from the sections of the river channel are wrong. On the contrary, the entire width of the valley with its slope of 1 in 2,100 is then the waterway of the flood; and if, as Mr. Moriarty says, the discharge of the 1857 flood at Belmore Bridge was 132,000 cubic feet a second, then it seems to me that the flood stream everywhere between Maitland and Morpeth was discharging the same quantity.

The quantity of 37,700 cubic feet a second, which Mr. Moriarty asserts was all that flowed past Morpeth, while 132,000 cubic feet were flowing at Oakhampton, is quite out of the question. I have had a section taken right across the valley, from the high land at the Morpeth tram to the high land at Largs, and on it is drawn the level of the floods of 1893 and 1857. This shows a body of water 8,900 feet wide, with average depth for 1893 of  $10\frac{1}{2}$  feet, and for 1857, of  $6\frac{1}{2}$  feet; the gradient of the surface in the latter was 1 in 1,600, the area of the waterway was 55,000 square feet, the calculated velocity is  $5\frac{1}{2}$  feet a second. But, as this gives a quantity out of all reason, we must assume that there were obstructions, and that the velocity was less. If we take it at  $2\frac{1}{2}$  feet a second, this gives more than the 132,000 said to have been flowing at Maitland; and, as this section is only 50 chains from Morpeth, we cannot avoid the conviction that at the same moment this quantity was also passing Morpeth.

Valley flooded  
from side to  
side.

Mr. Moriarty calculated that if a straight channel were made from Maitland to Morpeth, the floods would be lowered at the former and raised at the latter place, because, as he asserts, the flood is delayed in coming down the crooked channel. He does not seem to have taken the water flowing all over the land as part of the flood to be reckoned with; but it is quite evident that in 1857 flood, four times as much water flowed over the valley as was possible to flow in the river channel, and in the 1893 flood seven times as much. As I understand the phenomenon, about the same quantity of water must flow past each place; from which I infer that if the excessively winding channel of the river were straightened, the flood would rise no higher at Morpeth than it does at present.

The Royal Commissioners evidently saw that straightening the river from Maitland to Morpeth would not have the effect of raising the flood at Morpeth (page 20, Report), and that it would lower the flood height at Maitland. But it is not easy to follow their reasoning on what they call the local effect to be produced by the disgoring of the water at the outlet—that is, at the great bend at Morpeth. They return to Mr. Moriarty's views about the carrying capacity of the river channel at Morpeth, which, as they assert, is only capable of carrying 40,000 cubic feet. From this they draw the conclusion that the straightened channel must not be made capable of carrying within its banks more than 40,000 cubic feet (page 21), because if the capacity were made to carry, say, 60,000 cubic feet, while the channel at Morpeth can only carry 40,000, "20,000 cubic feet would be suddenly shot over the banks at the bend at Morpeth, producing, probably, the most disastrous results." This leads one to suppose they thought that the water would issue from the straight cut like a cataract. But nothing like that could occur; because, the flood coming down the cut, and the flood getting away below its mouth, would swell and rise equally together. This anticipation of theirs seems the more unintelligible, seeing that they acknowledge that at the top of the flood, the whole river is at its equilibrium of flow, or "in train," as it is called; so that as much as is brought down by the cut, precisely the same quantity would be flowing away in every part of the river. In this condition it is no longer a question of what quantity the channel at Morpeth is capable of carrying, for the whole country below Morpeth is overflowed—the river is "in train," and all that comes from one part is flowing away at the other.

I have said already that the height of the floods cannot be lowered in the river below Morpeth, but that is no reason why it should not be lowered where it is urgently necessary—that is, between Maitland and Morpeth. There the people, in a sort of heedless self-defence, have embanked the town and the land, and shut the floods out of Wallis Creek; and, as the case now stands, either the banks must break at every flood, or the river must be straightened to save them.

If the people below Morpeth should take a notion to embank their lands also, then the height of floods will rise, and either dredging improvements will have to be undertaken to keep it down, or the consequences must be put up with, until, in the course

course of years, the increased velocity of the confined floods will gradually scour out the channel to suit itself. In a great flood the quantity of water to be confined is so great that of course the banks will burst right and left, which infers that the embanking below Morpeth must be carried out very gradually, and the river improved at the same time, or else it must be left as it is.

Flood not delayed in quantity.

I can understand a flood being delayed in time, but I do not agree that in a case like this it can be delayed in quantity; and as the settlers of Morpeth are greatly afraid that if improvements are made in the present winding channel it will "bring the flood down upon them," I will try by a simple example to explain that no change in the usual flood-level can take place.

Example.

The straight distance from Maitland to Morpeth is  $3\frac{1}{4}$  miles, and by the winding of the river  $14\frac{1}{4}$  miles, and the fall being the same for both, the crooked river has a far flatter gradient than a straight cut would have. The river winds about in a flat valley, 2 miles wide, which slopes at about the same rate of fall as the straight cut would have.

Now, take a tin trough,  $3\frac{1}{4}$  feet long, 6 inches wide, with sides 6 inches high; set it under the tap of a tank with a fall of  $\frac{1}{2}$  an inch, turn on the water at the rate of 1 cubic foot of water a second, and in about one second the trough will be discharging 1 cubic foot a second at its lower end, and will not overflow.

Take another similar trough  $14\frac{1}{4}$  feet long, but bent into twists and kinks, so that its two ends are  $3\frac{1}{4}$  feet apart; lay it on a flat table,  $3\frac{1}{4}$  feet long by 2 feet wide, scribe on the table the outline of the trough, and cut it out; then sink the trough in this groove so that its top sides are flush with the table. Then set the table with a fall of  $\frac{1}{2}$  an inch under the tap of the tank at its top end, and turn on the water at the rate of 1 cubic foot a second. The water will flow slowly round the bends and kinks, and, being thus delayed, will soon overflow its sides and inundate the flat table; but, the table being much steeper gradient than the trough, the water will rush down the slope, falling into the trough wherever it crosses its path; and the result will be that in about seven seconds the water will have reached the lower end, with  $3\frac{1}{2}$  cubic feet of water in the trough, and  $3\frac{1}{2}$  cubic feet overflowed on the table; and the water will continue to flow from the lower end at the rate of 1 cubic foot a second, just the same as the straight one is doing. This shows that the flood is delayed in time but not in quantity.

How quantity may be delayed.

There is only one way by which the flow at the lower end can be made less than 1 cubic foot a second, which is by shutting off the tap before the water has reached the lower end.

The above is just like the case which occurs at Morpeth in a high flood; and the only way by which the flow at Morpeth can be less than it is at Maitland is that during the time the maximum flood is taking to pass from Maitland to Morpeth the supply at Maitland should suddenly fail. But if this is true at this place it is true everywhere down the river to the sea, provided that during the time the height of the flood is travelling to the sea the full supply is kept up at Maitland.

According to Mr. Moriarty, the 1857 flood kept at its maximum height at Singleton for seventeen hours, at Maitland for twenty-seven hours, and at Morpeth for twenty-four hours; so that if the flood-level had kept up at Singleton for any length of time, the flood at Morpeth would have risen no higher.

Fears of settlers groundless.

But according to the same authority the top of the flood took six hours to reach Morpeth from Maitland, so that by the time it reached Morpeth, and for twenty-one hours afterwards, the full supply was kept up at Maitland; therefore the crooked channel of the river did not keep back any of the flood, and the fears of settlers down the river that works to straighten the channel will be injurious to them are groundless, for they have experienced the full maximum flood already, and they can get no less from a crooked instead of a straight channel.

Confirmed by calculation.

Another proof of this is given by calculation of the flood discharge at the section above Cummins Dam, which gives for the 1893 flood about 250,000 cubic feet, while at Eales' Flat, making a deduction for the flow of the Paterson, the quantity is about 246,000 cubic feet a second. Both these sections contain the whole flow of the river; but the calculations must be taken as only approximate, as the gradient of the flood is uncertain at both sections.

Great rivers do retard floods.

As I do not wish this subject of "retarded floods" to be misunderstood, I will explain that under suitable conditions, a flood may be retarded both in time and quantity, and in large rivers it usually is so. Thus

Thus the 1857 flood took twelve hours to come from Singleton to Maitland, and Mr. Moriarty says that its maximum discharge was maintained at Singleton for seventeen hours; therefore the quantity discharging at Singleton was not abated at Maitland. But suppose the river were so long that the top of the flood took three days to come down, then the quantity that passed Maitland in a given time would have been less than at Singleton (assuming that no additional water came into the river between the two places), because the supply at Singleton, lasting only seventeen hours at its maximum, was abated before the flood, taking three days to reach Maitland; and the longer the river is the more will a great flood in its upper part be abated in its lower.

We may also try to show how the case of the 1893 flood is reduced in quantity by time. Mr. Price says in his report that 4 inches of rain fell in the Upper Hunter district, producing 48,600 millions of cubic feet, or at the rate of 562,511 cubic feet a second; and that the central district, with 9 inches of rain, produced 36,130 millions of cubic feet, or at the rate of 418,176 cubic feet a second, and suppose that the rain after the twenty-four hours fall above stated cleared off. The 1893 flood tried by this rule.

Mr. Price thinks that about 70 per cent. of the rainfall may have reached the rivers, the remainder following afterwards by draining through the rocks and soil. Then 70 per cent. of 562,511 cubic feet is 393,750 cubic feet a second, and to find approximately the rate at which this passed Maitland, we must assume the time it took to travel that distance. Say the rain took one day to fall, one day to reach the mouth of the Hunter and Goulburn, one day to reach Singleton, and half a day to reach Maitland—that is, the rain of one day must be distributed over  $3\frac{1}{2}$  days, which reduces the 393,750 cubic feet to 112,530 cubic feet a second.

Then the central district yielded 70 per cent. of 418,176 cubic feet, equal to 292,723 cubic feet a second, and say it took one day to fall, one day to reach Singleton, and half a day to reach Maitland, or two and a half days, which reduces the 292,723 cubic feet to 117,090 cubic feet a second. But as they came down together, by reason of the obstruction to the flow of the first flood waters between Maitland and Morpeth, as described by Mr. Moriarty (see page 27 of his Report), they passed Maitland at the rate of 229,620 cubic feet a second.

This is merely a guess at the actual facts; but it is singular that the above quantity of 230,000 cubic feet a second is not far off the quantity ascertained by calculation as passing the section above Cummins Dam at the height of the 1893 flood.

In case it is thought that I have gone into this subject of "retarded floods" at a tedious length, I must remark that Mr. Moriarty (page 31), Mr. Gordon (page 6), and Mr. Price (page 2), all agree in asserting that no straightening of the river between Maitland and Morpeth can be done without raising the flood to a disastrous height at Morpeth, unless the river is improved at a great cost all the way down to Hexham; whereas I have shown quite clearly that straightening the river would have no effect on the height of the flood at Morpeth.

I attach hereto a plan, showing the embankments that have been raised on both banks of the river. These banks have been raised without regard to the effect that they may have on the height of floods, and, as a fact, they have caused the floods to rise higher than they did before; also the great reservoir, or back-water, of Wallis Creek, is now closed by gates to all but very high floods, and the flood overflow at Cummins is closed by a stop bank. All these banks are now up to the level of the 1893 flood, but the top of Wallis Creek floodgates is 7 feet below that level. River embanked.

There can be no question now of undoing this work, and the thing to be done is to make the banks reasonably safe—especially the banks round the town of West Maitland should have particular care; but the banks are not such as the town should have for its own safety. All the land on which the banks stand should be public property. The banks should have a core of clay sunk down into the original ground; they should be at least 15 feet wide on top, and it would be safer if they were made a public roadway, so that their condition could always be seen. At present they are of various widths, from 6 to 9 feet, and, as they are fenced off where they pass through private property, they cannot be properly inspected. In places there are fences on top of them, with post-holes sunk deep along the top; in other places they are tramped down 2 or 3 feet low, where cattle pass over. Along the Oakhampton Road the banks are too light, and very unsafe. I think the road itself should be raised to serve as the bank. Banks not safe.

The

The banks on the Bolwarra side are not made with the hope of keeping out very high floods, and, although they are up to 1893 flood level, they may be breached whenever they are topped by the rising water; and the same is the case with the West Maitland banks.

River must be straightened for safety's sake.

Nothing now can make these banks, and the town of West Maitland, reasonably safe unless a straighter course is made for the river as far as Morpeth. I have shown my reasons for believing that if the river were so straightened the height of floods would not be raised at Morpeth, or anywhere else down the river.

Bad effect of banks.

The embanking of Maitland and the Bolwarra lands having raised the height and increased the rush of floods over the land, has caused three of the loop-like bends of the river to break through, and before long two more will break through, and then the river will have a much shorter course to Morpeth.

Proper course for diversion.

Still this is not the best course, and would not be so effective as a straighter and shorter one; besides, the river at present flows on high ground. But if it were diverted through Howe's Lagoon it would be on ground over 10 feet lower, and it is always best to have the river on the lowest ground. The proposed diversion is shown on plan herewith; but when it comes to be undertaken it should be decided which course should be taken of two lines shown on plan, the lower of which would save the bridge at Pitnacree, but the upper would require a new bridge. Borings should be put down so as to get the required depth of cutting clear of the rock, which will be found some depth down, near Howe's Lagoon.

Dimensions of it.

For this diversion I have taken the flood as discharging 150,000 cubic feet a second, which is about the quantity of the 1857 flood. The diversion being 400 feet wide at bottom, and the flood 37 feet deep in it, with an inclination of 1 in 3,300, the effect would be that the flood would be lowered over 7 feet at Belmore Bridge below what it was in 1857, 5 feet opposite Horse-shoe Bend, 2 feet at Pitnacree Bridge, and remain the same height at Morpeth as it was in 1857.

Cannot contain 1893 flood.

The 1893 flood, discharging 250,000 cubic feet a second, would not fit this channel unless the banks were raised very high so as to confine it within them; in which case such a flood as that of 1893 would be the same height as it was at Belmore Bridge about 4 feet higher than it was at Pitnacree, and the same height as it was at Morpeth, always supposing nothing is done to the river below Morpeth; but the whole flood would be contained between the banks raised at each side from the excavations. Seeing that the channel will not reduce the height of the 1893 flood, I must explain that on the occasion of the flood in 1893 the stop bank at Cummins carried away, letting a prodigious quantity of water flow down on the south side of Maitland; also, the Bolwarra and town banks burst, letting the water spread all over the country.

If none of these banks had given way, the height of the flood would have been over 6 feet higher than it was at Belmore Bridge, remaining as it was at Morpeth. The same may be said of the 1857 flood, which, if it came now, when all these banks are up and Wallis Creek closed, would rise many feet higher than it did when it flowed all over the country in 1857.

Diversion will lower flood.

This diversion, therefore, will considerably lower a flood like that of 1857 in the neighbourhood of Maitland and Pitnacree, and contain it all between its banks. If the banks are raised to a considerable height it will also contain the 1893 flood; but it will not lower it at Belmore Bridge under what its level was on that occasion. It will raise its level at Pitnacree above what it was, and leave it as it was at Morpeth.

If, however, when this diversion is made, a flood like that of 1893 should occur, and the banks all burst as they did then, the height of the flood would be some feet lower than it was in 1893.

The new channel could not be cut without making high and very wide banks on each side out of the excavations, and filling up all low places within reach of the dredge pumps.

Old river channels must be left open.

This would confine a flood like that of 1857, except that the old river channel should be left open, so that it may silt up more quickly. Of course, the flood would get in by that opening and flood the old channel within a few feet as high as it did in 1857; but in a flood like that of 1893 the old channel would be flooded even higher than it was in 1893, supposing the banks did not break above the opening; and, in fact, if it is proposed to keep such a flood as that of 1893 within the banks, then all the banks now existing round about the windings of the old channel must be raised considerably in height.

The

The fact is, that such a flood as that of 1893 cannot be controlled; and if Maitland can be secured against it, it must be left to burst the banks and go all over the country, for if the diversion is cut it will not rise so high over the Bolwarra and Pitnacree districts as it did then. 1893 flood unmanageable.

If such a diversion as that mentioned above were made, one must expect to incur considerable expense in keeping the river in its new channel, for in the soft, silty soil it would immediately commence to deviate, and if left alone would in time develop as many twists and turns as it has now. This tendency must be stopped, as soon as the current begins to eat into either bank, by protecting with stone, of which there is abundance close at hand. Diversion would deviate if allowed.

The diversion from Maitland to Morpeth will only benefit the Maitland, Bolwarra, and Pitnacree districts, and the question remains as to what should be done for the country between Morpeth and Hexham. The lower river.

I have stated above the objections I find to Mr. Gordon's proposal to divert part of the river from Eales' Flat, through Miller's Forest, to Hexham; and I think there are equally strong objections against diverting the whole river through that part, such as the opposition of settlers and landowners in the Miller's Forest, the ruining of the navigable channel of the main river between Eales' Flat and Hexham, which, diverting the whole river through Miller's Forest, would cause it to silt up.

This would certainly give rise to claims for damage by the people of Raymond Terrace and holders of property along the river, who would be deprived of those advantages of navigation which they enjoy at present. As long as any contemplated works are kept to the existing river channel, whoever undertakes them will be within their rights; but whenever one leaves the main river, then one becomes liable for all the unforeseen consequences, whatever they may be. Diverting through Miller's Forest.

To divert the whole river through Miller's Forest is an immense work. To carry a flood of 175,000 cubic feet a second, the cutting would require to be 500 feet wide at bottom and 27 feet deep; the flood retained by the side banks would be 35 feet deep in the cutting. This would cost about £400,000, and take many years to finish. The outlay would be of no benefit until its completion, and, after completion, repairs and maintenance to keep the river from attacking its soft banks would require continual expenditure.

Rather than incur the great cost, as well as all the risks and liabilities of making such a diversion, I would prefer to keep to the main river, even if to deepen and widen it so as to reduce the flood level should cost more money than the diversion mentioned above. In other countries, in similar circumstances, the practice is to embank the flooded land, and improve the river by dredging. Glasgow used to be inundated in its lower parts by floods in the Clyde; but they have deepened and widened the river, and are no more troubled with floods; and, after careful consideration, I can see nothing better to be done in this case. Prefer to keep to the main river.

I think that the first step to take in order to improve the flood-carrying capacity of the river should be to straighten the two sharp bends, as shown on plan herewith, and next to enlarge and deepen the waterway at Green Rocks. At this place Mr. Walsh, C.E., of the Harbours and Rivers Department, observes that in the 1893 flood there was a fall in the surface of the water of 2 feet in about a mile, and the current was running at the speed of 11 miles an hour, or 16 feet a second. This plainly indicates a great obstruction, which should be removed, even if nothing else were to be done to the river. But the cause of this obstruction must be verified, for I observe that on the right bank embankments have been built close to the river; and as there is high ground opposite on the left bank, the flood is here gorged to a very narrow passage, which may be the cause of the extraordinary obstruction observed by Mr. Walsh during the 1893 flood. If this is found to be the cause, then these embankments must be removed; and they should not be erected at this place nearer the river than a quarter of a mile. Cut off two bends.

If, however, the serious obstruction observed at this place is caused by the rocks of Green Rocks, then the first thing to be done to assist in lowering the height of floods is to remove this bar of rocks to an ample width and depth, but chiefly depth, as shallow width is of no use.

Mr. Walsh in his report advocated enlarging the waterway, by cutting back the rock at low-water level; but, considering how very small is the effect of any enlargement which has only a shallow depth, I would recommend that the enlargement Green Rocks.

enlargement be cut down to the depth of the deepest part of the river at this place. There is no difficulty in doing this by rock-drills worked on a punt, the rock blasted by dynamite to be raised by dredging. In the Brisbane River a great reef of rocks was deepened to 26 feet in this way in a very short time.

I show on a section of the whole river herewith, and on the cross sections pertaining to it, how the channel might be enlarged and dredged to a uniform width and gradient which would contain within the embankment such a flood as that of 1857. This shows no reduction whatever in the height of such a flood, owing to the fact mentioned before, that the flood, when spread all over the land, is as low as it possibly can be.

It shows, however, that the flood-level can be kept down to the same height as is attained by Mr. Gordon's plan of diverting part of the river through Miller's Forest, which is seen by inspecting the figures indicating flood-heights on his section and on the one herewith.

Work not so  
easy as it  
appears.

This work, shown on the section and cross-sections, looks very well on paper, but the following considerations cannot be overlooked.

There are so many uncertainties attending the dredging of a river that no one can tell exactly what the result would be. Thus, if the channel were dredged and enlarged to accommodate a big flood it would be far too large for a small one, and the many small ones that intervene between each big one would silt up the enlarged channel to such an extent that when a big flood occurred it would fail to scour out all that had been deposited in the interval. This is what occurs in ill-designed sewers, and causes so much trouble. Of course, if the river channel could be dug out to such a shape that small floods would be accommodated equally with great ones, the channel would keep clear of deposit; but in an ordinary river this is impossible.

In enlarging a river artificially, in places where the river is curved, the new enlarged section will not suit the requirements of the current which, in such places, requires extra depth and not extra width; consequently, if extra width is given it will be silted up. At present the river is of unequal width, and where it is wide it is shallow, and where narrow, deep. An artificial channel of uniform width and depth can only keep so provided the channel is straight. If it is curved the river will soon make the curved places deep and narrow; and as the river is not only frequently curved, but curved in reverse directions, it is obvious that if it is given a uniform width and depth it will not keep so for long. Any improvements, therefore, in the river channel are almost unmanageable unless the river is trained within stone training walls.

In the Mississippi, it is remarked that only such dredging as is done in the natural axis of the current is permanent, and if this is not studied for every bend and reach the dredging will silt up again. In undertaking such work in this river, it would have to be carried out with much experienced observation, so as to choose the best position and direction in which to deepen or widen, because in a river without training-walls, dredging, heedlessly done, will certainly be work thrown away. I have seen much money thrown away by not observing such indispensable precautions in dredging a river.

Land might  
be embanked;

but this will  
raise floods.

Injurious  
effects.

As is done in other countries, the land might be embanked and the river left alone. But in this case it is evident that at present the height of floods is as low as it can be, because they spread all over the land, and if the water is to be shut in between embankments the height of floods must be greater than it is now. From trials which I made on sections of the river as it now exists, with assumed flood gradients, the 1857 flood, for instance, would be raised 9 or 10 feet higher if shut in between embankments 400 feet away from the river bank at each side, and the 1893 flood far higher than it attained in 1893.

Such a raising of the flood height would affect the height of floods all up the river, possibly as far as Maitland. From this it would appear that embankments, without widening and deepening the river, would rid the lands of inundation, but would raise the flood level to a dangerous height, if it could be contained within the banks.

Nevertheless, there is no doubt that embanking the river, however low the embankments might be, would promote scour. By so much of the water not being allowed to spread over the land the height of floods would be raised. This would increase the velocity, which would increase the scour and so deepen the channel.

From

From the above considerations, I think the safest way to attain the object sought, of preventing floods from inundating the land without producing violent and unlooked-for changes, would be to gradually carry on the work of embanking and dredging together. First, beginning at the lower end to raise the banks, say 5 ft. high, between Hexham and Morpeth, and to dredge and enlarge the channel so as to keep down the extra height of floods as much as possible; then, in succeeding years, to raise the banks a few feet more, dredging and enlarging the channel at the same time. In the end, the banks being raised as high as experience shows they require to be, and the river dredged and enlarged to correspond, there would be a fair chance of permanency in the work, the floods would be very little higher than they are now, and the land entirely protected from all but unusually high floods, which would breach the banks, and then they must be made up again. Great floods occur only at long intervals, and in every country where land is protected in this way they never pretend to expect complete immunity from accidents by unusually high floods.

Fortunately for this part of the Lower Hunter there is high ground all along the river at moderate distances from it, on both sides; so that there is no necessity for people to live within the limits of the flooded land, and those who cannot afford to live on the rising ground should leave the district for the sake of their own safety.

It would take many years to finish the work of gradually raising banks and dredging the river, the time depending on the number of dredges employed; but, commencing from below and working up, the results would be useful from the commencement; and as the lower river, from Hexham downward, is not in such urgent need of protection from floods as the Maitland district, the people should be content during the time necessary for the completion of the work. Some countries have taken centuries to carry out works of this kind, and in the Mississippi they have been working at the levees and dredging the river for the last sixty years.

The Williams and Paterson have flats which it is equally important to protect from floods, and the work of making banks is required here also. But there is no necessity to dredge any part of the Williams, and at only two or three shoal places is it required on the Paterson. The banks for these two rivers could, therefore, be made from ditches in the usual way.

It is important that the embankments made from the dredgings be set back from the river banks as far as possible, so as to give the floods more room, and prevent the embankments being undermined by changes in the river. There is no waste of land by doing this, as the land outside is even better pasture than the land enclosed.

The modern high-power suction dredges can do this work, and only such should be used; two dredges, each capable of discharging 1,500 tons an hour, and depositing at a distance of 1,000 feet, and 18 feet above water level, should be employed. In America, suction dredges are used to make levees, and they are said to do the work at a cost of 3d. per cubic yard.

The stuff dredged to improve the river channel must be placed on either side to form embankments, and in most places this material would be greatly in excess of what is required to form the embankments; consequently, the dredgings would form great mounds on either side of the river. The width of these mounds, depending on the amount of dredging at any particular place, might be over 300 feet; but as the material would most likely be a muddy sand, the mounds themselves would be good land, growing abundant grass; and even where the dredgings were pure sand, there would be no difficulty for the dredge to pump over the mounds a thick covering of silt and earth, procured from the adjoining banks of the river. Such mounds should be immediately sown with grass, to protect the slopes from waves from high winds when the river was in flood.

I cannot tell whether the land occupied by the dredgings to form these banks would have to be purchased. One would naturally infer that landowners would not charge for the land, which would not be lost to them; and they would have the further benefit, that all low, swampy places within range of the pumps could be filled up with the dredgings, and made high and dry.

The work contemplated above is to improve and embank the river from Hexham upward to Morpeth, it being assumed that the river, as it is below Hexham, will carry off the flood water, without much change of height, to Newcastle and the sea.

Carry out work gradually.

Plenty of high ground near at hand.

Time to finish.

Williams and Paterson.

Banks to be set back.

High-power dredges.

Embankments made from dredgings.



But if the longitudinal section of the river herewith is examined, it is seen that the existing river channel from Morpeth to Hexham has a good depth, and somewhat uniform inclination, till it reaches Hexham. At this place the river separates into the north and south channels, which, after a course of some miles, unite again in the harbour of Newcastle.

Shoals of north channel.

Immediately below the point of separation, the north channel becomes very shallow, and encumbered with sand-banks; but when they meet again there is a depth of over 36 feet below low-water.

This is probably the place where the tide is throttled, as mentioned above, and if a wide cut were dredged through the shallow part of the north channel, the tide would flow more freely up the river as far as Morpeth. The result of this would be increase of scour in the whole river, resulting in giving a more uniform depth and increased get-away for floods.

Deep cut through these shoals.

It would cost much money to dredge through these shoals a cut, say, 500 feet wide, to a depth of 20 feet at low water; but such a cut, if properly located to fit the curves of the river, would be permanent, and would greatly benefit the river above it, both as regards tidal flow and flood discharge. I believe that the final result would be that the south channel would silt up, the dredged cut through the shoals of the north channel would correspondingly enlarge and deepen, and after a few years the whole river would flow through the north channel with a permanent depth of over 20 feet where now the greatest depth is 8 or 9 feet.

There is no possible advantage in having two channels, the north and south, to let either the floods out or the tide in, as one channel with ample depth is far more effective than two shallow ones, for both these purposes.

The above projects to deepen and embank the river between Morpeth and Hexham would cost large sums of money, and many years of time. It is very improbable that owners of land along the river could bear any but a small part of the cost, and consequently, unless there was a very urgent need of the improvements which the work contemplates, it is not likely to be done.

Necessity to improve lower river.

It does not seem to me that, between Morpeth and Hexham, there is any urgent need to improve matters as they now are; and if settlers and owners protest that there is, it is not unlikely that their views on the subject would be modified, if they were asked to contribute towards the cost of remedying the present state of things. No one can deny that they suffer heavy losses and damages when great floods occur, but between times they reap very profitable crops, and the floods are acknowledged to leave behind them some benefits in the way of renewed fertility of the land.

Partial work recommended.

Taking these different views of the case into consideration, my advice would be to straighten the river between West Maitland and Morpeth, cut through the two sharp bends above the Williams, remove the obstructions at Green Rocks, and make a cut 500 feet wide through the shoals of the North Channel. This would greatly relieve the floods, and might be all that is required for many years to come.

Board of River Conservators.

Since 1869, when Mr. Moriarty wrote about the want of a system of proper drainage for the cultivated land, this has been much improved. Still there are many places in want of good drainage, which, in some cases, is prevented by not having authority to drain through other people's land. This could be put right if there was a Drainage Board, or Board of River Conservators, under the authority of which all requirements, such as drainage, the positions of embankments, the protection of the banks with stone, the checking of encroachments of the river, regulations of the planting of willows along the banks, prohibition of throwing trees into the river, and generally, all matters connected with the river and the district would be controlled.

At present they are lining the left bank of the river with stone below Maitland, to prevent the bank wearing away; but the bank is wearing away, because the river is now so shut in with embankments; and if the enlarging of the river-bed, shown on my cross-sections, should be carried out, all this stone would have to be removed.

A Board of River Conservators would see that no work was done on the river or its banks unless in accordance with a well-considered plan.

Total dredging.

The estimates given below show the immense total of 59,000,000 of cubic yards to be dredged to make the river capable of carrying a high flood within embankments; the flood quantities being 150,000 cubic feet a second above the Paterson,

Paterson, 171,000 cubic feet above the Williams, and 193,000 cubic feet below the Williams. The estimate is divided into—1st, from Maitland to the mouth of the Paterson; 2nd, from the Paterson to the Williams, including two cuttings to straighten bends; 3rd from the Williams to Ash Island; and 4th, making a cut 500 feet wide through the shallows of the North Channel, which I believe would have a most beneficial result in lowering the floods of the river, as well as enabling the increased flow of the tides to keep the whole river channel in a better condition than it is now. This cut, also, by doing away with the throttling of the tides, which I assume to be caused by this shoal, would have a beneficial effect on the bar at Newcastle.

To straighten the river between Maitland and Morpeth, and enlarge the river bed up to Belmore Bridge, would, by this estimate, cost about £200,000, which is a very large sum, but it would relieve Maitland and the Bolwarra districts of all anxiety from floods.

Besides this, I recommended, on page 20, that two bends above the Williams be cut through, the obstructions at Green Rocks removed, and a deep cut be made through the shoals of the North Channel. These would cost £253,065. <sup>Cut through bends.</sup>

The total estimate for improving and embanking the whole river is £1,076,600, <sup>Total cost.</sup> which is about £130,000 more than I estimate that Mr. Price's proposed dam would cost, and it is a much safer and more trustworthy way of alleviating the floods of the Hunter.

I have the honor to be,

Sir,

Your obedient Servant,

C. NAPIER BELL,

M. Inst. C.E.

East Maitland, 20th June, 1899.

## FLOOD PREVENTION IN THE HUNTER RIVER.

### APPENDIX.

ESTIMATE of cost to straighten and enlarge the river to carry 150,000 cubic feet at Maitland, 171,000 cubic feet below the Paterson River, and 198,000 cubic feet below the Williams.

				£	£
1. Maitland to Paterson:—					
Cuttings to straighten bends ... ..	c. yd.	3,836,000	4d.	68,766	
Dredging to enlarge river bed ... ..	"	6,982,000	4d.	116,366	
Rock to protect slopes (one side only) ... ..	"	64,000	3s.	9,600	
Land (say) ... ..	acres.	195	£30	5,850	
2. Between Paterson and Williams:—					195,582
Cuttings to straighten bends ... ..	c. yd.	4,100,000	4d.	68,300	
Dredging to enlarge river bed ... ..	"	14,012,000	3d.	175,150	
Rock to protect slopes (say) ... ..	"	30,000	3s.	4,500	
Removing rocks at Green Rocks (say) ... ..	"	.....	"	12,000	
Land taken for cuttings (say) ... ..	acres	82	£20	1,640	
Do widening river ... ..	"	224	£20	4,480	
3. Between Williams and Ash Island:—					266,070
Dredging to enlarge river bed ... ..	c. yd.	17,236,000	3d.	215,450	
4. Dredging a cut through the shoals of N. Channel	"	13,330,000	3d.	166,625	215,450
Plant:—					166,625
Two high power suction dredges (say) ... ..				100,000	
Tugs, punts, boats, moorings, &c. (say) ... ..				35,000	
					135,000
Contingencies and management, 10 per cent. ... ..					978,727
					97,873
Total ... ..					£1,076,600

HEIGHT of Floods reduced to datum of 74·75 feet below B.M. on Base Course of Brick House, near Falls, West Maitland.

	Miles.	L.W.	H.W.	1820.	1857.	1870.	1893.
At Cummins Dam before it burst (see C.C.) ... ..	35	...	...	...	...	85·84	88·99
Belmore Bridge ... ..	31½	45·54	47·78	82·54	77·70	79·91	82·59
Victoria Bridge ... ..	30	...	...	80·14	...	...	78·23
Pitnacree Bridge ... ..	29	...	...	...	67·58	...	72·88
Morpeth ... ..	27	43·78	47·62	...	63·00	63·50	68·70
Eales' Flat ... ..	24	43·78	47·62	...	61·16	...	66·05
Green Rocks (see A.A.) ... ..	22	...	...	...	59·02	58·31	64·59
Raymond Terrace ... ..	18	43·75	47·35	...	55·27	...	...
Hexham ... ..	11	43·70	47·20	...	52·63	52·72	58·09
Newcastle ... ..	...	43·17	48·75	...	46·96	...	48·83

#### APPROXIMATE Quantity Discharged by Floods.

		1857.	1870.	1893.
Above Cummins Dam ... .. cubic feet a second		150,000	200,000	250,000
At Green Rocks, deducting for Paterson and adding for overflow over ridge ... .. do.		.....	.....	246,000

#### YEARLY Crops of Lucerne per Acre.

Place.	Crops.	Tons per Acre.	Price per Ton.
Denman ... ..	4	1	£ s. d. 2 15 0
Maitland ... ..	5	1½	1 15 0
Miller's Forest ... ..	6	¾	1 15 0



*J. Ferry*, Inspector of Roads:—In 1893, the water which overflowed the land at Pitnacree flowed in a very strong current; he says he noticed that river underneath flood ran in channel very strongly.

*J. Fenwick*, Miller's Forest:—A good smart flood comes just up to the surface at his house, but in the 1893 flood it was 9 feet deep, and flowed towards Hexham very strongly; it overtopped the ridge where Mr. Gordon proposed to cut through, Diversion No. 2 as he calls it, 2 ft. 6 in. deep; the 1893 flood was 5 feet higher at his house than any previous flood; the ridge is the refuge of all people and cattle in Miller's Forest, who drive by the road to the ridge for safety during floods; the flood of 1893 kept up at its full height for twenty hours; it was never heard of before, of flood topping the ridge at the spot where Mr. Gordon proposed to cut it through; Miller's flat is fine fertile land, and reckons it worth £30 an acre; lucerne on it is cut every seven weeks, three-quarter ton per acre.

*J. W. Allworth*, District Surveyor, East Maitland:—In Maitland district they get  $1\frac{1}{2}$  ton per acre of lucerne five crops a year, average value, 35s. per ton; at Denman, 1 ton per acre, four crops a year, at £2 5s. per ton.

*Evidence given as to land which will be submerged by dam.*

Mr. Bell, Pickering Estate	...	...	8,000 acres, of which	5,000 on flats.
J. White, Martindale Estate	...	...	25,000 "	1,200 "
E. White...	...	...	28,000 "	8,000 "
R. White, Martin Estate	...	...	12,000 "	2,500 "
W. Wittecimbe	...	...	8,000 "	800 "
E. Brecht, Rosemont Estate	...	...	1,200 "	600 "
Total	...	...	82,200 "	18,100 "

*2nd June, 1899 (East Maitland).*

*H. H. Bennett*:—He has lived at Pitnacree since 1859; the 1893 flood was the biggest ever since he has seen; he thinks that the whole valley between rising ground at Morpeth and the rising ground at Dunmore was filled in that flood; generally the whole mass of the water was flowing downwards at different velocities, causing many eddies from different currents; the only way to distinguish the river channel was by the willow trees on its banks; the height of the flood was 4 inches upon the deck of Pitnacree Bridge; it was not possible to tell the way the river channel was flowing; he thinks the flood kept at its height above the deck of the bridge about three days; he thinks that the embankment all around Maitland and Bolwarra lands have done injury to the rest of the district, causing the flood to rise higher and rush over the land, doing much damage; cannot think of any remedy for this state of things except a canal to take away the water, or else to have the river straightened; he thinks the river cannot carry the water of a great flood, and that embankments now being put up have made matters worse; he thinks the permanent cure for floods on all rivers would be a canal from Bolwarra House to Woodville to Seaham, across the country to Port Stephens; 1872 flood just came into his house; there was no embankment then, and the floods spreading out over the land did less harm than now when the land was embanked; he thinks the dams have greatly improved the low and swampy parts by keeping them dry, but they have damaged other parts which are not protected by dams.

*Council Chambers, West Maitland, 4th May, 1899.*

*Robert Scobie* said that all the country was covered with forest and dense scrub a long time ago; he thinks the scrub and forest retarded the progress of the water in floods; he says that the banks were more or less stable, which caused the flood to scour channel and keep it deep—so much so that sailing-boats and other craft (shell boats) habitually came up to West Maitland; he has observed that the river in East and West Maitland and Pitnacree districts is shoaling up a little, but thinks, however, that since the settlers have embanked their land as far as Pitnacree, and kept the flood more or less in the river channel, that the scouring-out has recommenced; he has been told that the country in Pitnacree and East and West Maitland districts is silting up greatly; he has noticed the great overflows of the river at just beyond Mayo's and at McCrae's Hollow, and thinks that these overflows have been caused by the cultivation of the land and the undermining of the banks; he has always advocated the embankments, which have been carried out to a great extent as far as Largs; since the 1893 flood the land has suffered very little injury from floods; he is not in much hopes of excluding very large floods by embankments; such floods are at long intervals; the settlers are the best judges of the advantages to be derived from embankments, and they would not have put up these banks and kept the floods out if they did not feel that they had derived substantial advantages from embanking their lands; he has advocated the embankment of the land between the rising ground in large blocks, but as it was nearly impossible to do so in the crooked parts of the river, he therefore advocated the diversion of the river as shown on the plan; he does not think that the diversion proposed would have an effect that the people at Morpeth could fear, as he thinks that the whole of the water of a flood which comes down has to pass Morpeth as well as anywhere else; he remarked that the Morpeth people, who made many complaints, have never tried to assist themselves, by embankments or otherwise, as the rest of the people have done higher up; he observed that the left bank of the river is embanked from Bolwarra to Largs, but the present crooked river he sees no way how it can be embanked on the right side, as floods would certainly destroy the bank in time; and it was for that reason he had advocated straightening the river by the diversion shown on the plan, which could be banked on both sides; he thinks the district could not support Mr. Gordon's project of making No. 2\* diversion of the size to carry the full volume of the river in flood, and that the district might afford a relief channel in the same position, which in future, when the district could afford it, might be enlarged to the full capacity to carry the river in flood; he thinks if the channel were made as he proposes the river would scour it out completely, and does not think that the material carried down would materially shoal the river, provided it were embanked on each side on the lower parts; he notices that wherever the flood overflows the land there the river is shoal, and infers that if this were prevented such shoaling could not take place; he thinks if No. 3 diversion† were cut through, the river also would take charge in a short time, in which case the river from Eales' Flats to Raymond

\* No. 2 is a straight cut from Maitland to Morpeth.

† No. 3 is a diversion from Eales' Flat to near Hexham.

Raymond Terrace would silt up, but the river from Raymond Terrace to the mouth of No. 3 diversion would be kept open by the current of the Williams; he thinks if the river were embanked that it would scour itself a sufficient depth; he thinks if the river were embanked all the way along down to Newcastle floods would be kept within their banks, and, in consequence, there would be less necessity for so much dredging; he has observed that neither the tides nor strong gales have any perceptible effect on the height of the flood; he thinks that the silting up of the country at East and West Maitland which now goes on would to a great extent still go on if the diversion No. 2 were cut, because floods would flow in the old crooked channel, and deposit in it their silt; he agrees that if a relief channel is cut the old channel naturally would correspondingly silt up as a large portion of its water was withdrawn; No. 1\* diversion passes through rock, and on the lower end discharges into flat silt country, where its course would be impossible to control; he thinks further, that if such diversion were made, the original channel of the river, past both Maitlands and down to the mouth of No. 1 diversion, would silt up to such an extent that the two channels together would only be equal to one; he thinks the overflow which is now taking place into Howe's Lagoon, would, if left alone, in time become the river channel, as he thinks it was formerly; he thinks the embankments which settlers have put up have been of great use in keeping out a large number of small floods, which seriously obstructed cultivation and caused much damage; in regard to the 1857 flood, he examined the river above Cummins, and observed that by reason of its very high banks the whole body of the flood passed through the channel, and thinks, therefore, that if that were the case at this place the same thing might be made elsewhere, by means of banks carried on down the river; on account of the protection given to roads and traffic on them by reason of the banks, the Government was induced to give £1 for £1 towards the construction of such banks, which surround the town of West Maitland; he is in doubt as to whether it would be possible by means of embankments to exclude such a flood as 1893 from covering the land; he thinks that the embankment at Cummins should be maintained to prevent the overflow, and if the flood overflow at Cummins were shut up, that the original river before long would so scour out as to accommodate itself to the increased quantity; he thinks that the fertility of the land is of not so much consequence as the exclusion of numerous small floods which cause damage to the crops of the farmers; he thinks that if the land were allowed to be covered by frequent freshes the damage to the land would be greater than if they would have to manure their land in consequence of the exclusion of the flood-waters; he thinks the irregular character of the floods causes a great deal of damage which cannot be provided against except by embankments, and thinks that embankments, in addition to their benefits by keeping the river within its channel, contribute to enlarging the carrying capacity of the river, and in doing so they tend to lower the height of the floods; he thinks that the land, being a sandy loam, is peculiarly suitable for cultivation of lucerne, because of its loose texture and ready drainage; he thinks that the successive crops of lucerne taken off the land must naturally lessen its fertility, and thinks further that lucerne plant, which throws its roots to a great depth, is not readily fertilised by such top-dressing as the flood deposits puts on the land; consequently he thinks that manuring by means of flood overflow would not be effective in regard to lucerne-growing; he thinks that the reputed decrease of fertility of Bolwarra embanked land is probably due to the exclusion of flood-water, whereby the deep soil has become dry; he thinks that the floods do not last long, and the land, the further and further it gets from the dry parts in the centre (when it is embanked), is consequently less fertile than the land which has received more copious quantities of water from recent floods; he notices that the sandy loam composing these fertile lands is very porous, and readily dries away the surplus moisture; he thinks that lucerne, if submerged under floods in winter, will last many days without dying, but in hot weather of summer a few hours' submersion will kill the plant; he thinks that if the diversions proposed became the main channel of the river that the tide would come up in much greater volume as far as Oakhampton, and would bring salt water in the dry weather to the intake of the pumps, and other arrangements would have to be made to preserve the fresh water at the intake of the pumping station; he notices that in a great many floods the first flood wave comes from the lower rivers and attains very nearly to the height which the second wave coming from the upper rivers attains, and that this is very often the case; he says that the first wave comes forward and then there is a halt, and soon after the second wave appears, which he takes to be the flood-waves from the Goulburn and the upper river; if that be the case Mr. Gordon's half-flood diagram is not correctly shown, because it would reach from the lower river-level nearly to the full flood height and then be drawn out for several days, as he has shown, in which case the benefit of half-flood promised by Mr. Gordon's flood-scheme would not be attained; although he acknowledges that the high crest of the wave would not last long, he has a number of objections to a long continuance of the height of half-flood; he thinks the great objection to the reservoir at Denman is the length of time which the water would be kept up to a high level, at a height which would prevent the opening of flood-gates and stop most of the drains; he thinks in any case, now that most of the land is embanked in the Maitland and Pitnacree districts, that the floods get away quicker than formerly, when all low-lying lands were filled by the flood; he thinks that the cultivated lands at Fishery and Wallis Creeks might be still further improved if the creeks were embanked to guide the water to its exit instead of allowing it to spread all over the cultivation and flats; he thinks Mr. Price's scheme is too large to begin with, and would sooner see it carried out in detail on a small scale on the smaller rivers; he remarks that the Goulburn passes through sandstone rocks, and the whole bed of the river is filled with sand; he thinks that if such reservoir were made, it is not improbable that before many years the sand brought down would silt up reservoir to the level of the lower sluices; he thinks the sand would come through the sluices whenever they were opened as soon as it reached the level of the bottom; he thinks that hitherto there has been a tendency for settlers to place their banks too near the river.

Council Chambers, West Maitland, 3 May, 1899.

*Samuel Porter* :—I have seen all the floods since 1857; I do not know whether the 1893 flood was as high as the 1820 flood; I am of opinion that the channel of the river in high flood is inoperative,—as a proof of it I have observed at McCrae's Hollow that where the water overflowed the land from one bend to another the water was driven backwards and flowed up the channel; high floods deposit much silt on the land; the silt deposit is good manure except the sand; the sand mixed with silt makes good soil, but the bare sand does not; the sand deposits are brought on to the land by strong currents,—weak currents

\* No. 1 diversion is a straight cut from Bolwarra to Largs.

currents and still waters from floods deposit silt; I think that excluding the floods by means of an embankment is injurious to the land, and that the river-bed is rapidly silting-up with sand-beds and silt; before 1857, I noticed that the banks were sloping and often grassed; the 1857 flood was the first to commence to cut away the banks; I think the river is raised by the falling down and wearing away of the banks; the cutting called Gillies' Diversion has brought the sand which is now noticed to overflow the land; the cutting of the diversions proposed by Gordon would be a benefit to all parties at East and West Maitland; I do not think it would affect or increase the floods at Morpeth, because the water would get away quicker; if the flood is excluded from the land for a number of years the land would become impoverished; without manures, I acknowledge the land would get exhausted; if the people were compelled to use bone-dust and superphosphates they would be losers by the change,—the change being the excluding of the floods; I am not in favour of forming a reservoir at Denman; if an accident happened to the reservoir they would be all drowned at Maitland; if the bank at Cummins had not broken, the Belmore Bridge would have been carried away; the breaking of the Bolwarra banks and the town banks in 1893 was the reason why not so much damage was done as might have been expected; the system of farmers making the embankments as they like has the effect of one injuring the other, and there is no remedy yet for this sort of action; the Government system of inspection should prevail in the flooded districts, and the Government should have the supervision of erection and building of all banks; I am not prepared to answer whether the settlers would agree for the interest on the large sum involved in these reliefs; diversions proposed to shorten the river would have a very beneficial effect in getting the floods away quicker; I advocate the diversion of the river from East Maitland to Morpeth,—that would cause as much relief as they want in this district, but I nor anyone else here do not wish to see the people at Morpeth injured for our benefit; the embankments by shutting out the floods have done harm to the farmers because when dry weather comes the ground produces nothing; I think they have made a bad exchange by keeping out the floods instead of letting them come over the land as formerly.

*John Gillies*:—Mr. Gillies does not think that he can give any evidence which would be of particular service seeing that so much evidence has already been given on the subject, and all the engineers have discussed the subject for years past; he is much concerned with the interests of West Maitland, and has been an observer of the flood prevention discussion for years; he does not wish that anything should be done to the injury of others; of all the schemes that he has seen for flood prevention he most favours that of Mr. Price for reservoir at Denman; he thinks that project the only feasible one to effect the purpose at the cost which is possible to be raised for this district; he thinks that the work is a national work, and that the Government should at least contribute one-half; he states that two former Governments have intimated to him that they would do so much: he caused to be published to the public of West Maitland Mr. Price's scheme, showed them how practical this scheme was, and endeavoured to allay the fears which were entertained as to the effect of such a dam breaking by telling them that the Johnstonville dam was not a case in point, because Mr. Price explained to him that if the Johnstonville dam had been properly built it would not have burst; this dam had been leaking for some years, and was defective in many details; Mr. Price explained to him that if the dam were built with the engineering skill which it required it would be impossible for it to carry away; he thinks that, as Mr. Price showed it, on the erection of his dam the land would not be flooded; as a proof that the foundations of the dam were good, he had since obtained a grant given by the Government of £800, which he used in sinking bores to test the ground of the foundations, and found it to be of a very reliable character; if the dam and proposed diversions, as proposed by Mr. Gordon, were to be the same cost, he still prefers Mr. Price's dam proposal; he thinks if the diversions were made, the full strength of the current at West Maitland would be much increased, and consequently there would be the more danger of cutting away the banks on the town side, and the same applies to the banks in the course of the river so altered.

Council Chambers, East Maitland, 2 May, 1899.

*John Ewing* said that he gave evidence at the first Commission in 1869, and then favoured the idea of making a cutting from Pitnacree down to Morpeth; this would not flood Morpeth; he had no proof of this, it was simply a scientific fact; Mr. Dickson offered the Government as much land in Bolwarra as would carry a canal from the river right from Bolwarra House down to the river at Largs; Mr. Moriarty recommended the Government not to accept the offer, because it would flood Morpeth; it would not flood Morpeth; the quantity of water that passes down the river in a given time is the same at West Maitland as at Morpeth; the water will not affect Morpeth more than West Maitland; there is no way of effecting the relief of the floods without straightening the river; the 1893 flood was much higher than any previous flood; there is no effective cure for such floods as the 1893 one; in the 1893 flood the water might have been 3 feet higher at Belmore Bridge, but that is only a guess; at Pitnacree Bridge the 1893 flood was 6 feet higher than any previous; it was much less at Belmore Bridge; if the bank at Oakhampton had stood, it would have caused a great inundation at Bolwarra; the banks put up by West Maitland and private people have had the effect of washing away much property, and if such banks carried away there would be serious consequences; the Government cannot regulate private people building the banks; the action of such persons building dams at their pleasure makes it risky for people opposite; the excessive bends in the river make channel inactive in a high flood, and a crooked channel is very inactive in time of flood, but it moves in some way underneath the surface of the water; silt and sand is brought down in time of flood, and deposited on the land between Maitland and Morpeth; if the channel were straightened there would be an effective flow in the right direction, and the great body of the deposit would be carried by; the land would lose a large part of the present deposit, but the farmers are taking deliberate steps to shut it out; Bolwarra farmers and others have told me that the crops are not nearly so good, now that the floods are shut out, as they were formerly; in this matter I do not think the Government has any function to interfere; I have heard of the proposal to make a reservoir at Denman, and do not think it a wise proposal; I think that the floods of the lower river are capable of flooding the district, even if the upper river were retained; in 1893 flood, the land was flooded before a flood occurred at Singleton; the effect of a dam at Denman would be to prolong the floods longer than otherwise, and such prolonging the floods is what the farmers most suffer by; such a dam would be very dangerous, if it broke away the results would be disastrous; the project is highly dangerous for the people living in the valley below;

the

the people of the valley of Maitland would be in a dangerous position if the dam broke; I would rather have the risk of being flooded than drowned; the effect of Gillies' Cutting was to lower the height of the flood at Belmore Bridge by 9 inches; this is proved by the fact that when the flood flows over the flood-gates now, it is 9 inches lower at Belmore Bridge than it was before any cutting was made; I think that this is a very good proof of the effects that would occur by straightening the river from Maitland to Morpeth; I expect great lowering from the bends being cut out; (this circumstance was told me by Dr. Alcorn); the flood-gates have been a blessing to the farmers at Fishery and Wallis Creeks; big floods, of course, come over the gates, but the farmers are relieved from numerous small ones; the embanking of the land carried out by farmers also relieves them from numerous small floods, but when big floods come over them they will be in a bad way: originally the only course of the floods was across Bolwarra Flats, and for that reason Mr. Dickson offered the Government land to make a channel through there; he also offered £1,000 or £2,000 to help the work, and when the Government would not accept his offer, to protect Bolwarra these banks were made; no channel or works of any kind would reduce the height of such a flood as the 1893 flood; the road from East Maitland to Pitnacree Bridge had a deposit of 2 feet of silt on it in the 1893 flood, which shows that there was no current in the water; in the 1893 flood there was very little current anywhere, for the flood-boats could be pulled about anywhere without being affected by currents: artificial works would nevertheless always be useful for numerous smaller floods up to 31 feet on Belmore Bridge; such floods have all to pass between the rising ground at Morpeth and Largs; I do not know what the strength of the current is there; if the river is straightened from Maitland to Morpeth it would cause a considerable drop in the usual height of floods; I do not believe that straightening the river can have any effect in increasing the height of floods at Morpeth.

*G. T. Chambers*:—The 1893 flood was 8 feet higher than previous floods in East Maitland; the 1893 flood was much less at Belmore Bridge than at East Maitland; the flood was falling from the back into the river over the timber embankment, and flowed across the railway embankment; the reason was that it flowed from the backwater into the river because it entered it at a higher level than is at Oakhampton; West Maitland platform was 9 feet under water in the 1893 flood; the railway embankment from Wallis Creek to East Maitland backed the floods and raised them higher than they would be; if the dams, flood-gates, and other obstructions now existing had existed in 1857, the 1857 flood would have been as large as the 1893 flood; the river is considerably higher than it used to be, and on account of being banked all round and shut in by flood-gates it will rise higher than it used to do; the clearing of the country has contributed to the rising of the floods more rapidly than before; the flood in Wallis Creek was much heightened by the railway embankment; the only way of mitigating floods is to begin lower down and improve the get-away; if the river is straightened from Maitland to Morpeth, means would have to be provided to get the rapidly-rising water away from Morpeth; a great deal of extra water would be brought down to Morpeth if the river was straightened which would also back-up the Paterson; the recent break through of the river at bends has lowered the flood levels in West Maitland; the bank at Cummins has saved the whole of the valley of West Maitland from floods; the banks at Bolwarra and Cummins have increased the floods at and below East Maitland; the best means of relief would be No. 3 diversion; people think that if that were cut, the river would silt-up between Green Rock and Raymond Terrace down to the mouth of the Williams; if this diversion were made only as for an escape, the tide would keep the river open; Wallis Creek has greatly silted-up its bed because of the flood-gates checking the run of water both ways; if diversion No. 3 were made merely as an overflow, the tide would keep the river channel between Raymond Terrace and Hinton open; I do not think it is true that schooners and steamers used to go up to West Maitland; the river from Morpeth to West Maitland is much shallower than it used to be; the clearing of the up-country generally has been the cause of the rise of the silt; floods out of the Goulburn bring great quantities of sand; I know of old trees being burnt down 9 feet in the ground, showing former deposits, and I know of fences being covered up by deposits of recent times; I know of places which were swamps when I was young, and are now cultivated; the effect of a great reservoir at Denman would be to prolong the floods; I do not think it would be an effective relief; such a dam is all very well for one flood, but when floods follow each other it cannot be used.

*George A. Eckford*:—I live at Pitnacree Road: the floods and the sediment greatly improve the land; when land is scoured, of course it is injured; Bolwarra has embanked its property, but it has impoverished its land; in making a diversion, and shortening the river, the people lower down should be considered; I have heard a lot of talk about these two diversions, and think that it would be the best that can be done; below Pitnacree Bridge the 1893 flood was 6 feet higher than any previous floods; I think the average depth of the flood over the ground between Morpeth and Largs is 5 feet; the current across this place is very strong in places in a high flood; the embankment put up by settlers has raised the river, and is injurious to the properties lower down; this refers especially to Bolwarra; the river in a high flood has no channel, as existing crooked channel does not act; the new diversions, with the banks raised by excavation, would have to be under the same condition as the original river with its present high banks; these proposed diversions are about the only effective remedy, provided they are carried down to the bottom, and not a partial scheme; I disapprove of the project of the reservoir at Denman; I fear it would result in bursting, like Johnson's reservoir in America; no municipality has received more Government assistance against floods than West Maitland, and all the Bolwarra embankments were subsidised, pound for pound, by the Government; I do not see why other parts of the district should not be also assisted; if the district were charged by the Government with the heavy cost of making reliefs proposed, the land would not be worth the taxes put on it.

*East Maitland Council Chambers, 1st May, 1899.*

The Mayor of East Maitland, in conversation with Mr. Bell, said that the water from the town runs out through under the railway, and some runs across the grass paddocks; the floods have kept on raising that land, and there is no get-away for the water over the land; we have no right to let the water away: two fences have been completely covered with silt.

*Mr. McLaughlin* said that the main drain from East Maitland reaches the river at Raworth; it is a very deep drain, the farmers cut it; it is not very straight, the depth is about 10 feet; this is the only drain we have from the town, and the water runs into the hollow beyond the railway, and between Morpeth and Maitland railway line, where there are some ponds; it is there where it has silted up so tremendously.

*Mr.*



*Mr. Bell*:—The ground has silted up so as to cover the fences in places? I know when the flood broke through beyond West Maitland, it lowered 18 inches; instead of cutting down behind the town, it cut across the road and into the river; it was higher in the back than in the front; the water bent the piles at High-street Embankment into the river.

Fishery Creek never comes over the bank after it has come down the river? Wallis and Fishery Creeks could never rise over the bank unless it filled from Oakhampton.

And supposing that the bank stands and does not break, what do you imagine would happen? I believe the Belmore Bridge would be carried away.

And you say it would rise the river under the Belmore Bridge? I know a friend who lives beyond the bridge, and he said that half an hour after the embankment went at Oakhampton, it was lowered 18 inches.

*The Mayor*:—The water above the bridge lowered 18 inches within half an hour after that embankment gave in; I believe that under the Hospital, at Campbell's Hill, was originally the river.

*Mr. McLaughlin*:—I gave evidence in 1869; there was a proposal to cut a canal from beyond West Maitland into Hexham, and since that time Mr. Price has made a survey of a large reservoir at Denman—which do you favour? I favour the canal, because the water that goes down the canal will be outside Nobbys before the water that went through the river would be at Morpeth.

But the canal would shorten the river by 15 miles? Well, the canal would shorten the river more than from Morpeth to Hexham, because it is 16 miles from the bridge to Morpeth by the river, and it would shorten it by 10 miles; of course the cut would be a straight one.

*Mr. Bell*:—Persons tell me that thirty-five years ago, schooners, ships, and steam-boats, drawing 7 feet of water, came to West Maitland; when I went up the river the other day in a boat drawing 3 feet, she stuck all the way up? When I came to Maitland they were building a steamer at the Horse-shoe Bend.

They tell me that the deposits brought down were mostly silt? I know a great deal of it is sand.

The country between here and Singleton is now more or less cleared;—that would allow a more rapid flow of the river, would it not? It would in one measure; there used to be no sand in the river; when I first saw it the river was not filled up with sand; there was 15 to 20 feet of water; on the bottom it must be gravel or mud, but it did not gather in heaps.

They are now banking the river up, and the object of that banking is to keep the river in its bed; this they have done more or less successfully except at high floods; the more they bank the river up in this way the higher the river floods will become? Yes, the river floods will be higher; it was 6 feet higher than it ever was before in Melbourne-street, East Maitland (the 1893 flood); it was higher than it ever was for the last fifty-nine years.

The more successful they are in embanking the river, the more they will keep down the silting-up process;—will that not be injurious to the land? It will be injurious to the land; they can afford to have a flood every five years, but it is hard to have three or four in a year; the silt caused by the floods is a valuable manure; if the river goes rapidly over the ground, it will take the substance out of the land; I have proved from a garden I had; I have seen 18 inches of silt on it.

What do you suppose is the average amount of silt that the flood leaves? I cannot say; it is all according to the way the water runs over the land; it will leave no silt on the land if it goes rapidly over it.

If you were to make this canal, the real effect would be that less silting would take place than now? I do not expect the canal would prevent the very large floods, such as the 1893 flood; it would do a great deal of good to prevent the ordinary floods, and it would lower the floods, and possibly shorten their duration.

What do you think about Mr. Price's dam? I would be very sorry to live within 10 miles of the dam; some of the land down at East Maitland would be flooded by a 10-foot rise.

You gave some evidence as to what the people would pay, or what you would pay? Yes; I think the same now.


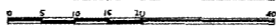
It was in 1822 that Mr. Cullen sailed a boat up Melbourne-street, East Maitland, and landed stock on Stockade Hill; the mayor said that the 1893 flood, in East Maitland, was the highest, and that the water was 2 feet higher this side of the railway than on the other; the only get-away was the little culvert in the railway; the water was 4 feet 6 inches in the Council Chambers.

[10 Plans.]

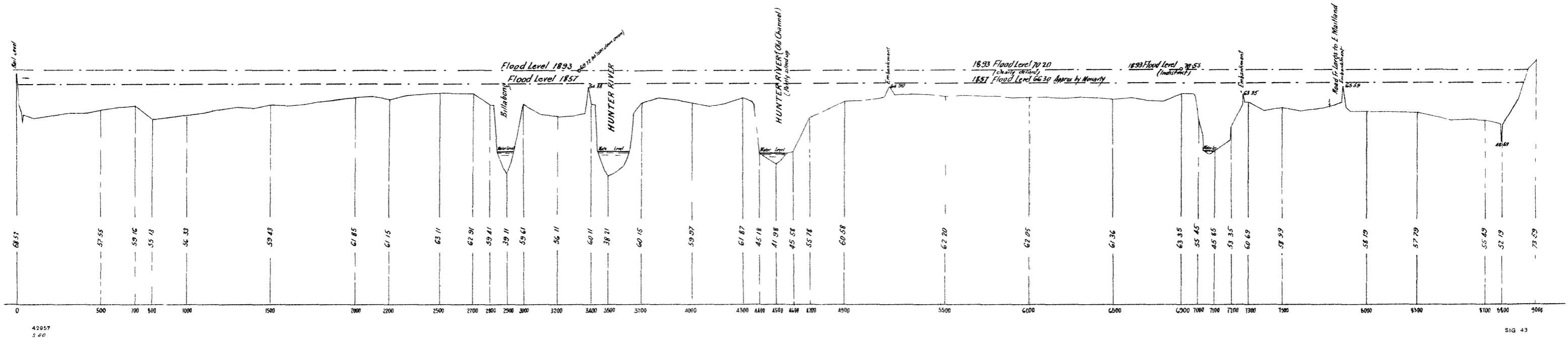




H.R.F.R.W.  
 CROSS SECTION XX  
 Morpeth Tramline to Largs

Horizontal Scale   
 Vertical Scale 

*Let's give Bell  
 20 June 1899*



42957  
 5.00

Photo-lithographed by  
 W. A. Gollish Government Printer  
 Sydney N.S.W.

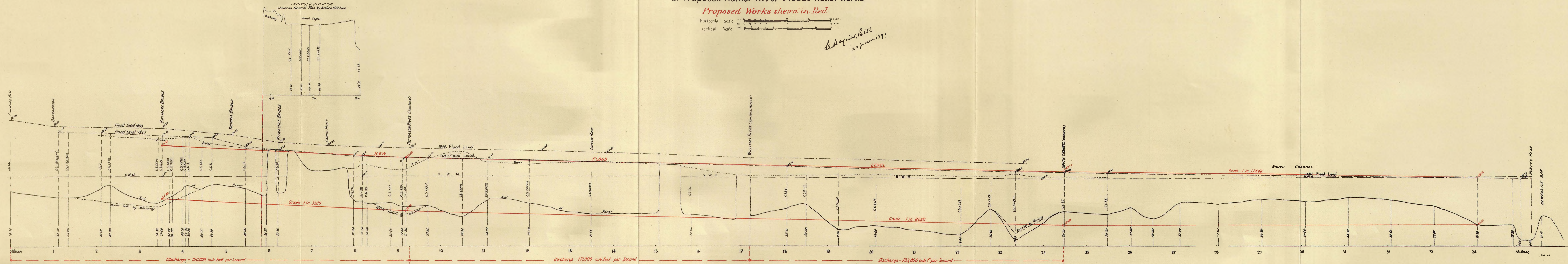
SIG 43

# LONGITUDINAL SECTION of Proposed Hunter River Floods Relief Works

*Proposed Works shown in Red*

Horizontal Scale: 1" = 1 Mile  
Vertical Scale: 1" = 10 Feet

*See Appendix Sheet  
20 June 1897*



Photographed by  
W. A. Gillis, Government Printer,  
Sydney, N.S.W.

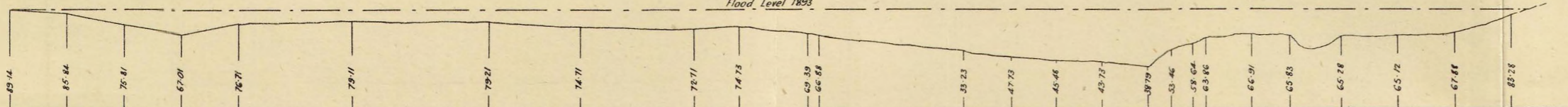
HUNTER RIVER FLOODS RELIEF WORKS  
CROSS SECTIONS OF RIVER

Proposed Works shown in Red

*L. Macquie, Shell  
20 June 1899*

OAKHAMPTON  
C.C.

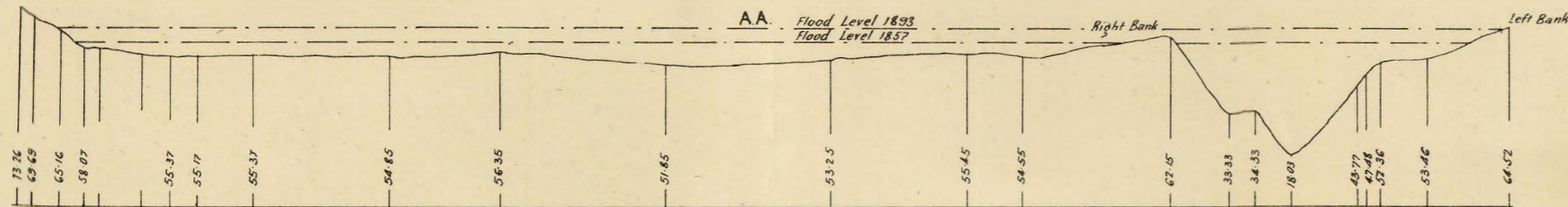
Flood Level 1893



Scale of feet for Section C.C.

AA

Flood Level 1893  
Flood Level 1857

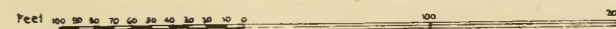


Horizontal Scale

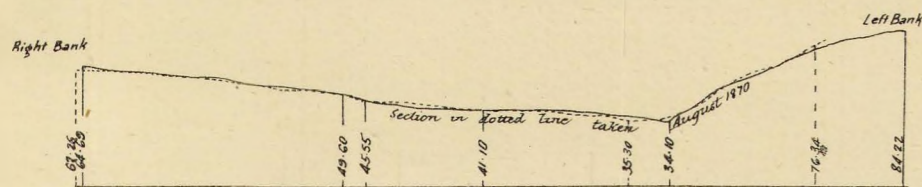
Vertical Scale

SCALES FOR SECTION AA

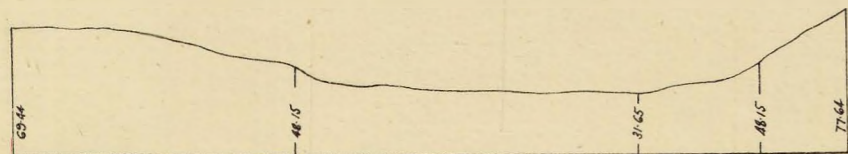
SCALE FOR SECTIONS 1-30



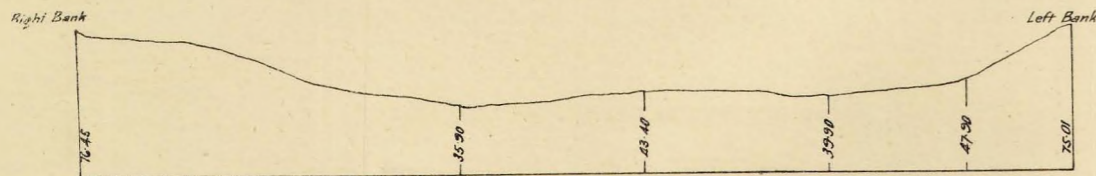
1  
OAKHAMPTON



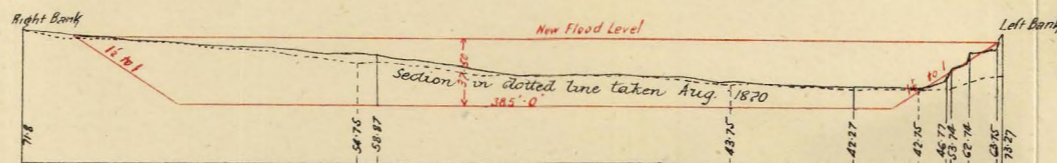
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BOLWARRAH HOUSE



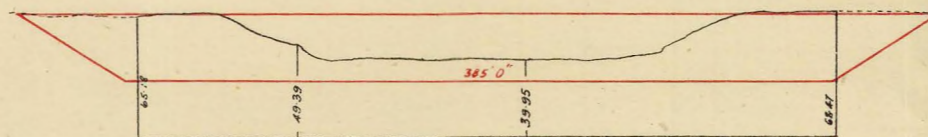
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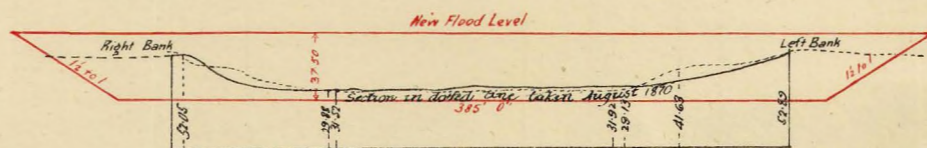
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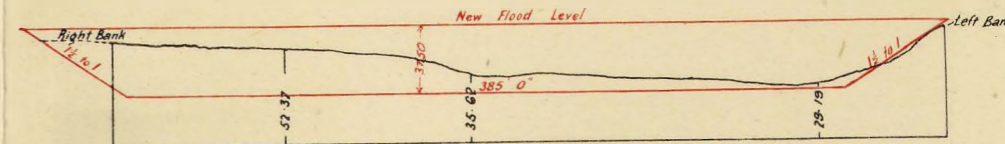
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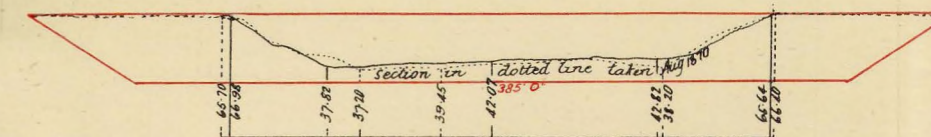
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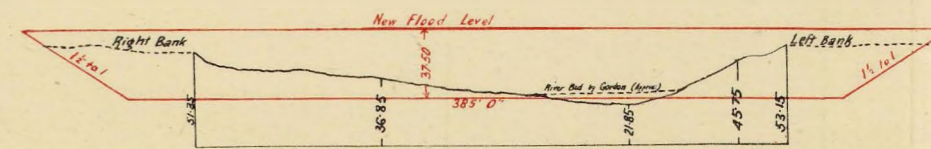
29



PITNACREE BRIDGE  
16



HINTON  
30



SIG 43

HUNTER RIVER FLOODS RELIEF WORKS  
 Cross Sections of River  
 Proposed Works shewn in Red

*Lehmann, Bell  
 20 June 1899*

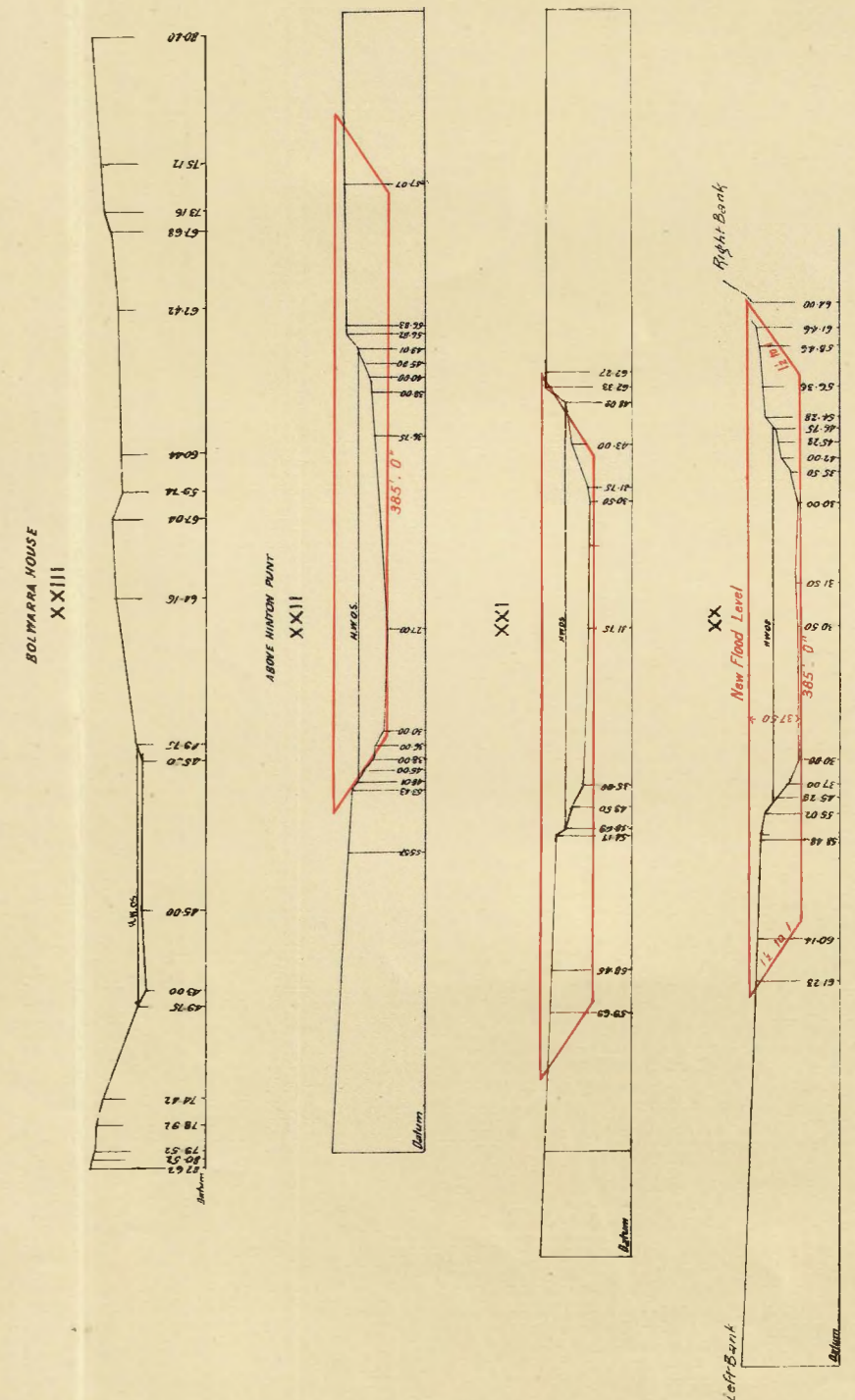
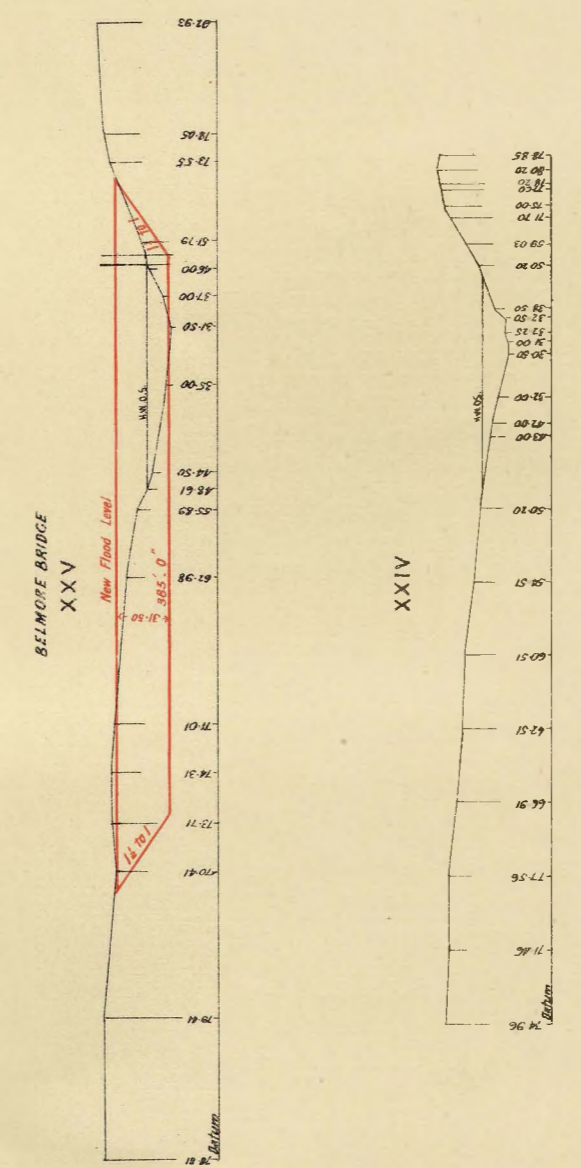
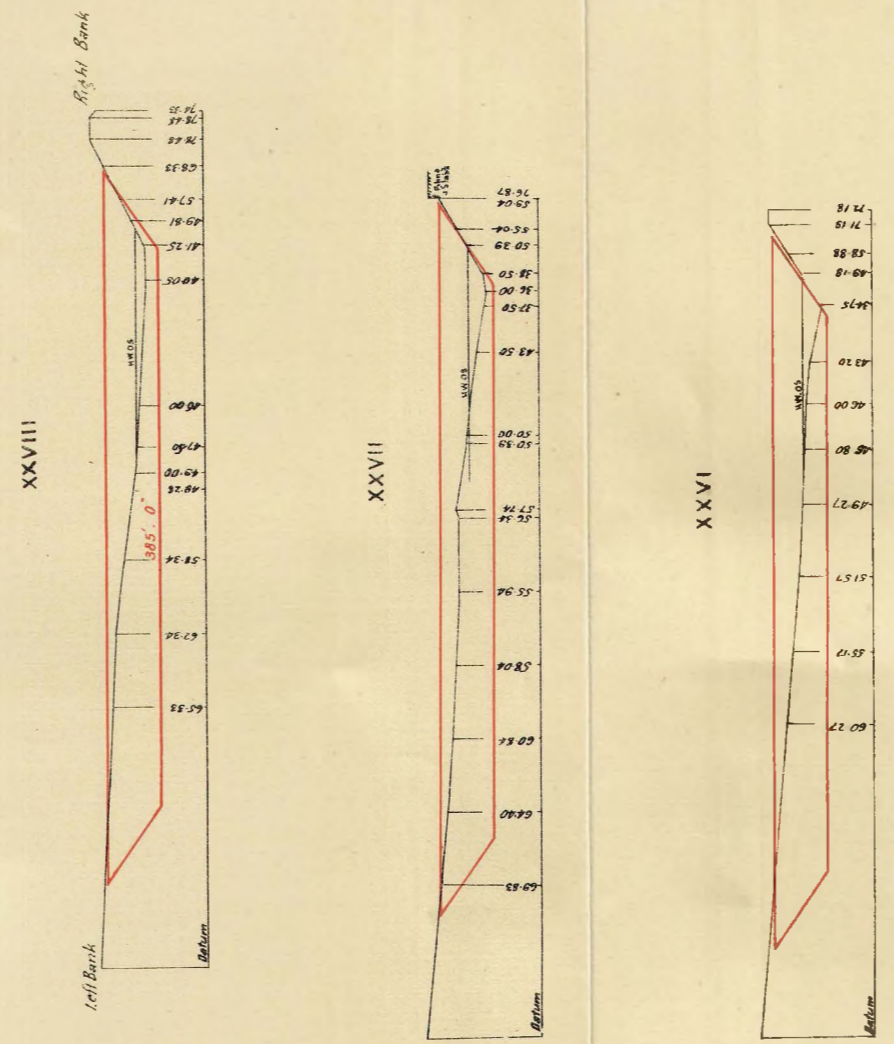
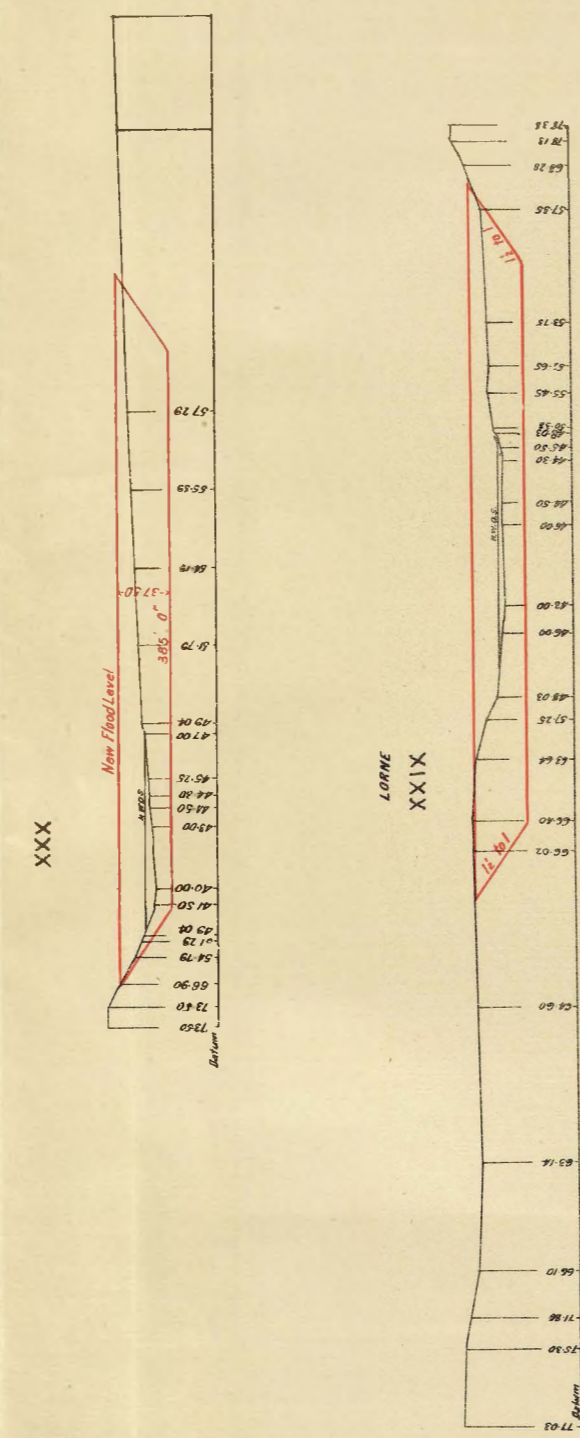
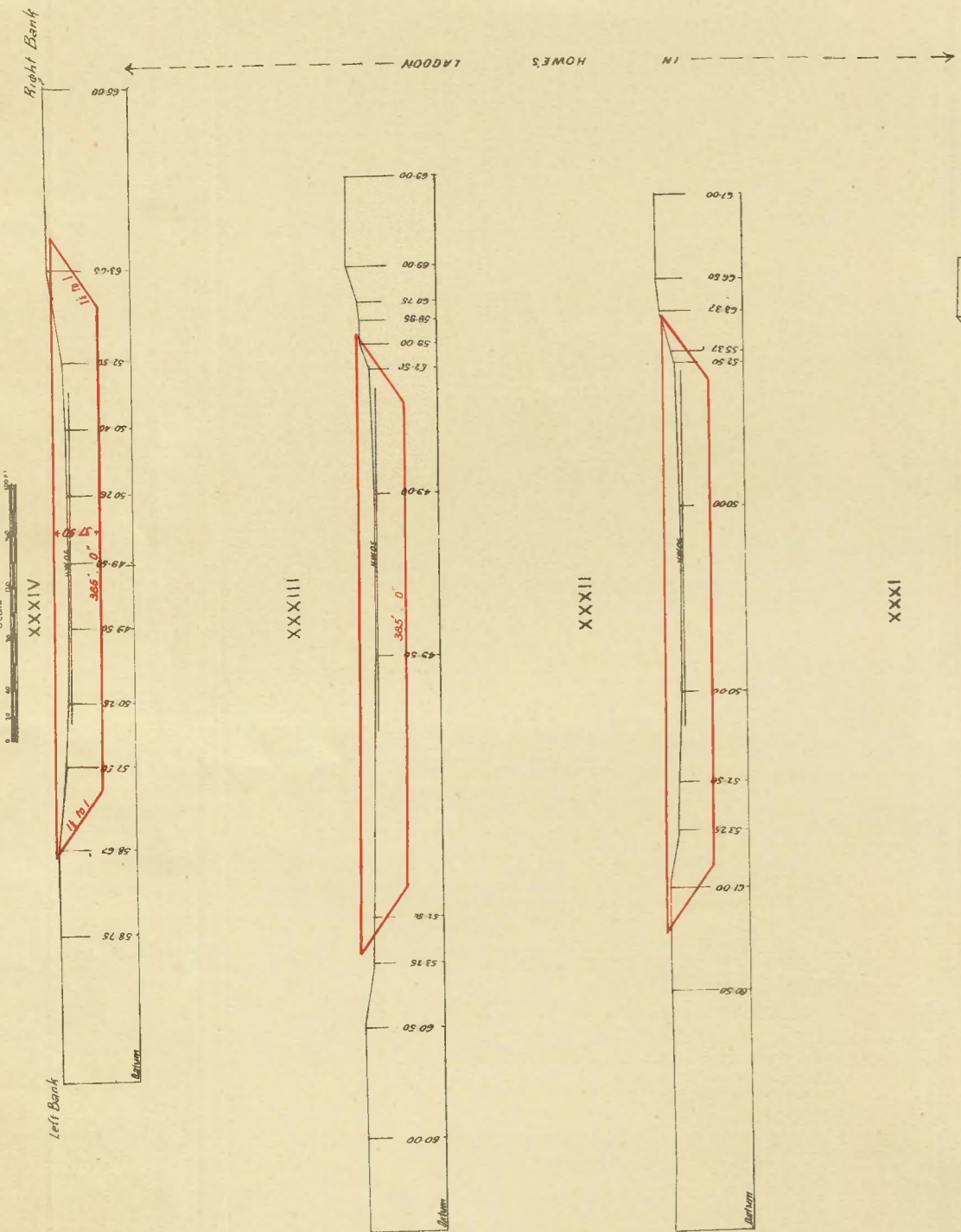


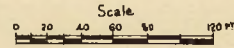
Photo-lithographed by  
 W. A. Gullick, Government Printer,  
 Sydney, N.S.W.

HUNTER RIVER FLOOD RELIEF WORKS

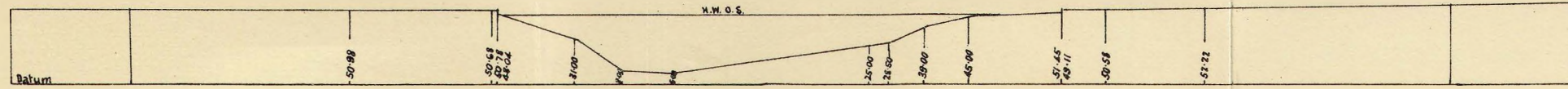
CROSS SECTIONS OF RIVER  
Proposed Works shewn in Red

*L. H. Cairns, Bell*  
20 June 1899

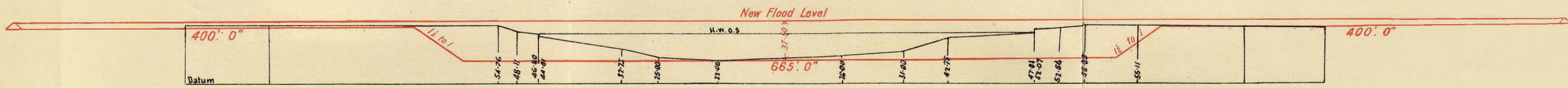
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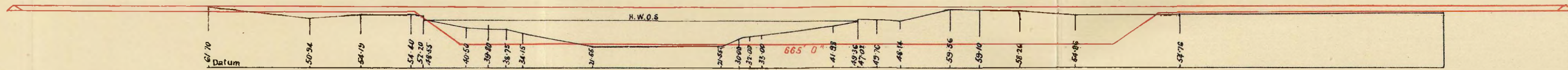
XLI



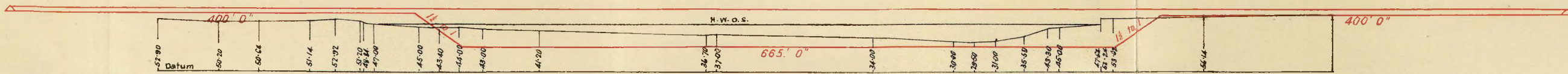
XL



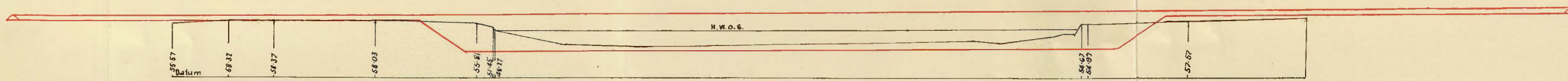
GREEN ROCK  
XXXIX



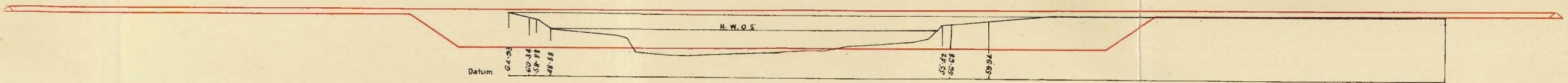
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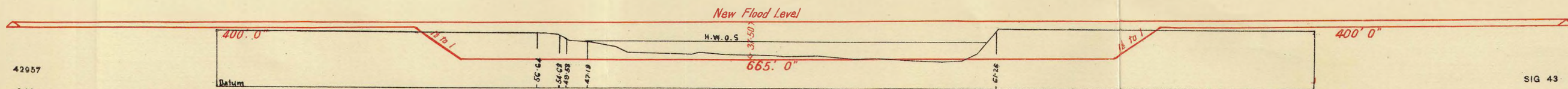
XXXVII



XXXVI



XXXV



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SIG 43





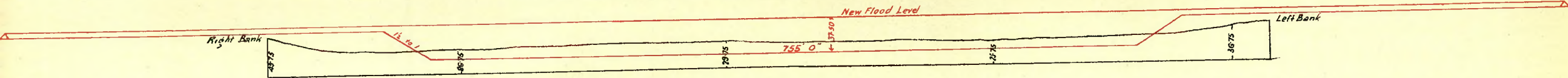
# HUNTER RIVER FLOODS RELIEF WORKS

## Cross Sections of River

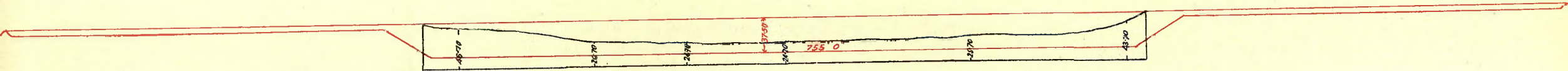
Proposed Works shown in Red

*Let aquies. Bell  
20 June 1899*

35



37



38  
HEXHAM

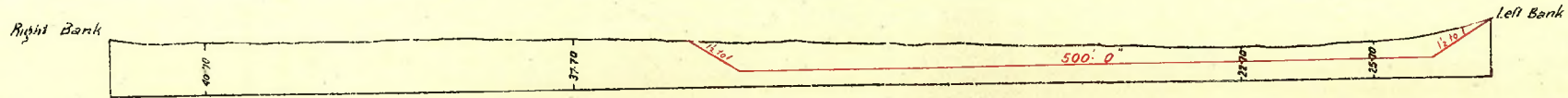
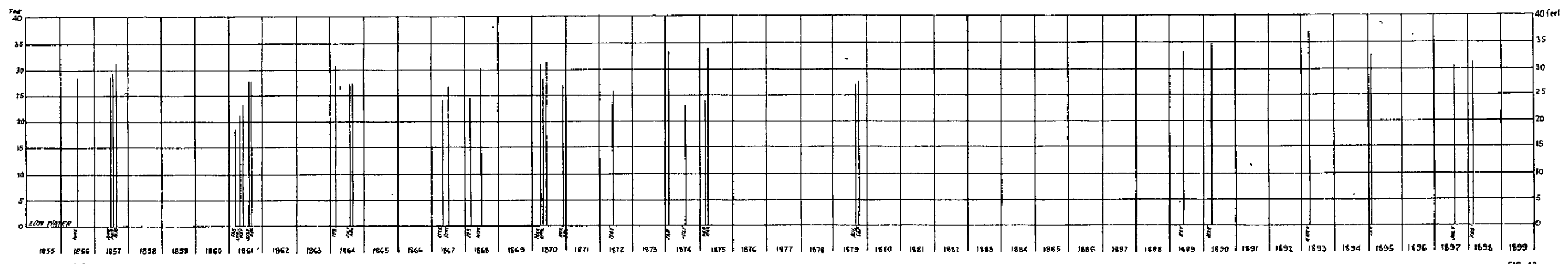


DIAGRAM OF FLOODS  
in Hunter River at West Maitland  
from 1856 to 1899

*L. K. Aguir, Bell  
20 June 1899*



42957  
S 207

Photo-lithographed by  
W. A. Gullick, Government Printer,  
Sydney, N.S.W.

FIG. 43

1899.  
(THIRD SESSION.)

—  
LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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# REPORT

OF THE

CIRCULAR QUAY ACCIDENT INQUIRY BOARD;

TOGETHER WITH

MINUTES OF PROCEEDINGS AND EVIDENCE

AND APPENDIX.

APPOINTED 26<sup>TH</sup> SEPTEMBER, 1899.

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*Printed under No. 12 Report from Printing Committee, 30 November, 1899.*

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SYDNEY: WILLIAM APPLIGATE GULLICK, GOVERNMENT PRINTER.

1899.

[2s.]



CIRCULAR QUAY ACCIDENT INQUIRY BOARD.

REPORT.

To the Hon. William John Lync,

Premier and Colonial Treasurer,—

THE Board appointed by you on 26th October, 1899, "to thoroughly investigate and report as to (1) the cause of the recent accident to the stage of the floating jetty at Circular Quay, and (2) whether the accident arose through negligence on the part of the Manager of Public Wharfs, the officers of the Public Works Department, or any other Government official," have the honor to report as follows:—

The Board has made a careful inspection of the scene of the accident and of the fractured stage. They have held twelve sittings, and have examined twenty witnesses.

The decked pontoon and landing stage at which the accident occurred were located at the south-east corner of the Circular Quay, near the foot of Phillip-street. The pontoon is approximately 60 feet in length and 35 feet in breadth, and was moored by chains and anchor some 20 feet distant from the Quay wall. The space between the pontoon and Quay was bridged by a platform or stage 24 feet in length and 11 ft. 2 in. in width, the actual width available for traffic being 10 ft. 10 in. It was constructed as follows:—Three 10-inch by 5-inch longitudinal Oregon beams secured at the shore end by wrought-iron hinges, one to each beam, and resting at the outer end on the deck of the pontoon, on which the stage was free to slide between guide-pieces with the rise and fall of the tide. The beams were framed and bolted together by 1-inch wrought-iron tie rods and nuts, 4 ft. 4 in. apart, and on them were nailed transversely 2-inch hardwood planks, extending 7 inches over the face of the outside beam and forming the decking of the stage. Hand-rails were secured to each side of the stage by 4-inch by 3-inch hardwood stanchions bolted to the outside beams; the top rail was formed by 3-inch by 3-inch hardwood, notched diagonally into the top of the stanchion. The middle rail was formed of 3-inch by 2-inch hardwood checked over the stanchions and secured with nails.

The Board inspected the broken beams in the Water Police Court premises, where they were laid out in their relative positions. The wood was very much decayed, particularly on the top side of the beams, which had been opened up by the many nails driven from time to time through the deck planking, thus allowing the damp to percolate—the combined action of rain, rust, and dirt all contributing to the general deterioration. Judging from the number of nails and holes in the beam, the Board is of opinion that the decking had been replaced on more than one occasion, although the Department of Public Works are cognisant of one redecking only. One side beam was broken directly through the middle, while the other parted about 3 feet from the centre, the effective section being reduced in the first beam to 5 inches by 5 inches, and in the second to 5 inches by 6 inches. The middle beam was broken in two places, viz., at the centre and at the end of the hinge, and had absolutely no sectional value whatever, it being supported from the decking. At all the points of fracture decay appeared to have been caused or hastened by rust from the bolts which passed through at these positions, the timber being largely perished wherever the iron had been in contact with it. The middle beam, owing to a permanent deflexion, had been at the time of the last repair through-fastened to the decking by three bolts, it being drawn up by this means in line with the other beams. The ends of the longitudinals had 10-inch by 4-inch hardwood fish-pieces 5 feet long bolted alongside, intended, apparently, to relieve the ends from the wear on the deck of the pontoon. These pieces gave no support whatever to the structure.

The

The Balmain Steam Ferry Company's steamer "Waterview," shortly before half-past 6 o'clock on the evening of September 23rd, was landing at the Floating Jetty a picnic party estimated to number 500 children and 200 adults. When a considerable number of the passengers had landed upon the pontoon, the boys, a majority of whom had left the steamer, were directed to remain behind until the whole of the girls had gone ashore. The teachers forthwith proceeded to muster them upon the stage, where they remained until the girls had reached the Quay. As the last rank of girls were stepping ashore the stage parted in the centre. It bore at the time probably from sixty to seventy children and a few adults—the exact number cannot be ascertained. When the boys commenced to move ashore the fracture occurred, precipitating them into the water and resulting in the loss of two lives.

The Board is of opinion that the accident was caused wholly by the defective condition of the stage. The Oregon girders had become so rotten as to be quite unfit to support even a lighter stationary load than that to which they were subjected at the time of the accident. It does not seem to have occurred to the men who redecked the platform two years ago that the permanent deflection of the centre beam was detrimental to it, nor does this defect appear to have been brought under the notice of any responsible officer of the Public Works Department. The workmen when examined as to the condition of the stage at that time stated that the timbers then exhibited no sign of decay. There can be no doubt whatever that decay must at that time have been active. The officer under whom the repairs were executed has since died, and the Board cannot ascertain that the girders were examined by him when directing the work, but the men who executed his orders appear to have had no doubt as to the soundness of the timber. Verbal reports are alleged to have been made by two watchmen at Circular Quay of what appeared to them evidences of the weakness of the stage; but the Manager of Public Wharfs, who has invariably acted upon the supposition that none of his officers are competent to express a reliable opinion upon the stability of the structures under his management, does not appear to have thought it incumbent on him to forward their reports to the Department of Public Works. One witness of the occurrence attributed the collapse of the platform to a shock imparted to it through the bumping of the pontoon by the steamer "Bald Rock." The steamer was undoubtedly close to the pontoon at the moment of the accident; but the Board are quite satisfied that she could not have touched it, and that her approach did not unduly disturb it.

The Board cannot discover that the accident is in any degree due to neglect of duty on the part of any officer of the Government. An unfortunate misunderstanding between the officers of the Department of Public Works and the Manager of Public Wharfs undoubtedly led to the use of the stage for a purpose other than that for which it was constructed. The Manager of Public Wharfs had purchased a pontoon to replace one, the use of which for both passenger and wool traffic had been sanctioned by special regulations, and the officers of the Department of Public Works constructed a stage upon the assumption that it would be used in connection with the pontoon which had been moored at the extreme eastern corner of the Quay, which had been used exclusively for wool traffic, and which had been removed and not replaced. The Manager of Public Wharfs, assuming that the structure handed over to him fully answered his requirements in point of stability, permitted its unrestricted use for both passenger and wool traffic. The Department of Public Works have had no official knowledge of the use of the platform. The only substantial repair of which any record can be found was effected in 1897; the stage was then replanked; and neither then nor at any other period was any intimation conveyed to the Department that the platform was, under any load, considered unsafe.

The evidence reveals a most unsatisfactory state of affairs in regard to the inspection of the many wharfs, jetties, and stages owned by the Government. There is an entire absence of responsibility on the part of any officer for inspection, however casual or superficial. The various structures, on their completion by the Department of Public Works, are handed over to the Treasury, which deposes its officer, the Manager of Public Wharfs, to arrange for their lease and general use and to collect the consequent revenue. No officer of the Department of Public Works is instructed to subsequently inspect this Government property with a view to insure its security

or

or reasonable and proper use ; and it is obvious that neither the Manager of Public Wharfs nor his subordinates, in the absence of the necessary technical knowledge, can satisfactorily discharge this duty. In point of fact, the Manager of Public Wharfs emphatically disclaims any responsibility in this direction, derived either from the terms of his original appointment or from any subsequent instruction, although he has been in the habit of directing the attention of the Treasury or of the Department of Public Works to any necessity for repair which has come under his own observation or that of his subordinates. The ordinary routine by which repairs have been effected has been as follows :—If, in the discharge of their respective duties, the officers, either of the Department of Public Works or of the Treasury, have observed any structure in need of repair, they have reported it to the head of their Department ; and the Department of Public Works has been formally requested by the Treasury to do what may have been necessary. Minor repairs, however, have been carried out by the Engineer of the Metropolitan District on the request of the Manager of Public Wharfs, or on the report of his own officers. All work of an important character has been referred to the Treasury, and has ultimately obtained the sanction of the Engineer-in-Chief for Public Works. This unsystematic and irresponsible inspection has afforded no guarantee for security. Nor is any supervision exercised as to the proper use of the large number of structures under the control of the Manager of Public Wharfs. Officers of the Department of Public Works have directed his attention to an obviously improper use of wharfs and sheds, and the cause of complaint has in each case been removed ; but in the absence of systematic inspection, and of such technical knowledge on the part of the officers of the Manager of Public Wharfs as would enable them to determine a safe limit, considerable damage might be done or great risk might be incurred before the intervention of the Engineer-in-Chief for Public Works was sought.

The Board has been informed that at the urgent request of the Under Secretary for Public Works temporary provision has been made for the inspection of the stages in use at the Government wharfs in the metropolitan district. It is, however, of opinion that an officer should be immediately appointed to systematically inspect the whole of the Government wharfs, jetties, and stages in the metropolitan district ; that this officer should report to the Engineer of the Metropolitan District and should be empowered to interdict the use of the whole or any portion of a structure which he might consider dangerous by reason of its defective condition, and to direct the discontinuance of any use of a wharf, jetty, or stage calculated to impair its security.

The Board desires to express its appreciation of the valuable services which have been rendered by Mr. B. H. Friend in his office of secretary and shorthand writer.

G. McCREDIE,  
Chairman.  
C. McALLISTER.  
W. McRITCHIE.

Board Room, 40, Young-street, Sydney,  
3 November, 1899.

B. HARRY FRIEND,  
Secretary.

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MINUTES OF PROCEEDINGS of the Board appointed to inquire into the cause, &c.,  
of the Accident, on 23rd September, to the Floating Jetty, Circular Quay.

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WEDNESDAY, 4 OCTOBER, 1899.

The Board met at the Board-room, 40, Young-street, at 10 a.m.

Members present:—G. McCredie, Esq.; C. McAllister, Esq.; W. McRitchie, Esq.

Resolved, on motion by Mr. McAllister, seconded by Mr. McRitchie, "That Mr. Geo. McCredie be appointed Chairman of the Board."

The Board having deliberated as to their procedure inspected, at the Water Police Court yard, the broken beams of the staging of the Floating Jetty.

The Board then proceeded to inspect the scene of the accident.

The Board, at 12:40 p.m., adjourned until 10 a.m. on Thursday, the 5th October.

GEORGE McCREDIE,  
Chairman.

---

THURSDAY, 5 OCTOBER, 1899.

The Board met at the Board-room, 40, Young-street, at 10 a.m.

Members present:—C. McAllister, Esq.; W. McRitchie, Esq.; G. McCredie, Esq. (Chairman).

The minutes of the previous meeting were read and confirmed.

The Board proceeded to the Water Police Court, where they resumed their inspection of the beams of the fractured staging, which had been placed as nearly as possible in their respective positions. The Board also took measurements and sections and the data for a calculation of the strength remaining in the structure at the time of the accident.

The Board then proceeded to the Government carpenters' workshops, Circular Quay, and thence inspected the decking and handrailing of the fractured staging. Planks constituting portion of the flooring were weighed with a view to obtain the weight of the entire decking.

The Board, at 4 p.m., adjourned until 10 a.m. on Friday, the 6th October.

GEORGE McCREDIE,  
Chairman.

---

FRIDAY, 6 OCTOBER, 1899.

The Board met at the Board-room, 40, Young-street, at 10 a.m.

Members present:—C. McAllister, Esq.; W. McRitchie, Esq.; G. McCredie, Esq. (Chairman).

The minutes of the previous meeting were read and confirmed.

Resolved, on motion by Mr. McAllister, seconded by Mr. McRitchie, that representatives of the Press be not admitted to the sittings of the Board.

The Secretary was instructed to furnish on application, daily, to representatives of the Press a summary of the proceedings of the Board.

The Board deliberated as to their procedure.

The Board, at 3:30 p.m., adjourned until 10 a.m. on Tuesday, the 10th October.

GEORGE McCREDIE,  
Chairman.

---

TUESDAY, 10 OCTOBER, 1899.

The Board met at the Board-room, 40, Young-street, at 10 a.m.

Members present:—C. McAllister, Esq.; W. McRitchie, Esq.; G. McCredie, Esq. (Chairman).

J. S. Cargill, Esq., Crown Law Department, was also present.

The minutes of the previous meeting were read and confirmed.

The following witnesses were sworn and examined:—William Henry Mitchelmore, Henry Aiken, Ole Hansen.

The Board, at 1:15 p.m., adjourned until 10 a.m. on Thursday, the 12th October.

GEORGE McCREDIE,  
Chairman.

---

THURSDAY, 12 OCTOBER, 1899.

The Board met at the Board-room, 40, Young-street, at 10 a.m.

Members present:—C. McAllister, Esq.; W. McRitchie, Esq.; G. McCredie, Esq. (Chairman).

J. S. Cargill, Esq., Crown Law Department, was also present.

The minutes of the previous meeting were read and confirmed.

The following witnesses were sworn and examined:—Matthew Agnew, William Edward Cullam, Alexander McMaster, Oscar Thomas Broughton Miller.

The Board, at 1 p.m., adjourned until 10 a.m. on Monday, 16th October.

GEORGE McCREDIE,  
Chairman.

---

MONDAY,

*MONDAY, 16 OCTOBER, 1899.*

The Board met at the Board-room, 40, Young-street, at 10 a.m.  
 Members Present:—C. McAllister, Esq.; W. McRitchie, Esq.; G. McCredie, Esq. (Chairman).  
 J. S. Cargill, Esq., Crown Law Department, was also present.  
 The minutes of the previous meeting were read and confirmed.  
 The following witnesses were sworn and examined:—Frederick Gerder, Francis Kirkpatrick,  
 Robert Rowan Purden Hickson, Cecil West Darley.  
 The Board, at 12:45 p.m., adjourned until 10 a.m. on Wednesday, 18th October.

GEORGE McCREDIE,  
 Chairman.

*WEDNESDAY, 18 OCTOBER, 1899.*

The Board met at the Board-room, 40, Young-street, at 10 a.m.  
 Members present:—C. McAllister, Esq.; W. McRitchie, Esq.; Geo. McCredie, Esq. (Chairman).  
 J. S. Cargill, Esq., Crown Law Department, was also present.  
 The minutes of the previous meeting were read and confirmed.  
 The following witnesses were sworn and examined:—John Williamson, James Walter Grimshaw.  
 The Board, at 12:15 p.m., adjourned until 10 a.m. on Monday, 23rd October.

GEORGE McCREDIE,  
 Chairman.

*MONDAY, 23 OCTOBER, 1899.*

The Board met at the Board-room, 40, Young-street, at 10 a.m.  
 Members present:—C. McAllister, Esq.; W. McRitchie, Esq.; Geo. McCredie, Esq. (Chairman).  
 J. S. Cargill, Esq., Crown Law Department, was also present.  
 The minutes of the previous meeting were read and confirmed.  
 The following witnesses were sworn and examined:—George Scott, David Mitchell, James Platt,  
 John Stephen, John Jackson, George Castle.  
 The Board, at 3:30 p.m., adjourned until 10 a.m. on Friday, 27th October.

GEORGE McCREDIE,  
 Chairman.

*FRIDAY, 27 OCTOBER, 1899.*

The Board met at the Board-room, 40, Young-street, at 10 a.m.  
 Members present:—C. McAllister, Esq., W. McRitchie, Esq., Geo. McCredie, Esq. (Chairman).  
 The minutes of the previous meeting were read and confirmed.  
 The Board, accompanied by the Engineer-in-Chief for Public Works, and the Engineer of the  
 Metropolitan District, proceeded to Cockatoo Island for the purpose of witnessing the test of an Oregon  
 beam (24 ft. 6 in. in length, 10 inches depth, and 5 inches in breadth). A dead load was applied in the  
 centre, and the beam broke under the stress of 7,980 lb.

The Board, at 2 p.m., adjourned until 10 a.m. on Monday, 30th October.

GEORGE McCREDIE,  
 Chairman.

*MONDAY, 30 OCTOBER, 1899.*

The Board met at the Board-room, 40, Young-street, at 10 a.m.  
 Members present:—C. McAllister, Esq., W. McRitchie, Esq., Geo. McCredie, Esq. (Chairman).  
 J. S. Cargill, Esq., Crown Law Department, was also present.  
 James Walter Grimshaw was further examined.  
 Angus Moir was sworn and examined.  
 The Board considered their report.  
 The Board, at 1 p.m., adjourned until 10 a.m. on Tuesday, 31st October.

GEORGE McCREDIE,  
 Chairman.

*TUESDAY, 31 OCTOBER, 1899.*

The Board met at the Board-room, 40, Young-street, at 10 a.m.  
 Members present:—C. McAllister, Esq.; W. McRitchie, Esq.; Geo. McCredie, Esq., Chairman.  
 J. S. Cargill, Esq., Crown Law Department, was also present.  
 John Jackson was recalled and further examined.  
 The Board considered their report.  
 The Board, at 12:40 p.m., adjourned until 10 a.m. on Friday, 3rd November.

GEORGE McCREDIE,  
 Chairman.

*FRIDAY,*

FRIDAY, 3 NOVEMBER, 1899.

The Board met at the Board-room, 40, Young-street, at 10 a.m.

Members present:—C. McAllister, Esq.; W. McRitchie, Esq.; Geo. McCredie, Esq., Chairman.

The Chairman submitted a draft of the Board's report.

Resolved, on motion by Mr. McRitchie, seconded by Mr. McAllister, That the report be now received.

The Board, at 11:30 a.m., adjourned *sine die*.

GEORGE MCCREDIE,  
Chairman.

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## MINUTES OF EVIDENCE

TAKEN BEFORE

## THE CIRCULAR QUAY ACCIDENT INQUIRY BOARD.

TUESDAY, 10 OCTOBER, 1899.

Present:—

C. McALLISTER, Esq. | W. McRITCHIE, Esq.  
 GEORGE McCREIDIE, Esq. (CHAIRMAN).

J. S. Cargill, Esq., Crown Law Department, was also present.

William Henry Mitchelmore sworn and examined:—

1. *Chairman.*] You are in the employ of the Balmain Steam Ferry Company? Yes. I am at present master of the steamer "Bald Rock."
2. You remember the 23rd September, the date of the accident to the floating jetty at Circular Quay? Yes.
3. You were in command of the "Bald Rock" on that day? Yes.
4. Will you be good enough to tell the Board, as nearly as you can remember, what you observed at the time of the accident? I was not at the wharf when the staging broke. I left Circular Quay on the afternoon of that day with a picnic party from, I think, a Wesleyan church at Newtown. It was a harbour excursion, and I took the excursionists on board at the floating jetty at about half-past 1 or 2 o'clock.
5. Were there many of them? I had, I suppose, speaking roughly, about 150 on board.
6. You had an opportunity to observe the excursionists as they came on board your boat? Yes. I went alongside the pontoon, and saw the secretary. I did not go on to the pontoon. There were only a comparatively small party of excursionists.
7. You were about to land the excursionists at the floating jetty at about the time of the accident? Yes; I left Clark Island at about a quarter-past 6 in the evening. My intention was to go to No. 4 jetty, but when I got about half-way down the cove, I remembered that I had heard the man who provided the refreshments telling the man who brought them down to the floating jetty to be there between 6 and half-past 6. I suddenly thought of that, and headed for the floating jetty, thinking that I had better land the passengers where I had got them from. As I was approaching the floating jetty, I heard a crash. The "Waterview" was alongside at the time disembarking her passengers. At first I thought the crash came from a small boat which might have been lying alongside the pontoon. I thought I might have crushed her, until I heard the shrieks. I had a fireman and deck-hand with me. My fireman had thrown the eye of the line over the bollard on the pontoon, and was holding the end of the line in his hand. As soon as he saw what had happened—or rather heard, because he could not see much—he dropped the line, rushed out on to the pontoon, jumped overboard, and assisted in the work of rescue. By this time all my people on the bridge had got out on to the iron surrounding the top deck to see what was the matter. As soon as I could force my way out, I asked them to get off the iron, because it was liable to collapse, and I then started to throw out life-buoys. Then to my surprise, I found that my ship was not fast, and I called out to the deck-hand to take a turn with the line.
8. Up to this point, you had not been fast to the pontoon? No.
9. On which side were you? The "Waterview" was alongside the eastern side, and I was coming in on the western side.
10. Did you touch the pontoon at all? No; I did not. So many people were standing in front of me that it was difficult for me to say the exact distance I was from the pontoon when I heard the crash; but I reckon that I was about 8 or 10 feet from it.
11. You are sure you did not bump against the pontoon? I never touched it.
12. *Mr. McAllister.*] You went astern before you lost headway? I was crawling in. I put my mouth to the trumpet to tell the engineer to go astern, and as I stood upright again I heard a crash; then I sang out "Stop."
13. Do you think it likely that your steamer caused a considerable wash? The wash of the steamer could not have reached the pontoon. We gave a couple of strokes astern, but the wash resulting from that could not have reached the pontoon before I heard the crash.
14. There was not sufficient wash caused by the motion of your steamer to joggle the pontoon, you think? I am quite sure of that. It was getting dark at the time; it must have been about twenty minutes to 7 o'clock, and, as I say, we were simply crawling in. You have to feel your way into these places, especially when there is a crowd of people standing about.

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W. H.  
Mitchelmore.  
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15. Did you go astern just after or just before you heard the crash? I put my mouth to the trumpet and sang out, "Go astern." I suppose there were one or two revolutions, and I had scarcely stood upright again when I heard the crash. I then called out "Stop!" and the boat merely drifted up towards the pontoon. The fireman had a line on the bollard, and was holding the end of it in his hand. When he saw what had happened he dropped the line and went off the boat at once.
16. You saw him jump overboard? I heard that he did so, but I did not see him. He afterwards told me that I had struck him on the back of the head with the first lifebuoy I threw out. The blow, he said, made him feel dizzy for the moment; but he rendered very good service in rescue work, although his name has not, I think, been mentioned. I saw him putting children on the lifebuoy and pushing them over to the water police to take them off.
17. What is the man's name? Frederick Gerdes. The name of the deck hand was Davis. I do not know what he did. As soon as I got a chance I passed out a lamp to give them as much light as possible.
18. *Chairman.*] I suppose that after the accident you landed your passengers at another wharf? Yes; when all those overboard had been picked up I went round to No. 4 jetty.
19. *Mr. McAllister.*] You say you were carrying adult excursionists? Yes.
20. And I suppose they would come down to your steamer singly or in small parties? Yes.
21. How long were you at the floating jetty before you left? I might have been there twenty minutes or half an hour before I got away. There were a few excursionists waiting on the pontoon when I arrived there, and others continued to arrive in detachments until they were all there.
22. At no time did you notice more than two or three persons together on the pontoon? I did not take particular notice of that.
23. I suppose it would not be usual in any case for passengers to stand on the staging; if they stood anywhere it would be on the pontoon? Yes, as a rule.
24. *Mr. McRitchie.*] What was the state of the tide at the time you are speaking of? It was pretty well full tide then.
25. *Chairman.*] During your experience as master of a steamer I suppose you have seen a great number of persons passing over the floating jetty in a body? Yes.
26. Do you remember any particular occasions? I have landed a large number of excursionists there from Sunday school and other picnics.
27. Do you think you have at any time seen as big a crowd on the staging as were there at the time when it gave way? I could not say. As a rule, when we get alongside we have quite as much as we can do to look after our own gangway stage. We cannot very well see what number of persons are standing on the stage of the pontoon. Our object is generally to get passengers out of the boats as quickly as we can.
28. And they are generally very anxious to get ashore? There is no doubt about that.
29. I suppose this particular floating jetty has been used mostly for the embarkation and disembarkation of excursionists at picnics? Yes.
30. It is the only jetty available for the landing of excursionists? No; there is No. 4.
31. *Mr. McRitchie.*] No. 4 jetty is used now for the landing of excursionists from picnics, is it not? Yes; I was there on Sunday. There were eight boats running from that wharf on Sunday.
32. But you were formerly in the habit of going to the floating jetty? Yes; it was the only jetty we could use. Occasionally we used the eastern side of the Watson's Bay jetty. We took people from there during the time the Manly company had the wharf; but now it is reserved for Government launches and the police. The police launch was moored alongside when we went in on the Saturday night. When people come down to engage steamers they generally mention the floating jetty, because it is the place where excursionists are in the habit of embarking.
33. *Chairman.*] What have you to pay for the use of the wharf? As a rule, before we have been alongside many minutes a wharfinger comes up. He generally knows the steamer is coming. When the parties come down from the picnic he finds out a responsible person, and obtains 10s. for wharfage. The parties hiring the boats pay the wharfage as a rule, not the company.
34. Suppose you went to the wharf with a picnic party, would you have to pay for laying your boat alongside? If we landed anyone there they would come on us for wharfage; but I have heard—I do not know how true it is—that we can lay alongside at any of the Government wharfs for ten minutes, and go away again without paying wharfage.
35. Do you remember seeing any money paid on this particular day for wharfage? The parties in charge of the picnic would do that.
36. Do they pay 10s. per diem, or 10s. every time they go alongside? The wharfage is 10s. a day—that is, 10s. has to be paid for every boat engaged.
37. *Mr. Cargill.*] Would the wharfage fee of 10s. entitle you to use any other jetty besides the floating jetty? Yes; No. 4.
38. So that you could take your passengers from, or land them at, either the one wharf or the other? Yes; as far as I understand the matter.
39. That is why you told the Board just now that your first intention was to return to No. 4 jetty? Yes.
40. Where were you when you changed your mind? About half way up the cove.
41. Was there any boat at No. 4 jetty? I did not notice.
42. Did you, when you changed your mind, see the "Waterview" alongside the floating jetty? I did.
43. Was there anyone on the pontoon? I could not say whether at that moment that was the case or not, but as I approached I saw people standing there.
44. How close were you when you first noticed people standing there? I was going in.
45. Were you 5 or 10 yards off? I suppose I was about 8 or 10 feet off.
46. And up to that point you cannot say whether or not you noticed persons standing there? No.
47. When you got to within 8 or 10 feet of the pontoon did you see any persons standing there? I saw a person standing there, but I did not take very much notice of him.
48. You did not see that it was crowded? No; I could not swear that it was crowded.
49. Had you seen it was crowded you would not have gone alongside? Yes I should; there would be nothing to prevent my going alongside, even if the pontoon were full of people.
50. Would not it be your object to get your passengers off as quickly as possible? I had only a handful of people in this case.

51. That is to say, 150? Yes; 150 persons on a boat like the "Bald Rock" is not many.
52. But there would be some difficulty in getting that number of persons on to a crowded pontoon? Yes. W. H. Mitchelmore.
53. I understand you to say that before you heard the crash you were not nearer than 8 or 10 feet from the jetty? Yes. 10 Oct., 1899.
54. Did you not say that when you first heard the crash you thought you were crushing a small boat against the jetty? Yes.
55. Could you crush a small boat in a space of 8 or 10 feet? Yes.
56. What would be the average beam of a small boat such as would be lying alongside the jetty? I should say about 5 feet.
57. So that, to have crushed a boat with that beam, you must have been closer to the jetty than 8 or 10 feet? Of course I could not swear to a few inches.
58. But you think you were about 8 or 10 feet away? Yes.
59. Where was the fireman who had the rope on the bollard? He was on the sponson.
60. Forward or aft? Forward.
61. That would be the only line you had out at the time? Yes. When we are coming alongside a wharf the fireman and the deck hand would be forward on the sponson; one would be standing by the paddle-box and the other forward.
62. Had not the man forward his line out? The fireman was forward.
63. Near the paddle-box? Right forward.
64. Where was the other man? He would be attending to the other line.
65. But you say he had not his line out? No. Of course I am only telling you what I have heard. I myself did not see what actually occurred.
66. How far from the pontoon were you when you gave the order to stop? I suppose I was 300 or 400 yards.
67. After that you gave no order until the crash came;—is that so? Yes.
68. So that the steamer at the time was drifting into the wharf? Yes.

Henry Aiken sworn and examined:—

69. *Chairman.*] You are master of the "Waterview," a steamer belonging to the Balmain Ferry Company? Yes. H. Aiken.
70. You were in command of the steamer on the night of 23rd September? Yes; I took a Sunday-school picnic down the harbour on that day. 10 Oct., 1899.
71. Will you tell the Board what took place at the time of the accident, as far as you were able to see? I will tell you what I did in connection with the picnic. I went alongside the wharf in the morning, and took away excursionists in three trips—at 9, 11, and half-past 1 o'clock.
72. Did you start from the floating jetty? Yes.
73. Who arranged the picnic? I am not sure, but I think it was a picnic in connection with the Church of England Sunday-school at Enmore. I started on the first trip about a quarter past 9 o'clock.
74. How many passengers did you take on that trip? I think there were about 500 children. I am going by what the secretary said. I asked him how many children there were, and I think he said 500.
75. I suppose there were some adults also? There were a few teachers, but the passengers on that trip were mostly children.
76. How were the children embarked—did they march on board, or did they rush on board as they pleased? They were marched on to the boat.
77. Did they march over the staging on to the pontoon? Yes.
78. Were they marching in file in an orderly way? Yes.
79. Did you take any particular notice of the pontoon at the time? No.
80. How many passengers is your boat supposed to carry? 680 adults.
81. Is it a paddle-boat? Yes.
82. At what time did you make your next trip on the 23rd? At 11 o'clock.
83. How many passengers did you take on that trip? There might have been about 200.
84. Were they children? No; they were chiefly adults. It was the visitors' boat.
85. You made another trip at half-past 1 o'clock? Yes.
86. How many passengers did you take on that trip? About twenty, I think. They were all adults.
87. Do you think that on the occasion of any of those trips there were as many persons on the platform as were there when it broke later on in the day? No; I do not think so.
88. You brought the whole of the excursionists back in the evening in one trip? Yes; and I had not a full load then.
89. About what time did the accident happen? Just before half-past 6 o'clock.
90. Did you take any notice of the state of the tide then? I did not.
91. You came into the floating jetty? Yes; into the eastern side. There were 500 children and about 220 adults; but I am allowed to carry two children under the age of 12 in place of one adult.
92. I suppose the carrying out of your duties as master would necessitate your being on the bridge? Yes.
93. And, being there, you would have a good view of what went on? Yes.
94. I suppose that, at the time of the accident, you were at your usual post on the bridge? Yes.
95. Will you tell the Board all you saw in connection with the accident? I cannot tell you very much about the accident, because directly the steamer is alongside we have to look after our gangway, especially in a case of this sort, when there are youngsters rushing about, and when there is a chance of someone falling overboard or getting injured. It is necessary to stand by the gangway from the steamer to regulate the disembarkation of the passengers. Although I was lying alongside the pontoon with the ship's head at the end of it I did not know what was occurring. I heard the crash, and the screaming which followed; but I really did not know what was the matter until some time afterwards.
96. You did not see the staging break? No; there was a crowd of people standing on the pontoon, and I could not see the staging.

- H. Aiken. 10 Oct., 1899. 97. Could you see whether the staging was crowded? I could not see the staging. I could see only the people on the edge of the pontoon. There was a steady stream of passengers going out. About 250 girls, I suppose, went first; they were mustered on the pontoon, and marched up on to the wharf across the staging.
98. They were got into some sort of order on the pontoon before they crossed on to the wharf? Yes.
99. Teachers were there, I suppose, in charge of the children? Yes.
100. Did they regulate the arrangements which were made for getting the children across on to the wharf? I suppose so. I had no more to do with them when they had crossed along my gangway on to the pontoon.
101. After the children got on to the pontoon the teachers had charge of them? Yes.
102. They took some of them up the platform and landed them? Yes.
103. But you say that you could not see the platform from where you were standing? No.
104. Were you thoroughly fast to the pontoon before you commenced to unload? Yes. I could not go in with any way on, because when I am fast to the pontoon I am only 3 feet from the stone wall. You will see that I have to go in very carefully. As soon as I come to the pontoon I allow the steamer to drift in. I can tell within a foot where I am, and of course I stop the engines at that.
105. You did not bump coming in? No. As soon as I got fast to the wharf I stepped out on to the paddle-box, and I noticed that there were two lines out forward and a line aft. I walked back to the telegraph and sang out "That will do."
106. The engines did not move afterwards? No.
107. You did not notice any vibration of the pontoon? No.
108. While you were lying alongside the pontoon, and when you had made fast, did you notice another steamer approaching it? Yes.
109. Did she have much way on her? No way at all.
110. Which side was she on? On the western side--on the side opposite to me.
111. How far do you think she was from the pontoon? She was from 10 to 15 feet off when I first saw her.
112. You did not notice whether the engines were going? They were stopped at that time. She was just drifting in.
113. You are quite sure she did not strike the pontoon? Well, I was standing alongside the gangway, and if she had struck the pontoon she would have shifted it, and I should have felt the shock.
114. You do not think the steamer coming in created any wash which shook the pontoon? I cannot see how it could do so, because she had such little way on her. One turn at the outside would bring the boat to a standstill.
115. Would the pontoon loaded or unloaded be more affected by an approaching steamer? I should say it would be more affected unloaded.
116. But you did not notice that it was affected at all by the "Bald Rock"? No; I do not see how it is possible for the "Bald Rock" to have affected the pontoon in coming in, because she was hardly moving.
117. What did you do when the accident happened? I could do nothing. My deck-hand and fireman ran away to ascertain exactly what had occurred, and I had to stand by our own gangway regulating the disembarkation of passengers as best I could. The people were simply frantic when they heard of the accident.
118. Did any of your hands jump overboard? I think not. They were all dry when I saw them after the accident.
119. How long have you been in the charge of steamers of the Balmain Ferry Company? I joined the Balmain Company on the 28th May, 1882.
120. During the time you have had charge of the company's steamers you have had a number of picnics? Yes; I think I can touch the record as regards picnics and excursions. I do not suppose there is another man on the harbour who has taken away as many picnic parties as I have done.
121. Have you often on those occasions taken in your passengers at this particular floating jetty? Yes. I have embarked and disembarked some large picnics at that jetty.
122. Have you any idea of the number of excursionists? No.
123. I suppose it is a favourite place for the embarkation of picnic parties? Yes. We also go to No. 4 Jetty. At one time we had invariably to go to the floating jetty, but we go now sometimes to No. 4 Jetty. A picnic has been arranged for next Thursday, from Enmore, to go from the floating jetty, if it is fixed up in the meantime.
124. Do you, yourselves, make arrangements to go there, or do the persons arranging the picnics make the appointment? The arrangement is generally made between those in charge of the picnic and our manager.
125. Who pays the wharfage? The secretary of the picnic party generally pays the wharfage.
126. Have you on previous occasions, when you have gone to this particular jetty, taken away or brought back a greater crowd than were there on the 23rd? I dare say I have had as big a crowd; my boat carries 680 adults, and allowing for the children, I do not suppose I had more than between 500 and 550 adults on the 23rd.
127. That would be considered a rather full picnic? No; we have had bigger picnics than that.
128. Have you noticed upon any particular occasion when you have landed passengers at the floating jetty that they crowded the platform more than they did on this particular occasion? That I could not say. As a rule, when picnic parties get alongside the pontoon or wharf, the teachers muster the children to see that they are all there, and there is then a steady stream of passengers from the boat to the wharf. The children generally keep together until it is ascertained that they are all there.
129. Do you mean to convey that the children massed together would form a heavier crowd in disembarking than would an ordinary crowd of grown-up persons leaving the pontoon? Yes.
130. Because the children are mustered on the platform and then marched off in a body? Yes.
131. *Mr. McRitchie.* It is a rule of your company that you stand by the gangway when disembarking passengers? Yes. If I cannot be there myself, I see that someone else is there; but I am generally there myself.
132. You were standing by the gangway of your steamer when the children went on to the pontoon? Yes.
133. Did they leave the steamer quietly? Yes.

134. You had a stage with a double railing leading on to the pontoon? Yes.
135. Your responsibility ceases when you get the children from your steamer on to the pontoon? Yes. I cannot understand the staging giving way with a few children upon it. You would think that if you piled the staging up with as many children as it could hold, it would stand and would not carry away.
136. Did you notice whether it was high or low water at the time of the accident? The water was pretty low. I could not say whether it was ebbing or whether there was a young flood.
137. The staging would go well up and down in that case? Yes. I do not know the height of the pontoon, but it is higher than No. 4 jetty.
138. The lower the water the less the strain upon the staging would be? That, I think, would be the case.
139. *Mr. McAllister.*] Had you only one gangway out? The floating jetty is not long enough to admit of my putting a gangway out aft.
140. There would be no room for you to put out a second gangway? No.
141. Your deck-hand and fireman were assisting you to regulate the exit of passengers? Yes. After the ship is made fast to the pontoon or wharf their duty is to put the gangway plank out.
142. Assuming the gangway to be out, and your sponson to be close against the pontoon, would there be any children, teachers, or parents stepping off the sponson on to the pontoon, or were they all waiting their turn in an orderly way? In a case of this sort there are generally some adults who jump off close to the gangway in their effort to get out first. A great many persons went away and caught the tram, and did not know anything about the accident. The accident happened when the last batch of children were going ashore.
143. What would be the average age of the children you had on board? I suppose their ages would vary from 3 or 4 years to 10 or 12 years.
144. Would there be any children of 14 or 15 years of age? Some of that age.
145. The children mustered on the platform would naturally be of the more helpless section of the party? I do not know what their regulations are; but I should think that all the children, whether big or small, would be mustered.
146. You say that it was when the last section of the children were being landed that the staging broke down;—would you be able to see from where you were standing on the steamer that that was the case? No; I could not see it from where I stood. I could not see the gangway from the steamer.
147. It being low water, you could not see over the heads of those on the pontoon? No.
148. The Board wish to arrive at a reasonable estimate of the weight of the children on the gangway at the time it broke down. You have said that it was when the last section of the children from your steamer were passing over the gangway that it broke; these were little children who had been mustered on the gangway by their teachers, or whoever was in charge of them? The children had been mustered, and, as far as I could gather, they were standing on the staging waiting for the other children in front of them to get clear.
149. After the accident what happened;—did your men stay on board the ship, or did they help to get children out? My deck-hand and fireman went away, but I, of course, could not leave the gangway.
150. Were there many people on the pontoon at the time of the accident? Yes.
151. They were pulling the children up on both sides, I suppose? Yes, wherever they could.
152. When did your steamer get away? We stopped about an hour.
153. All the children had been rescued before you left? Yes.
154. How did those who were on the pontoon get across to the wharf? I took them all on board again, and went round to No. 4 jetty and landed them there.
155. You landed at No. 4 jetty all who were on the pontoon? Yes. Grant, one of the boys who was drowned, was taken down to our stoke-hole.
156. He was insensible when recovered? Yes.
157. And he died about three hours afterwards? I believe so.
158. What measures were taken to resuscitate him;—was anyone in charge who knew the proper treatment? Yes; Dr. Paton. He was in the stoke-hole for nearly an hour conducting operations for resuscitation. It was not till after we had started for No. 4 jetty that I knew the boy was there. I then saw people looking down into the stoke-hole. Dr. Paton said, "He is all right; I am going to send for the ambulance, and have him taken to the infirmary." I said, "If the boy is all right you had better leave him here. It is a cold night, and he is wet, and has nothing on him. We will look after him." The doctor said, "It is all right, we will send him up to the infirmary." The ambulance came and took the boy away, and a couple of hours afterwards he was dead.
159. *Chairman.*] When the platform broke did it cause the pontoon to surge at all? It might have lifted up a little bit when the weight was off, but as to that I could not say much.
160. *Mr. McAllister.*] You did not notice much movement of the pontoon? No; there could not have been much movement. When everyone had got clear of the ship I went round afterwards with my hands to see exactly what had happened. The platform from the wall on to the pontoon seemed to have collapsed in the centre, and I think a great many of the children were pulled out before it parted altogether. Some children fell out on either side, no doubt; but I do not think many fell right down between the broken pieces of the staging.
161. *Mr. Cargill.*] Who went off your boat first—the girls or the boys? A great many adults went off first, and the girls followed.
162. Did you fix that order of going off? No; I had nothing to do with it.
163. So that as regards the disembarkation of passengers you had nothing to do with it except to see that persons did not fall into the water? Yes; all that I had to do was to see them safely off my boat.
164. You say that some adults went off first, and then the girls? Yes.
165. What children were leaving the pontoon at the time the crash actually took place? That I could not say.
166. Who were crossing the ship's gangway at the time the other gangway broke? A mixed crowd.
167. Were the girls all off? Yes; and I think they had gone up to the tram.
168. What persons remained on board your boat at the time the accident actually occurred? There were some adults and a few children. A great many persons kept their children on the boat and took them away themselves.
169. Were there any boys on your boat in charge of their teacher at the time of the accident? That I could not say.

H. Aiken.  
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- H. Aiken.  
19 Oct., 1899.
170. But you were at the gangway? Yes; but I could not keep my eye upon every one on board.
171. Do I understand you to say that the bulk of your passengers had disembarked? About two-thirds of them.
172. They were off the boat, but not off the pontoon? Quite so.
173. You do not know how many were off the pontoon? No.
174. You could not see them leaving the pontoon from where you stood? No.
175. Have you any idea how many persons were on the pontoon at the time of the accident? I could not say.
176. You were looking after something else? Yes.
177. You say your gangway was forward of your paddle-box? Yes.
178. Was there anything to prevent your seeing the gangway which broke except the people on the pontoon? Had there been no one on the pontoon I could have seen it.
179. So that the pontoon must have been pretty thickly crowded? There would not require to be many persons there to prevent my seeing the gangway, because it was getting dark at the time.
180. *Mr. McAllister.*] Were you standing with your back to Circular Quay? Yes.
181. *Mr. Cargill.*] Where was the "Bald Rock" when you could first see her from your position? About 10 or 15 feet from the pontoon. She was in a direct line out from the pontoon, coming in gradually.
182. How could you see her from where you were standing;—would not your paddle-box be in the way? No; I could see her.
183. What would be the width of the pontoon? About 50 feet, I should say.
184. The "Bald Rock," you say, was coming in almost in a line with the pontoon, and was about 10 or 15 feet off when you first saw her? Yes.
185. Did anything happen to direct your attention to her? No; I merely saw the top of her funnel over the people's heads.
186. All you saw was the top of her funnel? Yes; I saw her when she came up close. I could see the top of the paddle-box.
187. When you first saw her, you say you could see the top of her funnel, and she was then, you say, 10 or 15 feet from the pontoon;—in what position was she when you first saw the boat herself? She was alongside.
188. Was she as near to the Quay wall as you were? Not quite; the boat is not quite as long as my boat.
189. But she was within a few feet of the Quay? That I could not say. She was on one side of the pontoon and I was on the other. I did not take particular notice.
190. But you say she was 10 or 15 feet off when you first saw her;—after that you did not take particular notice? No.
191. You cannot say whether her lines were out when the accident happened? No.
192. You said in answer to the Chairman that the "Bald Rock" did not bump the pontoon or you would have noticed the shock? Yes.
193. I suppose there was a certain amount of motion in the pontoon during the whole time? Yes.
194. You said also that in your opinion it would take more to affect the pontoon when it was heavily loaded? Yes.
195. What you mean, I take it, is that the shock would not be so perceptible? We should feel the shock just the same, but it would take more to move the pontoon loaded than if it were light.
196. Do you not think it would be possible for the pontoon loaded to receive a shock without your noticing it? If we were on one side of the pontoon, and the boat struck the pontoon on the other side, we could feel the shock; we should probably hear it too.
197. But, as a matter of fact, you did not hear any blow? No.
198. Did you feel any motion when the gangway gave way? No.
199. Would you not expect to feel some shock? No; I think not.
200. As a matter of fact, you did not feel any extra motion when it gave way? No.
201. You also told the Chairman that there were not as many children at any time during the morning on the gangway as when it broke? I think that is quite right.
202. But, as a matter of fact, you do not know how many children were on the gangway when it broke? No.
203. So that you cannot speak positively upon that point? No.
204. When you said in answer to the Chairman that there were not at any time during the morning as many children on the gangway as when it broke, you really did not know? No.
205. As a matter of fact, there might have been more children there when it broke than at any time during the morning? Yes.

Ole Hansen sworn and examined:—

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206. *Chairman.*] You are in the employ of the Government? Yes; I am a watchman.
207. Under whom? Under Captain Jackson, the Manager of Public Wharves.
208. How long have you been in the service? Between eight and nine years.
209. Will you tell the Board what are your duties? They include a number of things. I am required, in the first place, to control the larrikinism on the wharves. The Department look to me to put a stop to it as far as I can.
210. You are employed in the daytime? I was originally appointed as day watchman at Woolloomooloo, and I was on day duty for several years. A change was afterwards made, under which the watchmen took night and day duties in alternate months. At the present time I am night-watchman one month and day-watchman the next month.
211. On the 23rd September, the date of the accident at the Floating Jetty, Circular Quay, you were on night duty? Yes.
212. At what time did you go on duty? I go on duty at 6 o'clock at night, and come off at 6 o'clock in the morning—eighty-four hours a week.
213. Do you recollect the accident? Yes.
214. Where were you at the time? I was standing at the inside corner of the landing stage of the Floating Jetty.

215. Will you tell the Board, as far as you can remember, what took place? I saw the "Waterview" coming in heavily loaded with passengers from a picnic. I was standing at the corner of the landing stage watching the passengers landing on the pontoon to the point of overcrowding. I spoke to one or two gentlemen on the subject, and I said, "There is going to be trouble." The reason I said that was that another steamer, the "Bald Rock," was approaching with passengers from another picnic. I could see that there would be danger to the pontoon with two heavily-laden steamers there at one and the same time.

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216. Danger in what way? Danger to life.

217. But from what—do you mean from a crowd overweighting the pontoon? No. The pontoon could carry as many as you could pack upon it. The danger I thought of was that resulting from carelessness, such as you generally see shown by people returning from picnics. I made an attempt to get down through the crush of people with the intention of warning the captain of the "Bald Rock" not to come close in until some of the crowd already on the pontoon had passed away. I should like, at this point, to mention a matter of great importance, so far as we watchmen are concerned. We labour under a great disadvantage. We are not recognisable among the crowd. As soon as we interfere, in the execution of our duty, we are regarded as persons who should be minding their own business. We have no outward and visible sign of authority.

218. You wear no description of uniform? No. We are continually being asked who we are and what we want. We are told to carry out certain duties, and we find it most difficult to carry them out for this reason.

219. You were saying that you went on to the pontoon with the intention of warning the captain of the "Bald Rock";—how did you get on? I could not get on at all; I had to give it up. The children were packed upon the staging of the pontoon like red herrings. A number of boys were mustered there.

220. You tried to get down on to the pontoon, I understand, through the crowd of boys mustered on the staging, and you had to give it up? Yes. In fact you may say the accident happened before I had time to give it up. As I was turning down the staging the accident happened.

221. But you had the intention, you say, of warning the captain of the "Bald Rock" not to come in on account of the danger which you thought might result from the landing of the additional passengers; I should like to know what particular form of danger you had in your mind; did you think that the mere fact of the steamer coming alongside the pontoon would affect it;—did you think, for example, that in the crowded state of the pontoon a concussion would affect it? What I had in my mind was that the pontoon was already overcrowded. Some officials in connection with the Sunday-school had practically taken charge, and they stood on the landing stage preventing the children from getting ashore. The children were packed on the stage like a small regiment of soldiers—I suppose with the intention of marching them up to the tram in that order. My common-sense told me that if the crowd from the other steamer got ashore among the crowd already on the pontoon, there would be confusion and perhaps trouble. I saw as I thought many hundreds of persons practically ignorant of the danger, and I thought someone should act.

222. Did you think that the platform itself upon which the children were mustered was unsafe? I did; I have thought so for a long time.

223. What were your reasons for thinking so? In the first place, there was an unreasonable weight put upon it. It might not be unsafe under ordinary conditions, but there was an unreasonable number of persons kept standing still on the staging, and it was never intended for that purpose.

224. What makes you say that the staging was never intended for that purpose? I presume that if it were intended for that purpose it would have been built of stronger material.

225. Did it not strike you that if the staging were intended for the landing of passengers, it should be strong enough to bear the weight of the people who would pass over it? It might be strong enough under ordinary circumstances. I have seen grown-up persons marching over the staging as closely as they could be packed upon it on many occasions. In this case there was a solid weight kept standing upon it.

226. Was your idea of the weakness of the staging derived from your seeing it at any time as you thought overcrowded? Yes; almost every time I have looked at the staging, when a crowd has been passing over it, I have seen it bending—springing up and down. I have seen a clear bend in it, almost a semi-circle.

227. It was that circumstance which made you feel anxious on this particular occasion then? Yes.

228. Is it within your province, when you notice anything of that kind, to report it? I thought it was. I have followed my own judgment in the matter, and I did report it.

229. Have you reported the staging as being in your opinion unsafe? I have.

230. When did you so report it? Allow me to explain. We have what we call a head watchman who gives us our orders, and who receives from us any reports or information. A man named James Platt—he is generally called George, I think—is the officer.

231. Was he the man to whom you made the report? Yes. I said, "Look here, George, that stage is not safe; there will be a great smash one of these days."

232. It was a verbal report then? Yes; I have never put it into writing, but I have spoken of it to Platt several times.

233. How long prior to the date of this accident did you last report the matter? It is not so very long ago.

234. Was it this season? No; last season.

235. Then it is practically twelve months ago? Yes.

236. On the occasion of your last report, had the platform been in use by any picnic or other party which led directly to your mentioning the matter? I was induced to mention it from what I had seen on several occasions when unreasonable loads of people have passed over the staging. From time to time it has occurred to my mind that the staging was not safe.

237. From your observation of the staging? Yes. An accident occurred to the stage at one time, when the ship "Brilliant" carried away the rails with one of her ropes. Some damage was done to the top part of the stage.

238. Nothing underneath was damaged by that accident? That I could not say. The rope lay over the top and it broke the railing, which was repaired. I remember on one occasion Platt saying to me, "I have reported the matter to the "Old Man"; we have done our duty, and the thing is now out of our hands."

239. *Mr. McRitchie.*] Whom do you mean by the "Old Man"? Captain Jackson.

240.

- O. Hansen. 240. *Chairman.*] Platt told you distinctly that he had reported the matter to Captain Jackson? Yes; he said, "Look here, Hansen, this is out of our hands. I have put the thing before him, and our duty ends there." That was the effect of what he told me.
- 10 Oct., 1899. 241. Have you ever made a minute inspection of the platform. Have you ever, for instance, looked underneath it? Not for the purpose of inspection. Of course, I have looked underneath it a number of times.
242. Did you know anything at all of the condition of the beams on which the platform is constructed? I knew that they were soft wood; I knew that it was a clumsy rig up altogether.
243. You are acquainted with the way in which the staging was constructed? Yes.
244. You know that there were three longitudinal pieces of Oregon with hardwood planking over the top? Yes. If you were standing on the corner of the pontoon at low water you could not help looking underneath the stage. I have looked at the thing casually, and I have said on several occasions that I thought it unsafe.
245. Do you know whether anyone has made an inspection of the staging during the past twelve months? I have heard that an inspection has been made; but I have not seen it made. Of course the inspection would not be made at night time when I was on duty, and when I am on day duty I am employed on the other side of the Quay.
246. You are generally standing near the floating jetty, I suppose, when picnic parties come in? As a rule I am there when they come in.
247. If you are on duty you are supposed to be about the place at that time? Yes.
248. How many other watchmen are there at Circular Quay having similar duties to perform? There are James Platt, Harry Jackson, and myself. There is another watchman named Waddy, who is always on night duty.
249. Were any of these other watchmen there on the 23rd, when the accident occurred? No; I was the only watchman there.
250. Did Platt say anything to you after you had reported the matter to him as to the safety of the staging? I am not quite certain whether he put the matter in writing or not; but the statement he made to me seemed to imply that he had done so.
251. I believe, when you were examined at the Coroner's inquest, you said something about the "Bald Rock" tapping the pontoon; did she, as a matter of fact, tap it;—did you see her strike it? I did not see her strike it; but I could see the effect of her striking it. Nothing else could have broken the staging, in my opinion. I am not speaking from mere memory of what occurred, because on the morning after the accident I put down in my note-book all the particulars, when they were quite fresh in my mind. I am not depending now at all on my memory.
252. You think the staging would not have broken unless something had touched it;—had you that note in your book? What I have in my note-book is this:—"There was a fairly heavy weight on the stage when the schoolgirls were on it. Then, when the boys were on it, it broke. The boys were little fellows."
253. Is it not possible that the heavier weight of the bigger girls may have strained the staging to the last point, and that, being strained, it may have broken when the boys were mustered upon it without anything touching it? The point is that the staging broke with a far less weight upon it than it had had. The heaviest weight was put upon it five or ten minutes before it actually broke.
254. You say you did not see the "Bald Rock" strike the pontoon, but you come to the conclusion that it must have struck it, because the staging broke? My conclusion is based upon direct evidence, so to speak, because I was looking at the steamer. She was so close to the pontoon that she must have touched it. Of course, it was approaching night-time. I felt the pontoon give a jerk. Something must have done it.
255. Do you think anyone on the pontoon would be in a better position to know whether the steamer struck it than would any person standing on the staging or on shore? They would be in a better position, providing their minds were not otherwise engaged.
256. Anyone standing upon the pontoon would feel the concussion? Yes; I myself felt it on the staging.
257. How do you know that what you felt was due to the steamer striking the pontoon;—might not the jerk caused by the breaking of the platform lead you astray in that respect. Would it not be very difficult for you, under the circumstances, to say definitely whether the steamer struck the pontoon? What makes me certain that the "Bald Rock" struck the pontoon is that no boats, especially a paddle boat, could come alongside under the circumstances without touching it.
258. Was the "Bald Rock" fastened to the pontoon at all? Afterwards; but not at the time the stage broke. The "Bald Rock" was overlapping the pontoon with her bow.
259. You saw that from the shore looking over the heads of the people? Yes.
260. *Mr. McAllister.*] But you have told the Board that you were standing on the stage;—are we to conclude that you saw all that you have described from that standpoint? Yes. The school officials were holding out their arms and preventing the children from getting ashore. If they had let the children run ashore the accident would not have happened; but the children were mustered in rows on the staging. I myself spoke to one of the teachers about it, and he wanted to know who I was.
261. *Chairman.*] Assuming that you were standing on the corner of the staging near the Quay wall, could you see from that point the steamer "Bald Rock" strike the pontoon? No. It is a matter of reasoning with me; she must have done so.
262. That is the conclusion to which you arrive, from what you felt? That is my idea, based upon the shock which the pontoon received. There was a heavy jerk on to one side, and that put the strain on to one of the girders. I am not now speaking from mere fancy.
263. *Mr. McEitchie.*] Was not the staging attached to the Quay wall? Yes.
264. *Chairman.*] Do you not think that the captain of the steamer would be better able than you are to know whether or not his boat struck the pontoon? No; I believe he could not tell. As a rule, the captain of the steamer would be attending to the engines, and there would be a number of passengers standing around him, so that he would have difficulty in seeing exactly what occurred.
265. You did not actually see the "Bald Rock" strike the pontoon, but you think she must have done so? Yes.

266. That, in your opinion, was the cause of the breaking of the staging? Yes. The girders got a jerk when they were at a good sharp angle. Perhaps in another position it would not have mattered.
267. Have you any idea at what angle the staging was towards the Quay when it broke? I suppose it would be about half-tide. Perhaps the water had risen about a couple of feet.
268. When the staging broke, did it fall right away? It snapped off suddenly. The whole thing went down in one lump, and the majority of the children on it were hanging on to the chains and rails.
269. Did the people on the pontoon help to pull the children out? No; they did nothing but scream and yell, and the men who did work had to fight their way through a frantic crowd in order to get at those they wanted to help. When the crash occurred I ran round, as I thought, to the police launch, because I thought substantial help would be required, but the launch was not at the jetty, and it was of no use to shout because the people on the "Bald Rock" were cheering and singing, while the unfortunate children in the water were shouting for help.
270. Did it not strike you, that seeing that the picnic season was approaching, it would be well for you to make a special report as to the general condition of the platform;—you have already told the Board that you did not consider it safe? I would have done so, but I do not think my report would have had much influence with the authorities.
271. You do not know of any official whose special duty it is to examine this platform? I do not know of any.
272. I think you said at the Coroner's inquest that you were present when the New South Wales Lancer Contingent went to England, and when they passed over this very platform? Yes.
273. Were they marched over it? Yes.
274. How many in a file? I think four.
275. How far apart? Just far enough apart to enable them to march comfortably. They did not keep step; they broke their step.
276. Did you notice much sagging or vibration of the platform? Yes.
277. Did it strike you then that it was not safe? It was as safe then, I believe, as when it broke. The staging would have broken on that occasion had it been put to the same test. Heavy weights pass over the staging frequently. Night after night the guard boat takes away a large number of soldiers from that place. I have seen a large number of soldiers passing over the stage frequently.
278. *Mr. McAllister.*] I presume you are referring to relief guards, consisting, probably of from fifteen to twenty men? Sometimes there have been as many as 200. I do not know where they would be going to or coming from.
279. *Chairman.*] I suppose, from your knowledge of the platform having sagged when you have seen weights passing over it, you concluded that there was a certain amount of risk attaching to its use? I always thought, when I saw a heavy weight going over it, that it would break sooner or later; but you know what happens in these cases. You get accustomed to seeing the weights pass over without the staging breaking, and you finally come to the conclusion that it is safe enough.
280. You were standing there when the first steamer came in? Yes.
281. Did she come in quietly, or did she strike the pontoon? She came in as nicely as ever I saw a steamer come in. She came in on the east side of the pontoon.
282. *Mr. McRitchie.*] When you reported what you considered the unsafe state of the staging to your superior officer, did he take it as an act of grace or as an offence? I did not report anything to Captain Jackson directly; I reported to James Platt. There has been a certain amount of misunderstanding in the Department, and Captain Jackson has furnished us with what I might call a sort of "boss." When there is anything to report we report to him, and he tells Captain Jackson.
283. *Chairman.*] The report goes through the man immediately above you? Yes; in the case of this particular accident, however, I made out a written report of it to Captain Jackson.
284. *Mr. Cargill.*] That was at Captain Jackson's request? Yes.
285. *Mr. McRitchie.*] You reported to Platt that you believed the platform to be unsafe? Yes.
286. And as far as you are aware he reported the matter to Captain Jackson? Yes.
287. But you have no authentic knowledge of his having reported to him? He told me that he had done so and that we had done our duty in the matter.
288. When the rope of the ship "Brilliant" carried away the rail of the platform, was much damage done? Not to the platform, only to the hand-railing.
289. No repairs were at that time made to the staging itself? The rails were fixed up, that is all.
290. How long ago would that be? I suppose it would be about a year and a half ago.
291. You have noticed since then what you described as a bending or sagging of the girders? Yes.
292. Have you noticed that for many years? It has been pretty much the same all the time. When it is low water the staging would have an angle of almost 45 degrees.
293. *Mr. McAllister.*] Surely not as much as that? Almost as much as that, I fancy. When it is high water you have to go up hill, say, about a couple of degrees above horizontal.
294. Do you recollect when the staging was last repaired? Yes; I was on day-duty then. I remember that the pontoon was away at Cockatoo Island getting overhauled. That would be a couple of years ago. The staging was taken away with the pontoon. It was put on to the pontoon and the whole thing was taken away.
295. When it came back did you notice that it had been newly decked? I saw that the stage was in the same condition as when it went away. They had done nothing to the stage as far as I could see.
296. Where were you standing when you first saw the "Waterview" coming in;—were you on the Quay, or had you taken up your position on the staging? I took up my position in the first place on the Quay for the special purpose of guarding against the danger which exists there. When you come off the staging and turn to the right, you are liable to walk into the water, because at that point there is no iron railing.
297. I understand then that when the "Waterview" came in, you were standing at the spot on the Quay wall, where there is no iron railing? Yes; my object was to prevent an accident at that corner.
298. How long did you stay at that spot? Until the stage broke.
299. But you said a short time ago that you were standing on the end of the stage when it broke? That is where I was standing when it actually broke. I stood a little while on the Quay, and afterwards I forced my way on to the stage. I was on it when the smash occurred.

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300. Did you fall into the water? No; I had hold of the handrail, and I immediately made a jump on to the Quay, rushed round to the Water Police and told them to hurry up. When I had given the alarm I came back.
301. When you were standing at the head of the gangway, whom did you notice coming up first from the pontoon? A lot of girls came up first, and they went straight away. The boys were afterwards mustered on the staging.
302. Were the boys who were standing there little children? Some were pretty small, but they would not be half the weight of the girls. The girls appeared to be young women.
303. Before the teachers stopped the children from coming ashore, had the gangway been filled with children? No; the girls were first landed, and as soon as they had passed away the boys came.
304. Were the girls coming up in sufficient numbers to fill the whole of the flooring of the gangway;—would you describe the gangway as full? Yes; and a number of grown-up persons were squeezing their way through the girls to get away.
305. The gangway was as full as it could be; it was just like a crush, I suppose, coming from a steamer? Yes.
306. When the teachers mustered the small children upon the gangway, in order to get them all together, were there other persons crowding past them? Exactly.
307. Then there must have been only a very small portion of the stage unoccupied? Yes; the only space unoccupied was that between the teacher and the edge of the wharf—say 3 or 4 feet.
308. Were you standing at the end of the staging when the teacher began to muster the children? I forget where I was at that moment, but fearing danger I kept getting nearer to the gangway. I tried to gain a hearing, but it was of no use.
309. Did your previous experience of the condition of the gangway lead you to give advice to the teachers as to getting the children off as quickly as possible? I have many times warned persons. Sometimes I have actually had to drive a horse and cart off the pontoon.
310. On this particular occasion, did you speak to the teachers? No; I had no chance to do so, on account of the noise and general confusion. Then, again, we are not recognised as officers of the Department, and people think we are interfering without any warrant.
311. When was it that you saw a horse and cart going over the staging? That is only two or three months ago. I suddenly looked round and saw a horse and cart standing on the pontoon; it got down there without my seeing it.
312. Was the gangway level then? Yes, or the driver would not have attempted it.
313. What description of vehicle was it? It was a single dray. It came down after tables and chairs after a picnic. I spoke to the driver. I said, "If your horse gets scared and goes overboard, who will pay the damage?" The man said, "Oh, it is all right." I said, "Suppose a steamer comes alongside?"
314. I suppose the horse went down on to the pontoon in the usual way, head first? Yes; it was not backed down. I told the driver to get off at once, and he did get off.
315. Did he go off before he had loaded his dray? Yes; I compelled him to go.
316. When he was going off, did you notice what effect the weight had on the staging? That would not affect the staging.
317. The cart was empty? Yes; there was not much in it.
318. You saw the New South Wales Lancers pass over the staging? Yes.
319. Did their horses go over with them? No; there were only the men themselves. A horse and dray, however, had been over the staging twice to my knowledge.
320. On what other occasion beside that which you have described have you noticed a horse and dray going over the staging? It would be further back. I made no memorandum of the date, but I should think it would be over a year ago.
321. Have you any recollection of what kind of vehicle it was? No; but I remember that it was a white horse. I should not be surprised if it was the same man who was standing there the other night when the accident occurred. I was speaking to a driver then whom I knew by sight.
322. It was a single dray which went over on the second occasion? Yes.
323. On what business was the driver there? He was taking away empties returned from a picnic.
324. On both occasions the driver was there in connection with a picnic? Yes.
325. Have you ever heard of a dray-load of fodder being taken over the gangway? I have heard something to that effect; but I was not there.
326. You have no personal knowledge of it? No.
327. *Mr. Cargill.*] In referring to the bending of the gangway when weights were passing over it, you used the words, "in a semi-circle";—where were you standing when you observed the gangway bend in, as you say, a semi-circle? I was standing a little distance away from it, about half-way between the Watson's Bay ferry and the stage—say about 150 feet away. My eye was in a horizontal line with it.
328. You say you were 150 feet away? About that.
329. Had you any particular reason for watching the stage when you say you saw it bend? I had a special reason.
330. What was it? Whenever a heavy weight goes over it, I always look at it.
331. What was the heavy weight on that occasion? A lot of grown up people.
332. How many would there be? The stage was full of them.
333. But how many do you think there were? Speaking roughly, I should think, there would be about fifty people on the staging.
334. Were they standing on the stage or passing over it? They were marching over it.
335. Did it appear to bend at any particular portion of its length? It was an even bend from end to end.
336. Did it appear to you to bend much? It appeared to bend too much to my liking.
337. How much was it out of the straight, do you suppose? I suppose at least from 4 inches to 6 inches.
338. That was due simply to fifty persons marching over it; when these persons came off the staging did it resume its natural position? Yes; but it never was thoroughly straight. It was naturally a bit curved. It sprang up to its natural position in such a way that an inexperienced eye would not be able to see any change in it.

339. But you think that when there was a weight upon it even an inexperienced eye could detect the change? In proportion to the weight, so it gave. O. Hansen.
340. You are sure that what you call the bending was not due to the pontoon becoming more submerged? 10 Oct., 1890.  
I am quite sure of that.
341. You know the weight of the staging does have the effect of submerging the pontoon? Yes; I know the pontoon goes down a couple of inches with a heavy weight.
342. But it was not that, you think, which gave the staging the appearance you describe? No.
343. You say you reported these occurrences to Platt? Yes.
344. Did you report to him more than once? On several occasions he and I had a conversation on the subject.
345. Did you report to Platt formally? I did.
346. How many times? A couple of times.
347. When was the first occasion? A couple of years ago.
348. And the second occasion? That would be a later occurrence—say a year ago.
349. On which of these occasions was it that Platt subsequently told you he had reported the matter to Captain Jackson? The last occasion.
350. That would be about a year ago? Yes.
351. Was anything done to the staging after that to your knowledge? I think some repairs were made to it, but I was on day duty at the time.
352. You did not see the repairs? No.
353. But you think that something was done? Yes; I think something was done in the way of planking.
354. You told the Chairman that you did not think it worth while reporting, because attention was not paid to your reports? I do not think I said that. What I said was that my reports would not be taken much notice of.
355. You say now that you thought your reports would not be taken much notice of? Yes.
356. Why did you think that? Because we are such insignificant individuals, we are supposed to know nothing.
357. Have you ever made a report that has been ignored;—do you mean the Board to understand that you have made reports which have been put aside without consideration;—is that what you mean? Well, I have brought several things under Captain Jackson's notice—things of which he has not taken any notice, so far as I know.
358. In fairness to Captain Jackson, will you say what the nature of these reports was? They were several unimportant matters pertaining to my duty in connection with certain things that are going on at night time. At one time, for instance, we had the unemployed sleeping here by the hundreds, and creating a lot of nuisance. I spoke of that several times. It seemed to me that people were getting so uncivilised that something would have to be done in the matter. I put the matter in writing, and directed it to Captain Jackson.
359. As far as you known no action was taken upon that report? As far as I know no notice was taken of it.
360. You do not know whether or not Captain Jackson did take notice of it;—all that you know is that he did not carry out your recommendation? He did not. The police took the matter in hand some time afterwards.
361. But you do not know that Captain Jackson did not communicate with the police? Of course not.
362. Because that particular report of yours was, you think, not taken notice of, you are of opinion that it is not worth your while reporting? We have no encouragement to report because our reports are not taken much notice of. I have reported to Captain Jackson how my authority is called in question, and that I am practically put down as an impostor when I collect the money. The answer I received was, "Do the best you can."
363. These would all be matters pertaining to your duty? Quite so.
364. But you did not consider it part of your duty to inspect this gangway? No.
365. *Mr. McAllister.*] Is it part of your duty as night-watchman to collect wharfage money from any vessel which comes alongside the Government jetties during the night hours when the office is closed? Yes. The whole thing is left in my hands after 6 o'clock.
366. Supposing anything unusual occurred calling for special mention;—to whom do you report? To Platt.
367. Suppose there were a fight, or that a horse fell over the wharf, what notice would you take of such occurrences? I should call for the help of the police.
368. Would you report them to Platt? I would tell him what had happened during the night. I pulled a man out of the water at 3 o'clock last night, and took him to the police station.
369. But you would make no special report of such an occurrence except to Platt? No.
370. And your reports to Platt are verbal? I only make written reports in special cases where I think there is a necessity for it.
370. Only when you are requested to do so? Sometimes when I am not requested. I was not requested to report the nuisance created by the unemployed.
371. On that occasion you put your report in writing without being requested to do so? Yes; my duty was to water the blocks, and I could not use the hydrant when those men were there, because they wanted to know who I was. That was why I had to report the matter.

THURSDAY, 12 OCTOBER, 1899.

Present:—

C. McALLISTER, Esq. | W. McRITCHIE, Esq.  
G. McCREDIE, Esq., CHAIRMAN.

J. S. Cargill, Esq., Crown Law Department, was also present.

Matthew Agnew sworn and examined:—

- M. Agnew. 373. *Chairman.*] You are a sergeant of the Police Force, and are stationed at Newtown? Yes.  
 12 Oct., 1899. 374. You remember Saturday, 23rd September? Yes.  
 375. I believe you were on special duty at a picnic on that day? Yes.  
 376. Is it a rule of the Force that a sergeant or constable is detailed for duty at these picnics? If the committee of the picnic apply for police protection, we have to go. We do not go unless we are asked.  
 377. What are your duties on these occasions? We endeavour to preserve order, and see that there is no rowdyism. We also assist the teachers.  
 378. Did you leave Newtown on the 23rd September, with the children who were going to the Christ Church Sunday School picnic? Yes.  
 379. How many children were present when they left Newtown? I think there must have been between 400 and 500; I do not think there were any more.  
 380. I suppose the children were brought down to Circular Quay by tram? Yes.  
 381. Were you present when they went on board the steamer "Waterview" at Circular Quay? I was.  
 382. Did you notice whether they were marched on to the pontoon and thence on to the steamer, or were they allowed to crowd on to the steamer as they pleased? They did not march down, but they walked down pretty regularly; perhaps five or six abreast. They were not marched down in a body.  
 383. The floating jetty from which they left was that at which the accident occurred at a subsequent hour of the day? Yes.  
 384. When the children and others were going on board the pontoon to reach the steamer did you take any notice of the platform or staging on which they walked? I did not.  
 385. You did not observe any movement in it? No.  
 386. You yourself crossed over on it? Yes.  
 387. And you did not notice any undue vibration? I did not.  
 388. At what time did the steamer leave Circular Quay? I think we left shortly after 9 o'clock.  
 389. Do you remember whether the platform leading on to the pontoon was fairly level, or whether it was on the incline? There was an incline from the Quay.  
 390. You do not know whether it was high or low tide? I do not.  
 391. At any rate, while the children were crossing to the pontoon there was nothing to indicate to you any weakness in the platform? Nothing whatever.  
 392. You proceeded with the picnic to Cabarita and returned with it in the afternoon? Yes.  
 393. Will you tell the Board, as nearly as you can remember, what took place at the floating jetty when you came in on the return journey;—where were you standing? I was standing on the port paddle-box.  
 394. You remained there until the steamer came right into the wharf? Yes.  
 395. How did she come in; did she come in quietly, or did she bump? I did not notice any bumping. She came in in the usual way—quietly.  
 396. Do you recollect how the passengers left the boat? I recollect that the portion of the steamer where I was standing was pretty low in the water,—the gangway or plank leading on to the pontoon was nearly perpendicular. It was awkward for the children to get up. A gentleman named Whittaker took one side of the gangway, and I took the other, and as the children came up we caught them by the arms and landed them on the pontoon.  
 397. That would be part of your duty? Yes.  
 398. What did the children do when they were landed on the pontoon;—did they go straight ashore, or were they mustered on the pontoon? I heard the order given—I cannot tell by whom—that the boys should remain behind while the girls got off.  
 399. You are sure that that order was given? Yes. I understand, from inquiries I made later on, that the order was given by the Rector—the Rev. Mr. Dunstan.  
 400. Did the girls go off the steamer first? Yes, they were the first to pass me. We landed them on the floating jetty, and I did not afterwards behind look to see where they went to. I had my back to the staging leading from the pontoon on to the Quay.  
 401. Did the girls get off safely? I think so.  
 402. Have you any idea of the number of girls who went across the platform? I could not say; but I should think there were between 200 and 300.  
 403. Of about what age were they? I suppose the average would be 8 or 9 years.  
 404. Can you remember whether the girls were older than the boys who subsequently passed you? Some of them were, and others were not. The order was given for the boys to stand back on the pontoon while the girls got off.  
 405. What took place when the girls passed off? I do not know whether it was after or before the girls passed off the pontoon, but I remember hearing a crash, followed by a lot of screaming.  
 406. Did you look to ascertain the cause? I rushed to the end of the floating jetty to see what was the matter.  
 407. What did you see? I saw a space between the floating jetty and the quay, with a great number of children. It appeared to me as if they were sinking in the water.  
 408. What had become of the platform? It appeared to have given way; part of it was hanging down below the pontoon and another part was hanging from the quay.  
 409. There was a complete break? Yes.  
 410. The two portions were not hanging together in the middle? No; it was completely broken.  
 411. And you saw a number of children struggling in the water? Yes.  
 412. Was there great excitement? Yes, both behind me on the pontoon and in front of me on the wharf.

413. What did you then do? I got hold of the chain which goes from the pontoon across to the Quay, and reached out as many of the children as I could. A young fellow was there beside me, and we pulled them out as fast as we could catch them. M. Agnew.  
12 Oct., 1899.
414. Did you observe any rushing or crowding on the part of the boys prior to the accident? No; I observed nothing unusual.
415. You have a fair idea of what generally takes place at these picnics? Yes; I have been attending picnics of that kind for the last twenty-six years.
416. And nothing unusual occurred, so far as crowding was concerned, on this occasion? Nothing.
417. Did you, at the time of the accident, notice any other steamer at or near the floating jetty, besides the steamer by which you arrived? I did.
418. Do you know the name of the steamer? I could not tell you her name.
419. Was she alongside the pontoon, or was she out in the cove? When the rush was over, and after we had got the children out of the water, she was alongside the pontoon.
420. Could you say definitely whether or not that steamer struck the pontoon? I could not say.
421. While you were standing on the pontoon, handing the passengers ashore from the steamer, you did not feel any shock, such as would be likely to occur had the steamer struck the pontoon? I did not. Any steamer coming in would be likely to create a wash leading to some movement of the pontoon; but I did not pay particular attention to it. It was very nearly dark at the time.
422. You remained there until all the children were taken out of the water? Yes. One child who was taken out was insensible. We succeeded in restoring animation, and he was sent to the hospital, where he afterwards expired.
423. How many boys do you think were mustered on the pontoon prior to their starting to walk up the platform on to the Quay? I could not give you an estimate; but I know there were a good many.
424. How many boys were on the platform when it broke? I could not state positively; but it seemed to be pretty well loaded with people.
425. I am referring now to the platform leading from the pontoon to the Quay? I could not speak as to that, because my back was turned to it.
426. How many children did you pull out? I and the young fellow who was beside me pulled out nine.
427. Were the children clinging together? There were two girls who were clinging together; they seemed to be 16 or 17 years of age. We could not get them out until we obtained assistance. They were standing on the platform, I was told, when it fell in.
428. Could you tell the Board whether there were many girls of that size on the platform? No.
429. How many people over the age of 10 or 11 were standing upon the platform when it broke? I could not say, because my back was turned to it. I noticed these two girls particularly because we had to hold them up in the water until we obtained assistance to pull them out.
430. Were the names obtained of those who tumbled into the water when the accident occurred? No.
431. *Mr. McAllister.*] Did you notice where the captain of the "Waterview" was standing when the children were landing on the pontoon? I did not.
432. So far as you know, there was only one gangway from the steamer to the pontoon, and that was the one at which you and Mr. Whittaker were standing? I think there was only one; I fancy some of the boys got off the steamer from the bow without using the gangway.
433. You did not notice the captain of the "Waterview" standing at the gangway assisting to hand the children out? He might have been standing at the bottom of the gangway. I was standing on the pontoon. The upper portion of the gangway projected over the pontoon, and it was rather awkward for the children to get off it; it was almost perpendicular. As the children came up, Mr. Whittaker and I caught hold of them when they were within a few steps of the top and lifted them up.
434. You are not sure then whether the captain was or was not then at the foot of the gangway? I could not say who was there.
435. After the accident had occurred where did you take the boy Grant when you were endeavouring to restore animation? I saw Dr. Harvey. He gave instructions, and the boy was worked on the pontoon until the boy showed signs of life. We then took him down into the stoke-hole of the "Waterview," where we had to cut some of his clothing off. We then put some dry clothes on him and brought him too.
436. How were those on the pontoon, including those who did not fall into the water, and those who did fall in and who were afterwards rescued, landed? The steamer pulled out from the floating jetty and went round to another wharf.
437. Did you look after the children going home in the tram, or did they go home with their parents? They went away just as they came off the boat; some of the teachers saw the children up to the tram. I did not like to leave, thinking that more bodies might be brought out of the water. I remained behind for some time, and sent the boy Grant to the hospital under Dr. Harvey's instructions. He was sent up in the ambulance.
438. *Mr. Cargill.*] At which end of the boat was the gangway by which the children were landed on the pontoon? I think it was between the paddle-box and the Quay.

William Edward Cullam sworn and examined:—

439. *Chairman.*] You are an accountant residing, at Enmore? Yes. I am employed principally by W. E. Cullam. Langdon, Hopkins, and Langdon, and I reside at "Montrose," Enmore. 12 Oct., 1899.
440. You are a teacher at the Christ Church Sunday School at Enmore? Yes.
441. Do you recollect Saturday the 23rd September? Yes; the school had a picnic on that day to Correy's Gardens.
442. You were in charge of a part of the Sunday School on the occasion? Yes.
443. How did the children come in to the Circular Quay from Newtown? They were brought in by special tram, and they embarked on the steamer at, I think, No. 3 floating jetty.
444. What was the name of the steamer? The "Waterview."
445. Did you take any special notice of the platform by which the children reached the pontoon enabling them to get on board the steamer? When we embarked, the children marched along the full width of the platform down to the pontoon. They went down in a body, not in any regulated numbers; but they occupied the full width of the gangway. 446.



- W. E. Cullam. 446. Of about what age were the children? Their ages would range from 7 to 12 or 13; perhaps 14 would be the extreme age.
- 12 Oct., 1899. 447. Were the boys and girls intermixed? They were kept separate.
448. Did you notice anything the matter with the platform;—did it appear to you to be in a shaky condition? I did not notice anything unusual. I thought it was all right. I went up and down the gangway several times after the children had gone aboard, and I did not notice anything at all the matter with it.
449. You did not notice any unusual motion when the children were crossing the gangway? There was nothing to lead any person to suppose there was anything wrong.
450. Do you recollect whether the platform was nearly level or whether it was on the incline? The platform was more level when we went away than when we returned. The tide, I presume, was higher. I had occasion to walk up and down the platform several times before the steamer left the Quay, because I wished to see friends who were standing ashore, and I had to take tickets from them, and to see some of them on board. My recollection is that the platform was then pretty level.
451. Do you think that when the passengers were embarking there were at any time as many of them standing on the platform as were standing there at the time it broke? I do not think so.
452. The children all got away safely? Yes; we reached Correy's Gardens, spent the day there, and reached Circular Quay on the return journey at about half-past 6.
453. Will you tell the Board what, to the best of your recollection, happened after the steamer reached the Quay? The children commenced to embark. The understanding was that the girls were to leave the steamer first, and that the boys were to follow; but apparently some boys and girls got with teachers and some of their friends on to the pontoon. A goodly number were on the pontoon, and the boys began to congregate on the gangway. The girls were marching past them on one side out on to the Quay. I was in charge of a senior class of girls on the return journey, and I remained with them. I may say that I was the last off the boat with the girls. I had nine girls with me—seven of them were walking in front of me, and two of them were walking behind me. As we reached the top of the landing stage, two of the girls were still walking behind me. I remember noticing the boys to the left as we passed up. There were a good number, I should say from seventy to eighty—eighty, I think, would be the maximum number; they were standing there in charge of teachers. I may say that there was a teacher and a policeman at the steamer's gangway handing the children on to the pontoon, and a policeman and a teacher at the top of the gangway handing them on shore. The boys were pretty thickly massed on the left-hand side of the gangway. There was no disturbance of any kind; they were quite quiet, and there was no bustle or confusion. I spoke to several of the teachers as I passed out. I had reached the edge of the wharf, and put one foot out to land, when I heard a creaking noise, followed almost immediately by a crash. Directly I heard the creaking noise, I turned round and saw the staging bend. It was actually bent before the collapse took place. The creaking noise directed my attention to the gangway, and I had just time to turn round, when I saw it giving way in the middle. It broke down, and the major portion of the children who were standing on it fell into the water. The rescue work then commenced. Those who were on the pontoon nearest to the children pulled the majority of them out. I stood for a second looking for a place where I could jump into the water, but I could see none. If I had jumped at all, I should have had to jump on to the top of some of the children. I afterwards lowered myself down from the front of the wharf, and pulled out a couple of children who had fallen over. When those on the pontoon had pulled a number of the children out, there was a space for rescue work, but until then it was very difficult to know what to do, because the children were so thick in the water.
454. Have you any idea of the number of children in the water? I should say there were from seventy to eighty.
455. Did the "Waterview" come in quietly to the pontoon? Yes.
456. She did not bump the pontoon? No; she did not strike the pontoon; there was no oscillation to speak of; but naturally a steamer coming into the wharf would cause a certain amount of rocking of the pontoon.
457. Did you notice any other steamer there? Yes; the "Bald Rock" came in.
458. Had she come quite in when the accident occurred? No; there was a space between the pontoon and the "Bald Rock" at that time. Her engines were eased down, and she was drifting in just as the accident occurred. She could not have struck the pontoon, because she had not reached it.
459. You seem to be quite satisfied that she did not strike the pontoon? I am quite satisfied of that. She came up alongside the pontoon while the work of rescue was going on.
460. While the boys were on the platform, waiting for the girls to pass by, were you on the pontoon or on the vessel? I was on the top portion of the steamer.
461. And when the accident actually occurred you say you had one foot on the platform and the other on the shore? Yes.
462. Had you much difficulty in getting from the steamer up to the top of the platform? I walked up the platform past the boys who were massed there. Two of the girls in my charge were walking just behind me, and they dropped into the water when the gangway broke. I managed to get on to the shore. Momentarily, as the gangway broke, I stepped on to the quay.
463. Did you run up the gangway? No; I walked up at a slow pace.
464. You did not notice any spring in the platform even then? No, it seemed to be quite solid; there was no bend or displacement.
465. So that practically, in your opinion, there was no warning of the accident? None. There could not have been more than two seconds between the creaking I heard and the occurrence of the smash.
466. Have you, as a teacher in the Sunday school, had an opportunity to hear how many children actually fell into the water;—have their names been recorded? No statement has been made which would show the exact number.
467. Have you attended any previous picnics which have embarked or disembarked at this platform? I went to a picnic in connection with St. Stephen's Church from the same wharf.
468. Did it seem to you that the staging was perfectly safe? Yes.
469. After the accident, were the children taken home by the teachers? I sent thirty odd home, and I remained on the wharf assisting to get others landed. When they were landed on the wharf I took cabs up to the hotel, and the children were sent away in cabs from there. In fact, I looked after that portion of the arrangements.

470. *Mr. McAllister.*] You say you were in charge of nine children? Yes; nine girls. Seven were <sup>W.E. Cullam-</sup>walking in front of me and two behind.
471. Were the girls walking past the boys on the gangway in single file? No; the girls walking in <sup>12 Oct., 1899.</sup>front of me would be, say, three in front and four behind them.
472. The gangway was 10 feet wide between the rails? Yes.
473. And the boys were massed on the left-hand side going up? Yes.
474. Should you say that the girls, generally, as they marched up were three abreast? I cannot say as to that; I came with the last of the girls. I have no doubt that the number of boys mustered on the staging increased during the progress of the girls on shore. The number was increasing all the time. When I arrived at the stage there was just sufficient space left for the last of the girls to go through three or four abreast. There was enough space to enable them to walk through, comfortably, three abreast.
475. That would mean that about one-half of the gangway would be left clear? There would not be one-half left clear.
476. Do you think there would be a space of 3 feet 6 inches for the girls to go up? Yes; or 4 feet.
477. The boys massed there, then, must have occupied about two-thirds of the width of the gangway? Yes.
478. The Board wish to arrive at a reliable estimate of the weight of the children on the gangway at the time of the accident? You may take eighty as the maximum number of children on the gangway, and you would have to average the age of the children. Some of the children were 4 or 5 years old, but the majority of the boys, I suppose, would be about 10 or 12.
479. In calculating the superficial area of the gangway, we find that it would not be possible to muster more than about 100 children altogether upon it? That would be about the number, I should think.
480. If one-third of the space were kept clear during the time the girls were going up, that would leave two-thirds of the space occupied by the boys who were mustered there;—that would bring the estimate of the number of children massed there to something like fifty-five or fifty-six? Yes.
481. Were the boys closing up behind as you and the girls went up? Yes. They were aware that all the girls had passed off, and they were, therefore, closing up behind them.
482. Under those circumstances the vacant third of the space might have been filled up? Not altogether. No doubt some of the area filled up, but there could not have been time for it to fill completely.
483. Looking at the matter from that point of view, it would seem that the gangway was covered nearly to its full capacity? Very nearly, I should say. I have estimated that there were about eighty children upon it.
484. The policeman and the teacher at the top of the gangway were keeping the boys from moving ashore, and were, I suppose, keeping a certain amount of space clear until the girls had all got on to the Quay? Yes; the boys all seemed to be waiting patiently. They knew the regulations. It had been customary for them to do that for a number of years.
485. *Mr. McRitchie.*] Was it dark at the time of the accident? No; darkness was setting in. There was quite sufficient daylight to enable you to distinguish any person you knew.
486. From the point where you were standing on the steamer could you notice any deflection in the gangway while the first of the girls were passing over it? No; I do not think it would have been possible to notice it.
487. One witness has told us that he could see it? I doubt whether it would have been possible.
488. It being pretty nearly dark? Quite so.
489. You were standing on the top of the steamer looking down on to the gangway? Yes.
490. In that position you would be at a distance of about 80 feet from the platform while the girls were passing off, and you think that having regard to the approaching darkness you could not at that distance have seen any sagging or deflection in the platform? I think not.
491. You say that the boys were all very orderly? Yes.
492. And you are sure that the "Bald Rock" did not touch the pontoon at all? I am positive of that.
493. If she had bumped it you would have felt the concussion? Yes, I should have noticed it, coming off the steamer, as I did, with the last of the girls before the accident occurred. Immediately after the accident happened I was facing the "Bald Rock," and could see her coming in, so that there can be no doubt about the matter.
494. *Mr. Cargill.*] You said you were the last off the vessel with the girls;—do you mean that you were actually the last persons who left the vessel, or that you were the last teacher in charge of the girls? I was the last teacher in charge of the girls. There were some other girls and children left on board in charge of parents and friends.
495. Were all the boys belonging to the school off the boat at that time? I could not say; but apparently a good number of them were. The major portion of the school is composed of girls.
496. When did you first see the "Bald Rock" before you left the steamer? I saw her coming up the cove in the distance.
497. How far off was she? Several hundred yards off; I suppose 300 yards. I could not give you the exact distance.
498. Did you watch her particularly? No.
499. Can you tell the Board where she was when you left the "Waterview"? No. As I came down on to the pontoon my back would be turned to her. It was not until I went up the gangway that I saw her again. She was then a short distance off the wharf.
500. Which gangway are you speaking of now? The one that broke.
501. You are sure you did not see the "Bald Rock" as you crossed the gangway of the "Waterview"? No; I could not do so.
502. Why? Because my back was turned to her. I came down the paddle-box.
503. You did not cross the "Waterview's" gangway at all? No.
504. You say you saw the "Bald Rock" again as you went up the gangway which broke? Yes.
505. Did you turn round? Yes, I turned round and looked casually at the vessel.
506. How far up the gangway were you then? I was within 6 feet of the top.
507. The "Bald Rock" was then in what position? I should say from 70 to 80 feet from the pontoon.
508. I suppose you did not stop? No.
509. You turned round again almost immediately as you got to the top when you heard the creaking? Yes.

- W.E. Cullam  
12 Oct., 1899.
510. At the moment the clash occurred, how far off did the "Bald Rock" appear to be? I could not say.  
511. Just at the time of the crash you cannot say where she was? No.  
512. And, after the collapse of the gangway, where was she? About 10 feet from the pontoon.  
513. Immediately after the collapse? Immediately afterwards.  
514. Ten feet from the side of the pontoon, or 10 feet from the end? Ten feet from the side.  
515. So that, between the time you turned round when you were on your way up the gangway and immediately after the accident, the "Bald Rock" had come up 70 or 80 feet? Yes.  
516. You informed the Chairman that there was a teacher and a policeman at the top of the gangway from the ship, and a teacher and a policeman at the top of the gangway that broke, helping the children ashore? Yes; they were on the gangway which broke; I spoke to them.  
517. Was there only one teacher? There were several teachers among the crowd of boys. I cannot say how many. There were three or four, if not five. I spoke to two of them.  
518. Were there other adults with the teachers? No.  
519. *Mr. McAllister.*] Did those teachers fall in with the children? Yes; they were standing in charge of their classes on the gangway, and went down with them.  
520. *Mr. Cargill.*] By whose orders did the boys remain on the gangway? I am not in a position to say; but the intimation was conveyed to me by another teacher that the boys were to remain, and that the girls were to go off first.  
521. But, so far as you know, was there any physical obstruction preventing the boys leaving the gangway? No; none.  
522. So that their remaining there was probably due to an order to that effect? Yes.

Alexander McMaster sworn and examined:—

- A. McMaster.  
12 Oct., 1899.
523. *Chairman.*] You are a constable in the Water Police? Yes.  
524. You recollect the 23rd September, and the occurrence of the accident to the floating jetty at Circular Quay? Yes.  
525. Were you on duty on that occasion? Yes, on the Quay.  
526. Where were you when the accident took place? I was standing on the sponson of the "Waterview," the boat conveying the picnic party.  
527. How did you come to be on the sponson of the "Waterview"? The children were all trying to get ashore, and were rushing the gangway before it was placed in proper position.  
528. Were you on the Quay previous to going on board the "Waterview"? Yes; I was on duty on the Quay. I knew that the picnic boat was coming in, and I was waiting for it.  
529. You passed down the platform on to the pontoon, and went on board the "Waterview"? Yes; some of the boys were attempting to jump from the sponson on to the pontoon, instead of going up the gangway. I was endeavouring to prevent them from doing so, because the sponson was considerably under the level of the pontoon.  
530. Did you take any notice of what the passengers did when they landed;—did they congregate on the front of the pontoon, or did they pass straight away on shore? Some of those who had small children with them remained on the pontoon. I heard one of the teachers calling out to the girls to muster on the Quay, and that the boys were to remain behind the girls on the pontoon.  
531. Do you know whether that order was carried out? I saw the girls marching up the gangway, but I was not aware at the time that they were mustering the boys on the gangway. I thought they were marching on.  
532. Did they muster the boys on the gangway? Apparently, from what occurred afterwards.  
533. The boys may have been mustered on the pontoon and marched part of the way up the gangway? They were stationary on the gangway, and a passage was left for the girls to march up past them.  
534. How did you first become aware that an accident had happened? I had my back towards the stage at the time the accident occurred. I heard a crash, and saw all the children falling in a heap into the water.  
535. When you heard the crash, you looked round? Yes; and I saw that the gangway had collapsed.  
536. Was that immediately after you had heard the crash? Yes.  
537. Did the gangway part entirely in the centre? It appeared to go down all at once.  
538. What did you do then? I jumped off on to the pontoon, ran along, and got off on to the chain leading from the pontoon to the Quay. I got hold of the chain, and managed to get one of my feet on to a portion of the broken platform. In that position I could reach a considerable number of children. I passed them up as quickly as I could get any one to take them from me.  
539. Have you any idea how many children were in the steamer? I should think about eighty.  
540. Did you take any notice of the size of them? There was a considerable number of very small boys. I should think the average age would be about 8. I know that boys as old as 14 were there. I know one of them personally.  
541. Were there any grown-up persons? I saw one girl, I think, about 15 or 16.  
542. Were you on duty at the Quay when the picnic party went away in the morning? No.  
543. You have been on duty at the Quay on previous occasions when there have been picnics, and when a number of persons have embarked or disembarked at the floating jetty? Yes.  
544. Have you ever noticed anything wrong with the platform? No; I never knew that there was anything wrong with it.  
545. Had you any idea that it was weak? No; I was always under the impression that the girders were of hardwood.  
546. So that you were very much surprised when it gave way? Yes; in fact, I could not understand for a few seconds what had happened.  
547. Have you seen any very heavy weights upon the platform? Yes; I have seen drays going over it. I have seen loads of produce going down to the Quarantine Station.  
548. How long prior to the accident? I noticed it last summer. I noticed a number of people on the gangway, too, when the Lancer contingent went away. There were then as many people upon the gangway as it could possibly hold.  
549. Had you noticed anything wrong with the platform, would it have been part of your duty to report it? I should certainly have reported it whether it was my duty or not; but it would have been my duty to report it had I seen anything wrong with it.

A. McMaster.  
12 Oct., 1899.

550. To whom would you have reported it first of all? To Inspector Hyem.
551. Did you notice in what way the "Waterview" came into the wharf on the evening of the 23rd? She came in very easily.
552. She did not bump against the pontoon? No.
553. Did you notice any other steamer at the pontoon? The "Bald Rock" came in just prior to the collapse of the gangway.
554. Was she alongside when the gangway collapsed? She was just about abreast of the corner of the pontoon. I looked at her purposely, to see if there were many people on board. I wished to ascertain whether it was necessary for me to go over to them, as the passengers on the "Waterview" were nearly all out; but I noticed that there were only a few persons on the "Bald Rock," and, therefore, I did not go over to them.
555. Were you in a position to say definitely whether or not the "Bald Rock" knocked against the pontoon? So far as I am aware, she did not knock against the pontoon. I should have felt it if she had hit it with any force at all. She could scarcely come in without touching it, because there is so little room. The "Argus," the police launch, was lying on the other side, so that there was very little room to spare.
556. Do you know if the "Bald Rock" was fastened to the pontoon immediately prior to the accident? She might have had her lines out; but she was not squared up in a proper position; she was abreast of the pontoon; but I could not say whether she was alongside.
557. You are satisfied that she did not bump against the pontoon? Yes.
558. Were you one of the constables who took charge of the timber of the staging after it had broken? I took charge of the piece which was sawn off on the day of the inquest.
559. *Mr. McAllister.*] You spoke just now of drays passing over the gangway;—do you know how long ago that occurred? I think it was last summer.
560. You saw a dray pass over the gangway on more than one occasion? Yes.
561. What description of dray was it? An ordinary dray.
562. A two-wheeled spring van, I suppose? Yes.
563. With what description of produce was the dray loaded? With bales of hay.
564. How many bales would the dray hold? I do not think it would hold more than two bales.
565. Was it compressed hay, with bands round it? Yes.
566. Then there would be altogether, including the van and horse, about 1 ton weight? Yes.
567. Was the driver leading the horse slowly down on to the pontoon? Yes.
568. Was there any objection made by any person in charge—by yourself, for instance—to the horse going down on to the gangway? No. We have no control over the wharfs; we have nothing to do with them.
569. Suppose it was attempted to take a horse and cart down the gangway at Prince's Stairs, whose duty would it be to stop it;—would it be the duty of the Water Police? At a place like that it would certainly be our duty. The floating jetty was used chiefly in connection with wool.
570. How long is it since you saw any wool going over that jotty? I have not seen any this season.
571. Was the wool rolled down in bales or trucked down? Sometimes it was trucked down, and sometimes rolled down. If the platform were very steep it would be rolled down.
572. And, I suppose, it was loaded into barges alongside the pontoon? Yes.
573. Was the wool sent down one bale at a time, as a rule? Yes; it was trucked chiefly from Talbot and Flood's stores.
574. Then it would come round by dray, I suppose? No; it was trucked from the stores in single trucks, one bale at a time.
575. How long after the accident were the floating lights thrown from the stern of the Japanese steamer? The children were all out of the water then with the exception of the two who were underneath. We were very much hampered from the want of light previous to the appearance of the floating lights.
576. You could not see from your position on the sponson of the "Waterview" whether the gangway of the pontoon was unduly crowded or not? No. I was not aware that they were mustering the boys there until I heard the crash, and saw the boys going down with the gangway.
577. Were you on the Quay when the Lancers embarked? I was on the other jetty at that time in charge of the police launch.
578. But you could see the Lancers going down on the pontoon? Yes.
579. Do you recollect whether they walked down in step or whether they fell out of step and walked down as an ordinary crowd of citizens? They marched down in regular order; but a crowd of people got on to the platform after they were down.
580. Was no one about to prevent the public from crowding up the Lancers and hampering their movements? Yes; several police were there to keep the public back.
581. So that the Lancers and their friends might occupy the pontoon and the stage? Yes.
582. But you think that upon that occasion the pontoon and the stage had as many men upon them as they could hold? I am positive of it.
583. *Chairman.*] Do you know of any picnic parties having refused to embark from this particular pontoon? No, I do not.
584. You never heard from anyone that they did not consider it safe to pass over the platform? No; I never heard of it. At one time it was the only place from which picnic parties could go.
585. Up to the time of the accident, in your opinion, the platform was perfectly safe? Yes; I always understood so.
586. *Mr. McRitchie.*] Do you recollect the time of the wool riots at Circular Quay? Yes.
587. You recollect that the mounted troopers charged the crowd of people there, and that hundreds of people went on to the pontoon, and that one of the troopers' horses went down also? I could not say; I was in charge of the launch at that time. I heard that such a thing did occur.
588. If there was anything wrong with the staging then it would have shown signs of it, because it was packed as closely as it could be packed? Yes.

O. T. B.  
Miller.

12 Oct., 1899.

Oscar Thomas Broughton Miller sworn and examined:—

589. *Chairman.*] You are a police constable stationed at Newtown? Yes.
590. You remember the 23rd September last? Yes.
591. You were on special duty on that day? I was on duty with the Christ Church picnic to Cabarita.
592. Did you accompany the children from Newtown to Cabarita? Yes.
593. Were you present when they went on board the steamer "Waterview" at Circular Quay? I was.
594. Did you take any particular notice of the manner in which they went on board the steamer? No; they all went on board very quietly and steadily.
595. In an orderly way? Yes; they were a considerable time getting on board. The boat must have been lying there for about an hour.
596. How many passengers were taken by the steamer on the trip by which you went? About 550.
597. How long do you say the steamer lay alongside the floating jetty to take passengers on board? She was lying there fully an hour after I got there.
598. And there was no rush at all? No.
599. You returned with the picnic party from Cabarita in the evening? Yes.
600. Were you on the steamer just prior to the accident? Yes.
601. Where were you standing when she came into the floating jetty? I was standing on the top of one of the paddle-boxes.
602. Did you notice how she came in? She came in very quietly.
603. She did not bump the pontoon? No; she came in as steamers generally do.
604. What did you do when the steamer got alongside? I sprang off the paddle-box on to the floating jetty. I was the first person to leave the steamer. I went on to the gangway connecting the floating jetty with the quay, and stood there to see that no children fell off into the water while they were landing. I remained standing on the platform.
605. What part of the platform? About 10 feet from the Quay and 14 feet from the jetty. That would be about midway.
606. That was immediately after the steamer arrived? Yes.
607. Did you notice how the children went on shore from the pontoon? I did. Mr. Dunstan, the rector, came first, and he said to me, as I stood on the gangway, "Keep the boys back as much as possible, and allow the girls to land first." We did so. Assisted by a teacher, I asked the boys to remain on the boat as much as possible, and allow the girls to land first.
608. That is usually done at these picnics? Yes. About 200 girls went ashore. Mr. Dunstan then said, "I will take the girls up to the tram; you men had better wait and bring the boys up behind." He then left with about 200 girls.
609. Where were you standing then? I was still standing in the centre of the platform.
610. Did the boys congregate at the bottom of it. Yes. A number of boys were eager to get away. They got up on to the platform and kept encroaching on it.
611. What followed? As the boys came on to the [platform there was a space kept free on the right-hand side for any of the stragglers among the girls to follow on after Mr. Dunstan. The girls had all got off, when one of the teachers said, "Now we will follow." I was in the act of moving, and had my back turned to the quay, and was facing the floating jetty, when, without any warning, I heard a crash. The platform gradually subsided. It did not break immediately, but it went slowly down towards the water, and then parted.
612. Did you go down with it? Yes; I went right down into the water. I suppose not more than a second and a half elapsed before the platform struck the water. I had no time to get off. There would then have been from sixty to eighty children on the platform, and my impression is that there were about eighty. They were all precipitated into the water.
613. What did you do when you found yourself in the water? A number of children clung to me; but I should say that about twenty or thirty children saved themselves without any assistance by clinging to the broken portions of the gangway. One of these portions hung down into the water from the Quay, and the remaining portion was suspended from the pontoon. As I fell into the water some of the children fell on top of me. I went underneath, and when I rose a number of them were clinging to me. I was then about 10 feet from a portion of the gangway hanging in the water.
614. Was it deep water? The water appeared to be about 10 feet deep; that would be about the depth. I dived down almost immediately afterwards.
615. You had to swim to keep yourself afloat? Yes; I had to swim to the gangway with some of the children clinging to me. I seized hold of a plank by one hand, and began to hand the children out with the other hand. The children were all round me in the water, and I passed them out to people on the Quay, who reached down and took them up.
616. How long were you in the water? I should say I was there about fifteen minutes before we got the last of the children up. I was the last man to leave the water. I took the body of the boy Grant from the water. He was the last child recovered.
617. Before the collapse of the gangway, you had no warning of any description? I had no knowledge of anything being wrong. I heard a crash, and on the instant the platform seemed to go down.
618. Did you notice any other steamer coming in? I noticed another steamer coming in on the west side of the pontoon.
619. Did she come right alongside the pontoon? No; she was nothing less than 10 feet from the pontoon at the time we were thrown into the water. I saw the people on board of her trying to spring on to the pontoon to come to our assistance; but they could not do so, because she was not alongside.
620. You have been to picnics of this sort on previous occasions? I have been to several.
621. Was this particular picnic party conducted in an orderly manner? It was one of the most orderly picnic parties I have ever seen.
622. There was no undue crowding or crushing? None at all. The children were well under the control of their teachers, and were very well disciplined, indeed.
623. Did the staging open out as it went down towards the water? Yes.
624. Then the children were all afloat? Yes.
625. The chain underneath the staging did not prevent the fractured portions from opening out altogether? No; about thirty children saved themselves immediately after the accident, and reduced the work of rescue

rescue considerably. There was a space between each board in the planking of the platform of about 1½ inch, and the children got their fingers between these spaces and climbed up as they would climb up a ladder. The average age of the children, I should say, would be between 11 and 12. Some of them mounted by the portion of the staging hanging on to the pontoon, and others climbed up the portion hinged on to the Quay.

O. T. B.  
Miller.  
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626. Does the illustration published in the *Evening News* fairly represent what occurred? It is a very fair representation of what occurred. The handrail of the portion of the staging hanging upon the Circular Quay disappeared in the water; but the handrail of the remaining portion of the staging remained intact.

627. *Mr. McAllister.*] When you first took up your station on the gangway you were 10 feet from the edge of the wharf? Yes.

628. Did the boys encroach at all upon that space, crowding you on to the wharf? No; I myself did not move.

629. At no time until the accident occurred was the portion of the gangway between you and the Quay filled with children? No; but some of the adults from the picnic were there with children, and the girls were also going ashore. There may have been a few in the space between myself and the Quay at the time of the accident. I know there were some; but I cannot tell you how many.

630. The space was not unduly crowded? No; there would be only a few persons there.

631. At about the time the crash occurred, did you notice whether the portion left vacant for the girls had been occupied by the boys crowding up from the rear? Portion of it may have been.

632. At the time the order was given by the teacher for the boys to move along, did they come with any kind of rush from the pontoon? No.

633. They moved along in an orderly and slow way? Yes; there were teachers interspersed among them, every few feet. Each teacher had his class.

634. Then the gangway in your estimation would not have been more than two-thirds filled at the time of the accident? No.

635. The only adults upon it at the time were the teachers and yourself? Yes; and there were two girls about 17 years of age who were nearly drowned. I suppose there were not more than four or five teachers on the gangway when it broke.

636. *Chairman.*] You say you have been to other picnics of this kind leaving this floating jetty? Yes.

637. Have there been a greater number of children at those picnics than were present on this occasion? Yes; three times as many; the picnic from St. Joseph's Roman Catholic Church at Newtown is a very heavy picnic.

638. Did the persons attending that picnic go over this particular floating jetty? Yes.

639. How long ago would that be? About last October.

640. *Mr. McAllister.*] Were you, on the occasion of any of these heavy picnics, on duty during the landing of the children? No; I was at St. Joseph's picnic simply as a visitor.

641. In getting ashore you came up the gangway in the usual way;—did you notice whether it was very much crowded? It was crowded with adults; we were pushing one-another very much.

642. Your impression on that occasion was that the gangway was loaded to its full capacity? Yes; that would be twelve months ago.

643. The crowd would be as dense as a crowd at a fire, for example? It was quite as densely crowded as it was when the boys were mustered on it on the occasion of this particular picnic.

644. Did you notice the gangway move at all? I remember that it swayed as we walked off last year. I distinctly remember that, because I was wondering at there being so many of us on it. Still, I did not anticipate any danger. That would be just twelve months ago—October, 1898.

645. Was the picnic entirely an adult's picnic? Not entirely so; but the boat by which I came back was entirely an adult boat. The picnic is generally so heavy that the boat has to make several trips.

646. It is safe to say that on that particular occasion there were only adults on the gangway? Yes.

647. *Chairman.*] You have never at any time heard any one say that the gangway was unsafe? No; the only thing I ever heard was some one saying that it was peculiar that there was no handrail put round the pontoon. I have never heard anything said about the gangway.

648. On the night of the 23rd did you hear any one warning any of the passengers? No.

MONDAY, 16 OCTOBER, 1899.

Present:—

C. McALLISTER, Esq. | W. McRITCHIE, Esq.  
GEORGE McCREDIE, Esq., CHAIRMAN.

J. S. Cargill, Esq., Crown Law Department, was also present.

Frederick Gerdes sworn and examined:—

649. *Chairman.*] You are a fireman in the employ of the Balmain Steam Ferry Company? Yes.

650. You recollect the 23rd September last? Yes; the date of the accident at Circular Quay.

651. You were employed on that date on board the steamer "Baldrock"? Yes.

652. Will you tell the Board your recollection of what occurred at the time of the accident? I was standing at the forward gangway when the boat came in to the floating jetty. The line was over the bollard on the pontoon, and I was in the act of making it fast when I heard a crash. I at once dropped the line, jumped on to the pontoon, and into the water.

653. Did you notice the occurrence of the accident? I noticed that the gangway from the pontoon to the Quay gave way.

654. Did you see it break? I did not actually see it break, but I noticed it just as it touched the water. I heard the screaming.

655. As soon as you saw the children in the water you jumped in? Yes.

656. Do you recollect whether the steamer "Baldrock," when she came in to the wharf, had much way on her? Very little way.

657. Before you jumped overboard she was not fastened to the jetty? No.

658. You were about to fasten the line, you say, when the accident occurred? Yes.

659.

F. Gerdes.  
16 Oct., 1899.

- F. Gerdes.  
16 Oct., 1899.
659. Had the steamer touched the pontoon? No.  
660. About how far from the pontoon was she? I should say from 5 to 6 feet.  
661. You are quite sure that she was not fastened to the jetty? Quite sure.  
662. Do you remember how long before you jumped ashore the steamer's engines had been stopped? Previous to her going astern they must have been stopped about two minutes.  
663. When did she go astern? Just as we came to the pontoon.  
664. Just before the accident happened? Yes.  
665. Did you notice how many children were on the platform when it broke? I did not.  
666. When you jumped into the water did you swim to the broken platform? I dived, and I came up among the children.  
667. What did you do then? I caught hold of one child, and swam to the pontoon with him.  
668. Did you remain in the water any length of time? About six or seven minutes.  
669. Did you notice whether the broken platform hung together in the middle, or whether it was completely apart? It was completely apart.  
670. Were the children struggling in the water? Most of them were struggling in the water; others were clinging to the broken parts of the platform.  
671. How many children did you rescue? I could not say; I was too busy to count them.  
672. I suppose you handed them out as quickly as you could get hold of them? I put them on lifebuoys, and pushed them to the pontoon.  
673. Do you remember the captain of the "Baldrock" throwing lifebuoys into the water? Yes; one struck me on the back of the head.  
674. I suppose that lifebuoy was of some service in the work of rescue? Yes.  
675. There was not much light at the time? It was just getting dark; we could not see very plainly.  
676. *Mr. McAllister.*] You said that you might be 5 or 6 feet from the jetty when you jumped on to it? Yes.  
677. Had you any difficulty in jumping the distance? No difficulty whatever.  
678. You are fairly certain about the distance? Yes.  
679. Did you jump into the water from the pontoon on the side next to the Circular Quay? Yes; I ran along the pontoon and jumped into the water at the circular end of it—at the side at which our steamer came in.  
680. When you were running along the pontoon did you notice many children there? I took no notice at all.  
681. The only children you noticed were those in the water? Yes.  
682. Your steamer went astern as her bow got abreast of the end of the pontoon, is that so? Yes.  
683. You did not notice any wash from your steamer disturbing the pontoon? No; it was perfectly steady.  
684. Where was the captain of the "Baldrock" standing when he threw the lifebuoy? When I came up from under the water I heard him giving orders to the people to get back from the iron, and then I was struck by a lifebuoy.  
685. He must have been standing at the forward end of his steamer, throwing the buoys from the hurricane deck? Yes.  
686. You are perfectly certain that your steamer did not touch the pontoon, and that her wash did not disturb it? I am quite certain of that.  
687. *Mr. Cargill.*] You had the line over the bollard, you say? Yes.  
688. How long was that before the crash occurred? A very short space of time—I should think about a minute.  
689. After you got the rope over the bollard right at the end of the pontoon, did you take a turn round with the rope on your boat? No.  
690. You simply had the line in your hand? Yes.  
691. What were you waiting for that you did not take a turn with the line? I was waiting for the boat to come closer in.  
692. She was still going slowly ahead then? I could not say; but at any rate she could not have had very much way on her—scarcely any way at all.  
693. Were there any other lines out from your boat? I did not notice any.  
694. You had the forward line? Yes.  
695. Any other line would be at the after end of the boat, and the paddle-box would be between you and the man with that line? Yes.  
696. Have you any idea how far along the pontoon you had to run before you dived? About 30 feet.

Francis Kirkpatrick sworn and examined:—

- F. Kirkpatrick.  
16 Oct., 1899.
697. *Chairman.*] You are under Secretary for Finance and Trade? Yes.  
698. The Board would like to know the practice adopted by your Department with reference to the taking over of wharfs from the constructing authority, and also with reference to repairs;—I presume your Department has nothing whatever to do with the construction of wharfs? Nothing whatever.  
699. Your Department controls the financial part of the business;—you collect the dues? Yes, and make the best arrangements possible with regard to the wharfs.  
700. I presume that work is entrusted to an officer of your Department? Yes; Captain Jackson is the manager of the wharfs.  
701. What is the usual practice when wharfs are taken over; for example, is any step taken by your Department to ascertain the condition of the wharfs at the time;—you might refer particularly to the floating jetty, at which the accident recently occurred at the Circular Quay? I am not in a position to give you any information as to that particular jetty; I cannot discover that any papers were sent over to us when it was finished. The usual course is for the Public Works Department to inform us that a particular wharf is completed, and we then hand it over to Captain Jackson. I have the original minute with reference to Captain Jackson's appointment; it is in these terms:—"Treasury, 27 October, 1884. The office of Manager and Collector of the Circular Quay having become vacant by reason of the retirement upon allowance of a month's pay for each year's service of Mr. John Bell, the Colonial Treasurer recommends the appointment of Captain John Jackson to fill the vacancy; such appointment to date from the 1st

1st proximo. Salary—£425 per annum, as voted. George R. Dibbs." That is the minute paper for the Executive Council. The Treasury minute is as follows:—"Appointment of Captain John Jackson as Manager of the Circular Quay, 24th October, 1884. Mr. John Bell having been granted leave to retire from the above office from the 31st instant, thereby creating a vacancy, I appoint Captain John Jackson to be his successor from the 1st proximo, at the voted salary of £425.—G.R.D." There are also papers pointing out that Captain Jackson is a deserving man and a careful officer, and I have certainly found him to be so.

F.  
Kirkpatrick.  
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702. Have you any papers defining the duties of the Manager of wharfs? His duties are not defined. He represents the Treasury.

703. When wharfs are handed over to your Department by the Public Works Department, do you receive a certificate from any officer of that Department showing in what condition the wharves are? No.

704. Suppose, for example, a wharf were handed over to your Department in a dangerous condition, what would be the practice of your Department;—would you report it to the Public Works Department? They would not hand over to us any wharf in a dangerous condition.

705. Suppose a wharf got out of repair, and became in a dangerous condition? Undoubtedly if Captain Jackson noticed that any repairs were required he would report the fact.

706. But it would not be his special duty to inspect, with a view to reporting the necessity for repairs? No; but as a man of common sense he would report the need of repair at once, either to the Treasury or to the Public Works Department.

707. You do not know of any officer in your Department whose duty it would be to examine the wharfs? No. I understand that that work is carried out by the Harbours and Rivers Department, but I could not say under what officer.

708. Have you any knowledge of an inspection of the pontoon and staging where the accident occurred? No; but I have some other papers bearing upon the question of control of wharfs which may throw some light on the subject. I find that on the 31st May, 1898, a great quantity of coal had been stored on the Norddeutscher Lloyd's wharf. The fact was brought under the notice of the Treasury, and we had the coal removed. Mr. Burrows, resident engineer, wrote as follows to Mr. Grimshaw:—"I have to call attention to the fact that the Norddeutscher Lloyd Company have stored on their leased wharf at the northern end of the cargo-shed some 700 tons of coal. I understand this coal has been stored in anticipation of the cessation of work at the collieries; but this wharf is in such a state of tension (on the land ties) that the weight of this coal on the back of the wharf may add considerably to the risk of its possible displacement." Upon that Mr. Grimshaw wrote:—"The coal is piled up against the side of the cargo-shed, which is very undesirable." Mr. Darley wrote:—"Captain Jackson's attention should, I suggest, be immediately drawn to this action of the Company." The papers came on to me, and I referred them to Captain Jackson. The upshot was that the coal was removed. That will illustrate to you the official routine in these matters.

709. *Mr. McRitchie.*] In the Blue Book of 1892, the name of an officer (Mr. Lovelock) appears as overseer of stage;—his name does not afterwards appear, and the Board would like to know whether he was superseded by Captain Jackson or by the Public Service Board? I could not give you that information; but I should say from the way the name appears in the Blue Book that he must have been the overseer of some particular stage.

710. He would not be the overseer of the whole of the stages? I could not say that; it is a good while ago. I do not consider that the manager of public wharfs at any time has officers under him who are capable of finding out defects of stages. His officers would not be likely to discover such defects unless they were very apparent.

711. You think that is more the work of the Construction Department? Yes; or of a supervising engineer.

712. *Chairman.*] Do you think it is necessary to have an officer of that description in charge of platforms and stages? Not attached to the Treasury. Such an officer might be a good or a bad one, and we should not know. I have a paper bearing upon that question. It is a minute written since the accident took place by the Under Secretary for Public Works, and it shows the relations of the Departments to the wharfs very clearly. The minute is dated 27th September, 1899:—"Construction of wharfs, jetties, &c.—The evidence taken before the Coroner in connection with the sad accident that occurred at the floating jetty last Saturday evening discloses a very unsatisfactory state of affairs as regards the inspection of the Government wharfs, jetties, and landing stages. This Department is charged with the erection of these structures, and upon completion they are handed over to the care of Captain Jackson, the Government wharfinger. In his evidence, Captain Jackson stated that the wharf in question was in his charge only for the purpose of collecting revenue. He had nothing whatever to do with the inspection of the wharfs, but if he saw that any repairs were necessary he always reported them. These landing stages have in holiday times to carry a very heavy traffic, and it appears to me that some proper system of inspection should be adopted whereby the safety of the public should, as far as practicable, be assured. Although the wharfs, &c., are handed over to Captain Jackson, he has not the professional skill, nor have the staff at his disposal, to say if the structures are safe, or whether certain repairs are required. I am of opinion that that is a responsibility which should rest with this Department, and, with a view of meeting the case, I recommend that one of the Harbours and Rivers inspectors be specially appointed to make periodical inspection of these structures, and report the result to this Department. I would suggest, as a further precaution, that a notice be posted up by Captain Jackson limiting the number of people using these landing stages." That recommendation was approved by the Secretary for Public Works on the 27th September, and was noted by Mr. Darley, and sent on to the Treasury. Upon that minute Captain Jackson wrote:—"4 October, 1899. Sir, I have the honor to acknowledge receipt of your letter of the 2nd instant, enclosing copy of minute approved by the Hon. the Minister for Public Works, in reference to the safety of public jetties, &c. With regard to the instructions to erect notices limiting the number of persons to be allowed on jetties, &c., at one time, I presume that these apply not only to jetties used by the public for picnics, but also to the leased jetties, &c., and as the leases contain a condition that these shall be kept in repair by the Government, they will also require to be regularly inspected. I would ask that I be furnished with a statement by the Works Department stating how many persons can be allowed on the Government jetties and pontoons at Circular Quay and Erskine-street at one time, and as regards the inspection of the same, I beg to suggest that such inspection be made every quarter, in the months of January, April, July, and October, and that I be furnished with certificates as to the safety



F.  
Kirkpatrick.  
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safety of the various structures. I note that it will be my duty to report to the Treasury any failure in regard to the inspection of the landing stages. I have the honor to be, sir, your obedient servant, John Jackson, Collector and Manager." I may say that I had written upon Mr. Hickson's minute, the following:—"Captain Jackson might be so informed and instructed to see that the inspections are periodically made. Any failure to be at once reported." That was approved by Mr. Sec, who was at that time acting for Mr. Lyne.

713. Has an inspector been appointed? I could not say.

714. *Mr. McRitchie.*] This particular pontoon is 61 feet long by 30 feet wide, and allowing 4 feet of room for each adult, it would accommodate 457 persons; but an inspector would have considerable difficulty in ascertaining whether that number were or were not on the pontoon? You are speaking of the pontoon, I was referring to the stages. Captain Jackson, I presume, would see that the number mentioned for the stages was not exceeded.

715. *Chairman.*] One of the witnesses, Hansen, in giving evidence stated that he had reported that this particular platform at Circular Quay was unsafe two years ago, and also twelve months ago; he appears to have reported on two different occasions;—has it ever come to your knowledge that a report of that character was made? No, I never heard it.

716. I suppose a report of that character would reach you through Captain Jackson? It would depend upon the person making the report.

717. Supposing the report were made by one of the watchmen? In that case I might know nothing of the matter. Captain Jackson would probably take action himself without reference to me. No report was ever made to me.

718. To your knowledge has any report been made to your Department at any time that this particular stage was unsafe? I do not remember any.

719. Do you remember the circumstances connected with the handing over of the stage or pontoon to your Department? No; I could not tell in what year it was. I have not been able to trace any papers at all dealing with the question. It would be handed over probably before I took office as Under Secretary in 1891. I do not remember it being handed over since that date.

720. *Mr. McAllister.*] Mr. Bell preceded Captain Jackson;—is there any minute or instruction defining his duties? If any were issued it would be before my time. I could not tell you whether there were any instructions unless I looked up the appointment of Captain Bell.

721. We may presume, I conclude, that Captain Jackson's duties were precisely similar to those of his predecessor? Undoubtedly.

722. Would he be furnished by any Department with particulars, or would he have to discover himself the absolute range of his duties? I do not think Captain Jackson was ever furnished with any particulars as to his duties; I do not think they were ever defined.

723. He would gather in a general way from you, I presume, what his duties were? He was appointed before I became Under Secretary.

724. Captain Jackson is a retired shipmaster? I believe so.

725. Has he any technical knowledge beyond that which a shipmaster would pick up in a general way as to the integrity of timber and the stability of wharfs and structures of that kind? Captain Jackson is a very careful man, but I do not know that he possesses any technical knowledge of the kind you mention.

726. So far as you are aware, he gains his information as to the state of the wharfs casually from watchmen and others? No; I think by going round. He is always on the wharfs.

727. His duties compel him to be about the wharfs? Yes; he manages the whole wharf business. He recommends the leases of certain wharfs, and looks after the collection of revenues, the placing of ships, and attends to wharf matters generally. He supervises the whole business.

728. Suppose Captain Jackson had as an assistant a practical shipwright, whose duties it would be to look after repairs, and so forth, connected with the wharfs and sheds, would not that meet the requirements of the case? I think it would be better for such an officer to be connected with the Public Works Department, where there would be a supervising engineer. If a man were appointed under the Treasury he might not do that which was right; he would require to be supervised, and Captain Jackson, I take it, would not have the necessary technical skill to supervise such work.

729. Suppose a thoroughly reliable technical man were appointed whose integrity and qualifications were entirely above suspicion, whose previous record showed him to be a man of skill and experience, and suppose he were made responsible, would not such a man do the work as well as if he were looked after? I think not. The Treasury is a revenue-collecting department. We have not any engineers in connection with it. The Public Works Department, on the other hand, have engineers. It is an advantage to have a supervising engineer, and the Public Works Department would have other engineers going about who might notice things. The Treasury could not undertake work of that kind. They could not be in any way responsible for the work of the officer appointed to supervise.

730. *Chairman.*] You think the Public Works Department should not cease to be responsible for the stability of such structures as wharfs? No; the responsibility should undoubtedly remain with them.

731. *Mr. McAlister.*] It should not be difficult to hand over the responsibility for the stability of these structures to an existing officer skilled in that sort of work? No; the Public Works Department have themselves recommended that course.

Robert Rowan Purdon Hickson sworn and examined:—

R. R. P.  
Hickson.

732. *Chairman.*] You are Under Secretary for Public Works and Commissioner for Roads? Yes.

733. Your Department is charged with the construction of wharfs and jetties? Yes, Government wharfs.

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734. Will you inform the Board of the practice which obtains in regard to the control of the wharfs when the construction is completed? When a wharf is completed by the Public Works Department, it is handed over to the Treasury, and they are then responsible for its working. If any repairs are required they generally inform us, and we carry them out. They have no skilled men in that Department fit for such work. The repairing of wharfs, as was proved by the evidence taken at the Coroner's inquest, is in a most unsatisfactory state. I wrote a minute, drawing the attention of my Minister to the fact, and he forwarded the minute to the Prime Minister, who approved of the recommendation. The

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of it was that although we would still hand over the wharfs to the Treasury, as far as the working was concerned, we would have an officer appointed whose duty it would be to make a particular examination of the wharfs, and to report to us whatever may be required in the shape of repairs or alterations.

R. R. P.  
Hickson.

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735. Do you recollect when this particular floating jetty at Circular Quay was constructed? No, I do not. Although I was in the Public Works Department at that time, I was Commissioner of Roads, and the matter did not come under my supervision in any way.

736. Supposing that at any time within the past two years a report had been made as to the unsafe condition of the platform, would it have come under your notice? Yes, anything of that kind, since 1896.

737. But you have not seen any such report? I do not recollect it, and, as a matter of fact, I do not think there has been one.

738. Such a report would come directly from Captain Jackson to your Department? It would go through the Treasury.

739. So that Mr. Kirkpatrick would be likely to know if there had been such a report? Yes, the records would also show it; but I have no recollection of any such report.

740. We have the evidence of a watchman named Hansen that he reported two years ago that this platform was in an unsafe condition? I presume he reported it to Captain Jackson.

741. No such report has come under your notice? Not to my recollection, and I do not think it has. I am sure I should have remembered it.

742. Had you received a report from Captain Jackson, as to the unsafe condition of the platform, you would have had it attended to? At once.

743. From whom could we obtain particulars as to the construction of the platform? From the Engineer-in-Chief for Public Works, or from Mr. Grimshaw. Probably Mr. Grimshaw would be able to tell you the particulars better than would Mr. Darley.

744. You said you wrote a minute suggesting that an inspection of platforms and wharfs should be made? Yes.

745. The question suggests itself whether the inspection should be under the Public Works Department or under the Treasury;—you think it would be better that it should be under Mr. Darley, who is directly responsible for the safety of the structures? When I mentioned an inspection, it did not necessarily mean the appointment of a new man. One of our present inspectors would do the work.

746. He would be responsible to you for it? Yes.

747. You think it is necessary that such an inspection should be made? Most undoubtedly.

748. *Mr. McAllister.*] When the gangway was decked, about a year ago, did the repairs come under the notice of your Department? They did not come under my notice. I have seen, from the papers, that something was done.

749. Would you be informed by the Treasury that such work was necessary? It depends altogether upon how the thing came about. I only know from seeing the evidence taken at the inquest that some time ago the floating jetty went up to Cockatoo Island, to have some repairs made. When the pontoon was sent up the landing-stage was sent with it; but no request was made, I believe, that anything should be done to the landing-stage; and, as a matter of fact, I think nothing was done. The matter did not come under my notice at all until I saw the result of the inquest.

750. Have you any recollection of a floating jetty at one of the ferries becoming leaky one night? Yes.

751. Was that officially reported? It was telephoned to me at night by my messenger. I telephoned back for the fire-engine, and did everything in connection with the matter. It was not an official report by the Treasury. As a matter of fact, we knew all about it, and had the pumps at work in consequence of the action taken by our head messenger in the Public Works Department. He telephoned me up in the middle of the night, and I communicated with the man in charge of our tugs, and telephoned to the fire station, and got everything in working order.

752. Have you any recollection as to how long that punt had gone without any skilled inspection? No.

753. Was the necessity for the appointment of an inspector to deal with such matters mentioned at the time? Not to my knowledge. The matter did not come before me. What took place was not the result of anything wrong with the punt itself. It was an accident such as might happen at any moment to a new punt.

754. Something ran into it? Yes.

755. Have there been any other accidents of that description within the past few years? To the best of my recollection, no.

756. Suppose a wharf in the course of ordinary wear and tear became cobra-eaten, and consequently dangerous, would you do anything to that wharf, unless you were advised of its condition by the Treasury? We should make repairs if our inspector observed the thing himself; but there is just a possibility that he might not observe it; and that is the weak point in the whole matter. There is no officer whose special duty it is to examine wharfs, floating jetties, and landing stages. Our inspectors look after all new wharfs or additions, or repairs to wharfs when they see that there is any necessity for repairs. They naturally report the matter at once, but it has not been part of the inspectors' duties in the past to go round to all the wharfs, irrespective of whether he is doing anything to them, and to report the state they are in. He only reports what happens to come under his observation, whatever it may be.

757. Does he supervise the erection of sheds on wharfs? No.

758. Who supervises the erection of sheds? That would be an architect connected with the Harbours and Rivers branch.

759. A man who was in the habit of looking after repairs to buildings on the wharfs would be more likely to have his attention directed to the immediate details of his own department—he would not be likely to be looking underneath the structures to ascertain their strength? No; the sheds are looked after by an architectural draftsman, who does nothing at all below the floor of the sheds. The wharfs and everything below the shed would be reported upon by Mr. Moir, the inspector.

760. Had you any special inspector in your mind when you recommended the appointment? Yes.

761. What have been his duties? He has charge of the erection of all new wharfs, and of the repair of any wharfs, but it was not part of his duties to examine the whole of the wharfs with a view to find out whether they had any defects; he carried out whatever he was told to do in the shape of repairs.

762. From whom would he receive his orders? From Mr. Darley, through Mr. Grimshaw. The inspector is immediately under Mr. Grimshaw.

- R. R. P. Hickson.  
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763. *Mr. McRitchie.*] Are you aware that since the inquest Mr. Moir has been going round putting planking on all the old stages? I have no doubt of it.
764. I have observed that new planking has been put upon the stage at Drummoyne, upon the stage leading into Mort's Dock, and upon the one at the Leichhardt ferry? I have no doubt that that is the case. Mr. Moir is now the responsible officer, and he has been since I wrote the minute to which I have referred.
765. This accident has woke him up? It was not a question of waking him up; it was never part of his duty to go round examining wharfs. He was never told to do so; but it is now part of his duty, and naturally he carries it out.
766. *Mr. McAllister.*] Mr. Moir is the officer who has been appointed to supervise the necessary repairs? Yes; but he is in no way to blame for this particular accident, because it was no part of his duty to inspect the particular staging. He did all that he was told to do.
767. *Chairman.*] Could you furnish the Board with a list of the wharfs under the control of your Department? Yes.
768. One man would have plenty to do in going round to look after the different wharfs? I should think so.
769. Is this new duty added to Mr. Moir's former duties? Yes; but if he cannot carry that out, we must have a man doing nothing else. The work will be done, and it will be done properly.

Cecil West Darley sworn and examined:—

- C. W. Darley.  
16 Oct., 1899.
770. *Chairman.*] You are Engineer-in-Chief for Public Works? Yes.
771. You are the head of the Constructing Branch of the Public Works Department? Yes.
772. The Board understand that with respect to wharfs, on their completion by your Department, they are handed over to the Treasury, and they would like to ascertain from you what has been done more particularly with respect to maintenance and repair of the floating jetty at Circular Quay, at which the accident recently occurred? That case is quite exceptional. In other cases wharfs and jetties are constructed from special votes on the Estimates. We then prepare plans and carry out the work. But this was a small emergency job, such as Captain Jackson asks for from time to time. The Treasury find the money for the work in those cases, and we are asked to carry it out. In many such cases the papers do not reach me as the head of the branch at all; they would go direct to the district engineer. In the case of this floating jetty, they went to Mr. Williams, under whose direction a stage was made for putting wool on to a punt.
773. The Board are to understand, then, that this particular jetty and stage were not specially designed for the purpose for which they were afterwards used? They were not designed by the Head Office; there were no drawings, and no one in the office knew anything about it.
774. No plans whatever were made so far as you are aware? No. It was a job which was carried out in a hurry for the Treasury for the shipment of wool. Formerly there was a small suspended stage on the end of the wharf near the Orient Company's berth, which Captain Jackson did not lease to that company. There were two piles out in the water, and a stage was slung from them. The punt was brought underneath, and the wool was run down. It was found that that space was wanted for other purposes, and when the slung stage was done away with they asked that this floating punt should be put in the corner to replace it. Here is a minute which will inform the Board of the history of this particular floating pontoon and stage:—

The stage was constructed for purposes of shipping wool into punts, by Inspector Moir, by day labour, under Mr. Williams' direction, in July or August, 1892. The punt was moored, and stage fixed, and all reported ready for use on the 1st September, 1892.

New Oregon purchased from the Federal Timber Company, originally covered with 2-inch pine planking; but the planks wore through with the truck wheels, and Captain Jackson asked for the deck to be renewed. This was done on the 19th and 20th November, 1897, by day carpenters, Williamson and Stephen, who did the work on a Saturday, making overtime, as it was urgently required.

The new decking put on was 2-inch hardwood, and I learn from the carpenters that they found the bearers quite sound; but they noticed a slight sag in the centre one, and they inserted three  $\frac{3}{4}$ -inch bolts vertically through the beam to tie it to the planking.

The punt was under repairs at Cockatoo Island in September, 1897, being taken into the Dock on the 6th September, and undocked on the 14th. All the necessary repairs to metal, &c., were carried out. The stage was laid on the punt when it was taken to Cockatoo; but no repairs was carried out, as none were asked for.

I have referred to the time-sheet for the Public Works Department for the fortnight ending the 24th November, 1897, and I find that Williamson and Stephen were at work upon the punt and staging on the 19th and 20th November; the time-sheet shows that the men received for repairs to the pontoon at foot of Phillip-street, Circular Quay, £2 6s. 4d. When these repairs were made Inspector Moir was away ill. As a rule, he would look after the men doing that kind of work; but in his absence another man, a very good man indeed, acted for him. This man afterwards went away up to Bourke and died on the return journey.

775. What was his name? I forget his name; but he was acting for Moir. I did not know him personally, but he was always spoken of as a good officer. He was not in good health here, and the doctors said that if he went inland he might improve. He went up to Bourke, but he unfortunately struck the heat-wave there and died in the train at Orange on the way back.

776. *Mr. McAllister.*] The platform bears evidence of having been decked twice, in addition to the original decking;—have you any recollection of the second decking being carried out? No; as far as I am aware there was the original decking, and then, when that decking was taken off in 1897, a hardwood decking was substituted; I know of that redecking, but I do not know of any other.

777. Would Mr. Moir be likely to know of any other? He might know, or perhaps Mr. Williams might be able to give you some information. A number of minor matters of this kind do not come into the head office.

778. There are officers under you who can exercise a certain amount of discretion in the carrying out of small repairs of this description? Yes. The Treasury order the thing to be done, and the papers are then marked off for the officer to carry out the work.

779. *Chairman.*] When this platform was first handed over to Captain Jackson was any information given him regarding the strength of the structure, and the weight which should be put upon it? There was no handing over in the matter; the work was constructed for him. He asked for it, and the office made it for him as if they were acting for him. He asked for a staging and pontoon for the shipment of wool. The structure was put there for the shipment of wool, and it was not thought that it would be used for the shipment of passengers at all. C. W. Darley.  
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780. But Captain Jackson appears to have used it for passenger traffic? Yes.

781. *Mr. McRitchie.*] This particular pontoon is not the first pontoon which was put there;—there was an iron pontoon there at one time? Yes; and before that there was an ordinary stage. I think it was in 1886 or in 1887 that the first pontoon was put there.

782. *Chairman.*] Had your Department been aware that the stage and pontoon were to be used for passenger traffic you would have specially designed them for that purpose? Yes.

783. Have you, since the occurrence of the accident, gone into the carrying capacity of the platform? I have.

784. Taking the beams to be new beams? Yes.

785. Will you tell the Board the result of your calculations? The breaking load of the central girder was 88.44 lb. per square foot. The safe load was  $\frac{2}{3}$  of that, or 11.05 lb. per square foot. The two side girders had a breaking strain of 224.89 lb. per square foot, and a safe load of 28.11 lb. per square foot.

786. Did you take out the weight of the platform? The weight of the deck was 2,940 lb., and the weight of the beams and spikes in planks 300 lb. I distributed that, and in the dead load I took the factor of safety at 4, with 8 for the live load. That is, assuming the timber to be sound.

787. *Mr. McAllister.*] What do you usually set down for the modulus of rupture of Oregon? 7,900 lb. 788. What do you reckon the whole platform would carry as a safe load? The centre girder carries double the load of the two side girders. The side girder gives 731.18 lb. per lineal foot. That is the distributed load to each girder.

789. Do you think the platform was safe for the carrying of live loads such as it was made to carry? It was safe supposing the load were moving, but it was not safe for crowding such as occurred under the unfortunate circumstances when the accident took place. If persons were marching upon the platform you would get nothing like the load to which it was then subjected, but as far as I can make out persons were crushed on to the platform, and held on it stationary. If they were marching the state of things would be altogether different. We had proof of that a short time ago when troops marched over the platform. In that case you had adult men, and that was only a few months ago. Apparently, however, the platform has not been safe for some time. It was most unfortunate that the children should have been crowded on to it, and kept there stationary. It was the worst thing that could have happened. If they had been allowed to pass over the platform there would have been no trouble at all.

790. Who is the officer who generally designs these platforms for the use of the public? Mr. Rossbach; he does the designing for all our wharfs, and for what you may call our permanent work. This work did not reach him at all. It was looked upon as a temporary thing, and it did not reach the head office.

791. Could you tell us what factor of safety Mr. Rossbach allows for the live-load in constructing these platforms? I cannot say at this moment, but we always use hardwood in these cases; it is quite exceptional to use Oregon.

792. But a certain rule is adopted—that is to say, a sufficient margin of safety is always insisted upon in construction? Yes.

793. And Mr. Rossbach would not have used Oregon having regard to the purpose for which the staging was subsequently used? We never dreamt that the staging would be used for such a purpose. I was astonished to see it so used.

794. Suppose a report had been made at any time to the effect that the staging was unsafe, I suppose you would have heard of it; it would have been brought under your notice? Should the papers have come into the office I should have seen them, of course.

795. One of the watchmen employed by Captain Jackson has told us that he reported that the staging in his opinion was unsafe, two years ago, and as recently as twelve months ago. These reports appear to have been made to the officer immediately above him, who said that he reported the matter to Captain Jackson;—the Board would like to know whether these reports reached your Department? We have no record of any such reports, and we should know of them had they reached our Department.

796. Of course, had you received such a report, it would have received your immediate attention? We should have certainly looked into the matter at once; but our officers are so fully occupied that they cannot be expected to go about looking for work.

797. You think that the appointment of an officer, as recommended by the Under Secretary for Public Works, whose duty it would be to inspect these stagings, will insure their safety in the future? I do not think it will be necessary to appoint an officer; we could tell one of our local inspectors to look after all these things.

798. Mr. Hickson has informed the Board that he has recommended that a man be appointed whose special business it would be to look after the platforms at the wharfs? There used to be an officer of the kind in the Treasury. I do not know when he was superseded. If you look at the Blue Book of a few years ago you will find an officer who was called an Inspector of Stagings.

799. That officer appears to have been superseded? Yes.

800. *Mr. McRitchie.*] You do not know whether he was superseded by the Public Service Board? No. Captain Jackson would be able to tell you about that.

801. *Chairman.*] When this staging was sent up to Cockatoo Island for repairs were any special instructions sent with it? As far as I know, nothing was said about the platform at the time. It was said that the punt wanted repairing. As far as I can make out, the staging was left upon the punt as a matter of convenience, and was not touched at all.

802. I suppose the staging would be shifted off the punt while they were repairing it? It would probably be put aside. The platform was redocked in November, and the punt was repaired in September, 1897.

803. I suppose none of the engineers in your office would have had occasion to inspect the staging when at Cockatoo Island? No; instructions were sent up to do certain things to the punt. I have not the papers which were sent up, so that I do not know what was asked to be done; but a requisition goes up

C. W. Darley. for every work done in the dock. I do not know at this moment whether the punt was simply caulked or redecked.

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804. Who is the responsible officer at Cockatoo Island for carrying out repairs of that description? Mr. Pratt, the docking-master—the foreman shipwright.

805. When work of that description is sent to the dock, is he given *carte blanche* to make a good job; does he carry out merely the repairs specified, or is he instructed to make a good job;—suppose, for example, certain repairs are specified, and it is found other repairs are necessary? In that case it would be his duty to call attention to the necessity for them, and he would then be instructed to carry them out.

806. He would call your attention to the necessity for them? Yes.

807. Would the matter be brought under the notice of the Secretary for Public Works? No; it would come to me direct.

808. If, for example, when the sheathing was taken off, it was found that some of the planking was defective, your attention would be called to the matter at once? Yes.

809. And you would then give the necessary authority for the work to be carried out? Yes.

810. Suppose that in such a small matter as the repair of the staging it were found that the girders were not in sound condition, would the rule to which you have referred be carried out;—would the men repairing the staging call Mr. Pratt's attention to the defective girders? In that case the men were working for Mr. Grimshaw. The work was not done at the dock; it was done on the spot. The staging was not moved at all. If the men found the timber was not sound, they should have called the inspector's attention to it, and he would have spoken to Mr. Grimshaw at once. They stated, I believe, that in making borings they found the girders perfectly sound.

811. The men who carry out work of that description are not authorised to do anything except what they are directed to do? No; the inspector is always within reach, and they can refer to him at once. It would never do to give the carpenters power to do what they like.

812. *Mr. McAllister.*] In making your calculations with respect to the strength of the stage you assume that twice the weight of the side girders is on the middle beam? Yes.

813. Would not the thickness of the decking very materially modify that estimate? To some extent; but it is always safer not to allow for the planking distributing much load. When the planking was new it was pine wood, and that would not distribute very much.

814. We found that a section of the middle girder had latterly no value whatever;—it was all so rotten that the decking must have been hanging to the side girders, which were taking all the load? The engineering practice in designing a new staging is to halve the load—to put half the load on to the centre girder where there are only three girders, and a quarter of the load on to each side girder.

815. Would it not be a good plan when constructing a girder, instead of having a straight hand-rail, to construct it in truss fashion, so as to give an extra factor of safety to the structure without making it more expensive? It is cheaper to put a straight piece of strong timber in at once.

816. But in putting on your handrails and bolting them to the side, it would be easy, would it not, to have them tied up, giving an extra factor of safety, which would be always under observation? If it were your object to make them light, you would adopt that system, of course; but in the case of these stages there would be no great object in making them light, and it would be better to put plenty of timber in. When you have a long ship's gangway, the proper course is to lighten it up.

817. These stages are subject to so many conditions as regards weight;—for instance, sometimes there is a big crowd passing over them, and occasionally a horse and cart going down? There is no other stage in the harbour like this one. If an ordinary stage broke, nothing would happen, because the punt would be underneath. This stage was put there as a temporary work, and was, unfortunately, allowed to remain. Another complication which enters into the matter is this: the top of the stage is fixed rigidly on hinges to a stone wall. I gather from the evidence published in connection with the Coroner's inquest that a number of children were crowded on to one side of the punt; the result would be to tilt the punt a little; and if you did that, the girders being fixed as I have described, most of the weight would come on to one girder. The evidence taken before the Coroner showed that another steamer was coming in, and struck the punt. Just when all the strain was upon the one girder, the punt appears to have received this blow. There was therefore a combination of stresses upon the outside girder.

818. *Chairman.*] The evidence which the Board has taken so far would seem to show that there must have been some misunderstanding as to the "Baldrock" striking the pontoon;—the Board have made very careful endeavours to find out whether the "Baldrock" did, as a matter of fact, strike the pontoon, and we are inclined to think that she could not have done so? I heard two men giving evidence before the Coroner, and one of them, who was under Captain Jackson, declared that the steamer which was coming in at the time did touch the pontoon, and that just as she touched it the platform went down. However, whether she touched it or not, she probably created a certain amount of wash, and that wash would give things a twist.

819. *Mr. McAllister.*] Have you any idea when the Treasury first authorised the use of this punt for passenger purposes? I do not know how long ago that would be, but it would be a considerable time ago.

820. It occurs to me that as soon as it became customary to use the pontoon for passenger purposes, the attention of the Works Department should have been called by Captain Jackson, or by someone, to the necessity for a hand-railing; but that was not done—the pontoon appears to have been allowed to remain as it was? It is still used as a wool stage. When the wool is there it is shipped from this punt. The punt has not been transferred from the purpose for which it was originally put there. When there has been no wool to ship, passengers have used the punt, apparently.

821. *Chairman.*] Hansen, in his evidence, told us that he considered it his duty to report the unsafe condition of the staging to Platt, his superior, so long as two years ago;—would Platt report the matter to the Public Works Department or to Captain Jackson? He would report the matter to Captain Jackson. We do not know him at all. The matter would have to come to us through Captain Jackson, who would report the matter to us and ask for repairs.

822. I suppose that when Platt reported the matter to Captain Jackson it was optional with him whether he reported it to your Department or not? He usually writes, asking us to do what is necessary, and we attend promptly to his request. So far as I know, everything for which Captain Jackson asks in our office is carried out promptly. We generally give immediate attention to his reports.

823. *Mr. Cargill.*] Do you know whether the redecking of the platform was or was not done at Captain C. W. Darley Jackson's request? I assume that it was; it was almost certain to have been done at his request.
824. When the old decking was taken off by Williamson and Stephen it would be done under the supervision of the inspector who was acting for Moir? Yes. 16 Oct., 1899.
825. And it would be his duty to report to Mr. Grimshaw if he found it necessary to do anything outside of the work he was specially instructed to do? Yes.
826. As to the inspector of staging to whom you have referred, who formerly appeared you say in the "Blue Book," you do not know personally what his duties were? No.
827. You do not know whether those duties are now being performed by another officer? No. It is quite possible that his duty may have been to look after the old long spar stages.
828. You really do not know what his duties were, and, as far as you are aware, they may be carried out by some other officer? Yes; he would be an officer under Captain Jackson.

WEDNESDAY, 18 OCTOBER, 1899.

Present:—

C. McALLISTER, Esq. | W. McRITCHIE, Esq.  
GEORGE MCCREDIE, Esq. (CHAIRMAN).

J. S. Cargill, Esq., Crown Law Department, was also present.

John Williamson sworn and examined:—

829. *Chairman.*] You are a shipwright? Yes. J. Williamson.
830. You are in the employ of the Government? Yes. 18 Oct., 1899.
831. How long have you been in that employ? A little over nine years.
832. Where are you employed? At different places round the wharfs.
833. Who is your foreman? Mr. Moir; he generally supervises my work.
834. You know the floating jetty at Circular Quay at which the accident took place on 23rd September? Yes.
835. Have you at any time repaired the stage of that jetty? Yes.
836. How long ago? It is nearly two years ago, as far as I can remember.
837. What did you do to it? We removed the old decking, and put new decking on.
838. Of what was the old decking composed? Two-inch Oregon, as far as I remember.
839. Under whose instructions did you redeck the platform? As far as I can remember, it was done under Mr. Christian. Mr. Moir at the time was away on sick leave, and Mr. Christian has since died. He was acting for Mr. Moir, to whom we have always to go for instructions.
840. Did Mr. Christian order you to remove the planking of the platform? As far as I remember, he did; but someone must have given the order. We should not do a thing of that kind without instructions.
841. Was the planking which you took off bad? As far as I can remember, it was worn a bit. The wool season was coming on, and I suppose that, in view of the traffic during that season upon the platform, they wished to make the top good.
842. Did you take the whole of the old planking off before you put on the new planking? Yes.
843. You did not take it off a few pieces at a time? I am not sure about that. I remember that when we undid the planking at the lower end of the platform we found part of the stringers were worn away, and we bolted hardwood pieces along the side in order to raise the level of the bottom end of the platform.
844. You did not do that in order to strengthen the beam? No; it would not have given any strength to the bearers, because it was obvious that if they went at all they would go in the centre.
845. You bolted hardwood pieces alongside with through bolts and nuts? Yes.
846. And you replanked the whole platform with 2-inch hardwood? Yes.
847. After you had taken off the old material forming the decking, did you notice the condition of the beams? Yes.
848. In what sort of condition were they? They were in fairly good condition; I can honestly say that.
849. Did you pay particular attention to their condition after the nails were drawn? Yes.
850. Did you notice any fracture in the side of one of the stringers? No, nothing. There was nothing we could have detected. We had to bore holes through, and we should have soon seen if the timber were bad; but there was no sign of it.
851. *Mr. McAllister.*] What did you bore the holes for? For the hardwood pieces at the end of the staging.
852. *Chairman.*] Do you recollect how many holes were put through the stringers, and what the size of them was? I know that there were three tie-rods for bracing the whole structure together.
853. Do you recollect how heavy they were? I think they were 1-inch iron.
854. Did you notice, when putting the holes through the timber for the tie-rods, whether it was worn in any way? I am certain that at that time there was nothing wrong which could be seen.
855. When you put the planking across, did you fasten it with nails? Yes.
856. Did you fasten it in any other manner? I thought at first that I put only one bolt in the centre beam; but I found, when I went to see the thing the other day, that I had put three bolts through the planking and through the beam.
857. What did you put the bolts in there for? We found that the middle beam was a little sagged. It is generally the case in these structures that the middle beam does sag a little. The bolts we put in are what you would call service bolts—to pull the work together. There was no defect that I could see in the beam. We thought that it would save the jar resulting from the trucks running down, and would prevent the drawing of the nails.
858. The bolts were not put in to tie any fracture? No; I am quite certain of that.
859. You did not notice any fracture? No.

- J. Williams. 860. How far away were the planks that you put on from one another? About a quarter of an inch; we might have put them closer. If the timber was new it would soon shrink a little and become open.  
 18 Oct., 1899. 861. Did you notice any knots at the top of the Oregon? No.  
 862. Have you had much experience of this sort of work? A good deal. I have had nine years' experience in connection with the different stages.  
 863. Is it usual to use Oregon for them? No; this is the only case I am aware of. Hardwood is generally used.  
 864. Had you to move the rails at the side of the platform when you were renewing the planking? No, it was not necessary; we cut round them.  
 865. In your opinion, did the rail form any stay whatever to the platform? It would assist to a certain extent.  
 866. Were there any diagonal braces? No.  
 867. Would there not be a weight rather than any assistance to the stability of the structure? I do not think it would add much weight to it. It would, perhaps, help to stop the vibration.  
 868. Where was the platform repaired? At the wharf where it was in use. It was not necessary to unship it from the Quay.  
 869. You had every opportunity, you think, to notice whether the beams were fractured? Yes. I had a good opportunity to see in these cases if there is anything wrong, and, if I notice it, I always call attention to it. Besides none but a madman would dream of putting new planking over rotten beams.  
 870. You have seen the beams since the accident happened? Yes.  
 871. In what sort of condition do you consider them? In very bad condition.  
 872. They are rotten, are they not? I would not have known them to be the same pieces of wood.  
 873. How do you account for the beam becoming rotten so soon after the repair of the structure;— what reason can you assign for it? When Oregon gets to a certain age, there is no nature, so to speak, in the timber, and once the wet gets into it, that and the heat of the sun combined, would make it go very quickly.  
 874. Have you been engaged since this accident has occurred in repairing any other gangway? Yes.  
 875. Where? At Princes Stairs. I think we put an extra hinge on it.  
 876. Did you notice in what sort of condition the beams were? They were in first-class condition.\*  
 877. They are hardwood? Yes.  
 878. Do you know the size of them? They are 12 in. x 6 in., I think.  
 879. What sort of planking is there on the top? Kauri, I think.  
 880. The platform in that case is much smaller than the platform at Circular Quay? It is narrower.  
 881. Do you know the size of it? I think it is 6 ft. 6 in. in width, and about 24 feet in length, I think; but I am not quite certain about it.  
 882. Is it constructed upon the same principle as that of the platform upon which the accident occurred? It is somewhat similar, but it rocks on a socket at the bottom. There are two castings.  
 883. Are there three bearers in that width of 6 ft. 6 in.? Yes; three bearers of 12 in. x 6 in. ironbark.  
 884. *Mr. McRitchie.*] When you bored the holes down to the beam, you put washers at the lower end of the bolts to screw them up? Yes.  
 885. You are sure that when you bored those holes you detected no fracture in the beam? We could not see any.  
 886. The Board notice that the timber was split, and we naturally came to the conclusion that the bolts were put in to stiffen it? The bolts were not put in to support the middle beam at all; they were put in to bring the work together.  
 887. Did you begin to put in the new planking at the shore end? Yes.  
 888. And you worked downwards? Yes; and as we got near the middle, we found a bit of a sag.  
 889. When the whole of the planking was stripped away, you could not see that any portion of the beam was decayed? No.  
 890. You told the Chairman that you could not account for the Oregon rotting so quickly in two years;— any practical man examining the work as you did ought to know whether the wood was good or not? Quite so.  
 891. Did you put bolts or nails into the hardwood planking? Ubank nails.  
 892. And you did not notice any rot whatever? No; the Ubank nails are flat on the point, and when driven in they do not split timber of that size.  
 893. You are sure there was no splitting of the timber, such as would subsequently let in water? I am quite sure of that.  
 894. *Mr. McAllister.*] Did the pieces of hardwood you put on constitute the first part of the repairs you effected to the gangway? Yes.  
 895. Did you take off sufficient planking at the bottom end of the gangway to allow of your putting on the pieces of hardwood, or did you take off more planking than that? As far as my memory serves me, we took off enough to allow of our putting in the hardwood.  
 896. When you had put in the pieces of hardwood, what was the next portion of the repairs you carried out? We started then to undo the top, and as we took off the old planking we laid down the new planking.  
 897. You did not interrupt the traffic;—there were people coming up and down all the time? There was a temporary fence along the top, and a plank or two were thrown across. There may have been a little interruption to traffic, but not much.  
 898. Therefore you put down the new flooring almost immediately after taking the old material out? Yes.  
 899. You think you put in the new flooring one or two planks at a time? I am not at all certain about that. I am inclined to think that we took off all the old material, prepared the surface for the new material, and then started from the top and worked down.  
 900. Then the traffic was interrupted? To some extent.  
 901. Will you tax your memory so as to enable you, if possible, to throw some light upon the point whether the old planking was removed one or two pieces at a time, and the new planking put down in its place in that way, or whether the old planking was all taken off before the new planking was put on? That I cannot remember.

902. The Board, on examining the old timber, found a shake about 4 feet long, which had been tied <sup>J. Williamson.</sup> together by three  $\frac{3}{4}$ -inch bolts; assuming that you had not noticed the shake, why did you divide those bolts so nicely as to cover the limits of the defect in the beam;—if you did not know that it was there, <sup>18 Oct., 1899.</sup> can you explain how it was that you put in the bolts in that way? I forget the width of the planks; but there would perhaps be one bolt in each plank. The bolts would be put through about the middle of the plank for the purpose for which I put them there. They would therefore be equidistant.

903. One of the bolts went right down alongside the centre tie, and a hole being bored there, practically increased the weakness of the beam instead of strengthening it, on account of the material bored out? That, I suppose, was so.

904. *Chairman.*] You appear to have missed one plank;—if you intended the bolts to tie the centre of the beam why did you not put in three bolts in consecutive planks instead of missing one plank and then going on to the next? We did not take any particular notice. The bolts were not put in to remedy any defect in the beam, but simply to bind the work together in the middle, where the staging was a little bit sagged. I am quite certain of that.

905. *Mr. McAllister.*] Have you any recollection whether you stretched planks up and down on the timber work to keep the traffic open while the repairs were going on? Now I come to think of it, I do not think we did.

906. As a matter of fact, you do not quite recollect the details of the operation;—you do not remember exactly what you did; nothing occurred to fix the matter in your memory? No; there was nothing unusual.

907. The Board, in their examination of the old timber, noticed that a great many of the old nails, instead of being pulled out were knocked down and driven on to the wood, the hardwood planking being put down on the top of them;—did you and your fellow-workman, Stephen, do that? We generally break the nails off. We do not, as a rule, draw old nails.

908. In this case they were not broken off; probably about one half of them were turned over and flattened down, showing that the nails were of good material;—did you notice that the nails offered some obstruction to the bed of the new timber you put on? I do not remember.

909. Do you not think that if the wood were soft enough to enable the nails to be driven down so as to be flush with the new decking when it was on, that should lead you to be suspicious as to the quality of the wood beneath? If they resisted turning over it would have shown that the timber was very good. If it had been bad the nails would not have turned.

910. They were 6-inch nails, and they were driven in probably about half way through the timber, so that there was only 2 inches of the nail sticking up, or perhaps less than that; you bent that 2 inches down and knocked it into the surface of the wood, so that no obstruction might be offered to the cross-pieces you were putting on? That, I believe, was so.

911. Would not that have raised the suspicion in your mind that the timber was not good if it was soft enough for the nails to be driven down in that way? As a rule we break the nails off close in order to get the new work down to where it is required. It is possible that the nails to which you refer may have been bent over when the staging collapsed.

912. We have examined most of the timber that came out, and the nails have come out with the pieces;—the nails to which I refer are nails that came out of the decking previous to the decking you put on? I cannot account for what you describe, because we always make it a rule to have everything close down for the planking.

913. Did you notice that the staging had been decked twice before you decked it? I observed that there were marks of nails in it.

914. Did you observe the old nails bent over from a previous decking? There may have been some, but I do not remember any.

915. *Mr. McRitchie.*] You told Mr. McAlister that during the repairs you thought the traffic was stopped to some extent, what traffic did you refer to;—did you mean constant passenger traffic or casual traffic up and down the gangway? Casual traffic. Perhaps a little boat might come in without being aware we were repairing the gangway, or some scafaring man may have been ashore. [In that case he would run down the beams, to which he would be accustomed.

916. You are not referring to the traffic of picnic parties? No.

917. *Mr. Cargill.*] Was Mr. Christian present while this work was being done? I do not remember; but I recollect that Mr. Moir was away on leave, and that Mr. Christian was acting for him.

918. But you do not know whether Mr. Christian was there at the time? No. As far as I can remember, Captain Jackson's attention at some period of the work was called to it, because I remember his asking me what I was doing to the foot of the staging. I believe his attention was called to the hardwood pieces at the end of the stringers, and, as far as I can remember, he came and looked at them.

919. In answer to Mr. McAlister, you said you did not know how many deckings had been put on the stringers? No; I do not remember having noticed it. We built the structure in the first instance.

920. When was that? It would be about six or seven years ago.

921. What was the decking then? Oregon.

922. Did you at any time between the original building and the putting on of the hardwood decking make any repairs to the stages? I am almost sure we did not.

923. When you took the Oregon planking off two years ago, do you remember noticing whether they were the planks you had put on in the first instance? I could not say for certain whether they were or not.

924. When you took the planks off, was there anything to indicate whether or not it was the original decking? Not as far as I can remember.

925. You did not see any nail holes which would lead you to suppose that there had been another decking after the original decking? No; and it is quite possible that if at any time any of the planking got a bit loose from the wool traffic, some one might have been sent to refasten the planking. That might account for some of the nails which were found.

926. But you yourself did not see anything to lead you to suppose that you were putting on the third deck? No.

927. *Chairman.*] You said you built the platform originally? I assisted to do so.

928. Did you have any plan? I do not think so.



- J. Williamson. 929. Under whose instructions was the platform constructed? I suppose it would be under the direction of Mr. Williams. He was the supervising engineer at that time.
- 18 Oct., 1899. 930. Where was it constructed? Circular Quay.
931. Do you know of any reason why Oregon was put in for the beams? I am sure I cannot say.
932. Was it new timber? It was splendid timber.
933. Ordered for the special purpose? Yes.
934. *Mr. McAllister.*] Have you any recollection as to who assisted you in the building of the gangway? Mr. Christian was what you would call the leading man—he was my senior.
935. *Chairman.*] You do not know whether any calculations were made for the weight the beams were to carry? No. If they had been I should have no knowledge of it. As a workman I should simply do as I was told.
936. You worked to no special plan? Not that I can remember.
937. Who told you what to do;—under whose instructions did you actually carry out the work? Under Mr. Moir, as far as I can remember. I think he was supervising.
938. In making a platform of this description, you would depend entirely upon the instructions of the man immediately over you? Yes.
939. Did you know for what purpose the platform was to be used? I heard that it was to be used temporarily to run wool down.

James Walter Grimshaw sworn and examined:—

- J. W. Grimshaw. 940. *Chairman.*] What is your position in the Government service? My latest grading is Assistant Engineer—first-class. The charge I have is the Harbours and Rivers in the Sydney and South Coast District, including the snagging of the Darling and Murrumbidgee Rivers, and the North Coast, up to Lake Tuggerah.
- 18 Oct., 1899. 941. The construction of wharfs and similar work would be under your charge? All wharfs and training walls, and general engineering, with the exception of the larger sheds on the wharfs, and light-houses. I have not had anything to do with them lately.
942. Will you give us the history of the platform which broke recently at the Circular Quay, as far as you can remember it? The first I can recollect of the matter was that we deepened that corner of the Circular Quay. While doing so the pontoon previously there was moved, and when the deepening was completed it was proposed to put a jetty there. At the same time, Captain Jackson asked to have the pontoon brought back. The pontoon had been used in the meantime for carrying stone at Garden Island. The pontoon was brought back. We did not moor it with piles, because it was not considered necessary. We used merely chains. The staging which has recently broken was made at that time. It was made, I believe, on verbal instructions, by day-labour, and the timber was obtained by requisition. It is hard to remember now; but I believe that Christian and Williamson were the two carpenters, who made it, under the supervision of the clerk of works, Mr. Moir. From time to time repairs have been made to the pontoon or gangway, as Captain Jackson asked for them, or as we might discover them to be necessary. I remember seeing some new planking put into the pontoon. I have looked up all the facts about the pontoon going to the dock, and I obtained the pay-sheets and requisitions showing when it was redecked; but I remember nothing about repairs to the staging at that time. What I do remember distinctly is that the whole thing was intended for the loading of wool. It was never looked upon as a passenger wharf.
943. Were any plans made of the structure, or was it merely constructed by direction of the foreman in charge of the work? I never saw any plans, and I am quite certain that there would be none. Mr. Williams would simply give instructions for the running out of the three timbers, and for the hinging of them on to the wharf. A requisition was made out for the material, and then the work would be constructed. If any defects were afterwards found out they would be corrected.
944. Do you know whether any calculation was made as to the carrying capacity of the platform? I do not think so.
945. If any were made you would know of them? Yes. I am confident that no plan was ever made. It was never dreamt that there was any necessity for it. It was not for a permanent structure.
946. As a matter of fact, the staging was not constructed at all for the carrying of a live load? No. If it had been it would never have been constructed in that way. The matter would have gone before the Engineer-in-Chief, who would have had a proper design made. I understand that for a long time previous to that it was the custom at Circular Quay to have two spars running out with some cross timber lashed on to them, and then some planks upon which the wool was run out to punts and barges or small vessels; and this pontoon was regarded as an improvement upon that, because it would not require fixing up every time it was used. It proved to be so good that they went on using it. It was used, in the first instance, by Departmental boats, and then afterwards the Treasury began to obtain a revenue from it, and other boats came there, until it became a particularly favourite wharf, being outside the traffic. There appears to have been a distinct demand for the wharf.
947. Had you been consulted professionally as to this particular platform, what would have been your opinion as to its adaptability to the carrying of live loads, seeing that you knew the material of which it was constructed? It is easy to say now that it was certainly not adapted for that purpose in any way, and I think I should have said the same thing before the accident. In the first place, there were no piles to keep the punt in position; therefore, any boat coming in would carry it as far as the chains would allow one way or the other, and at low tide the chains would allow it to be carried further than at any other time. That would bring over the staging, and there would be a great strain on the hinges unless there were rollers. In this case there was a great distance between the pontoon and the shore, and in that respect it was unlike other pontoons, where there is scarcely any distance separating them. In this case, if the platform did break, anything upon it would naturally go into the water. Then, again, the punt was not a new one, and the staging was a very light one. I feel convinced that no consideration whatever was paid to weight. It was constructed just as a builder would construct a scaffolding such as he had constructed again and again before, and had proved amply strong.
948. Had you been constructing the staging for the carrying of passengers you would not have constructed it in that way at all? Certainly not.

949. As regards the inspection of this platform, have you at any time received a report from the officer of any Department as to its bad condition? Never; a report was made to the effect that some of the planks of the pontoon required repairing, and the repairs were made. I remember that I was sent down to look into the matter, and I reported upon it. I remember that fresh planks were put on, but I could not say at this moment how long ago that would be—probably about five or six years ago.

J. W.  
Grimshaw.  
18 Oct., 1899.

950. Have you ever had a report to the effect that the platform itself was dangerous—that it was not strong enough? No.

951. One of the watchmen under Captain Jackson has told us that he reported what he considered the defective condition of the staging, not to the Works Department, but to another officer in his own Department, on two occasions. Those reports, I suppose, have never been forwarded on to you? No.

952. If such reports were made, your Department certainly did not receive them? I do not remember anything of the kind. I have searched through all the papers on the subject which I could find in order to get information, and I have not found any recent papers of that kind at all.

953. Had you received a report of that description you would have made a careful inspection of the staging? Certainly. I receive a great number of similar reports, both verbally and in writing. If the matter is of importance, we naturally get the reports written. If the matter is a small one, it is attended to at once.

954. Up to a recent date, has there been any inspector of the platforms at the different wharfs? None that I know of. My only inspectors are employed in construction and in carrying out certain works and repairs which they are instructed to carry out. I could not say that there has been any special inspection of the platform. There are men who are employed in cleaning and looking after the wharfs, but whether they are told to inspect and advise I could not say.

955. Is Mr. Moir under you? Yes.

956. What is his actual position? He is called an inspector. He is a senior shipwright and wharf inspector. He superintends the construction as a clerk of works. He may occasionally deal with quantities, but he is not supposed to do so, as a rule. He has simply to see that the work is properly carried out up to specification, and he has to see that all the timber is sound and good. He has more discretion than any other inspector. He has charge of all the shipwright labour upon work in and around Sydney. He would be asked also to inspect any dangerous timber of which he might hear.

957. I suppose he would have been asked to inspect this particular staging if your attention had been called to it? Yes. He would have put a shipwright on to do any little thing that might be necessary, or if he thought it desirable he would send up to the office and get an officer to come down and look at the thing for himself. The officer would then make a report upon the subject.

958. Would it be a part of Mr. Moir's duty to inspect without having his attention drawn to any defect by Captain Jackson, or by the Treasury? No. I have never heard of any such instruction being given to him; he has not the time to do so.

959. You are not aware of any officer whose duty it would be to inspect these platforms? Not in our Department.

960. You know that a recommendation has been made that such an officer should be appointed? I have heard that that is so; but I do not know whether or not he has been appointed. I have no official knowledge of it.

961. You think it would be a good thing to have an officer of that description? Yes; provided he has the time in which to do the work. I think it is quite worth while to have such an officer now. We have a large number of wharfs in Sydney, and it is necessary that someone should go round and see in what state they are. It will take a man all his time to inspect properly.

962. *Mr. McRitchie.*] You do not know who empowered Captain Jackson to take toll for the use of this wharf? No; but I think he has power under the Act to collect tolls. He is the manager of wharfs under the Treasury. I do not know what his actual appointment may have been, but I have always understood that he was appointed more particularly to collect revenue. I believe him to be one of the most zealous officers the Government have. No doubt the fact of his taking tolls from steamers coming to this wharf is evidence of his desire to obtain revenue, and, not being an engineer, he would not dream of the platform being insecure for the purposes for which he used it.

963. *Chairman.*] You do not consider that when the fact of the jetty being used largely for passenger traffic came under your observation there was any responsibility upon you or upon any officer of your Department to direct Captain Jackson's attention to the fact that the staging was not originally constructed for such a purpose? The fact to which you refer never came under my notice in any way. I had no idea that such large crowds of persons were in the habit of embarking and landing there. I was not aware that many steamers, apart from Departmental steamers, came there, and I certainly do not think that either pontoons or stages of that sort should be used by persons waiting, but merely as a gangway. If there is a necessity for waiting-rooms they should be on the shore or on the wharf.

964. When these wharfs are handed over to Captain Jackson, I suppose the responsibility in connection with them is handed over with them? That is what I maintain. We hand over the wharfs, and we hand over with them the keys of the gates and sheds. After that Captain Jackson brings vessels alongside, and puts loading on to the wharfs without consulting us. He has sometimes gone considerably against our wishes in the matter. I will mention an instance: A large quantity of coal was stored on a wharf distinctly against the Engineer-in-Chief's wishes. Some cargo in a shed was also loaded up against some doorways and burst them back. When we direct Captain Jackson's attention to a matter of that kind he would simply say, "I have made arrangements for that; it will be repaired"; and that settles the matter. With Captain Jackson it is entirely a question of business. He says, "If I can make £100, and the repairs can be done for £10, I make £90 by the transaction." I do not see why he should not do so; but we do not like it, because we do not care to see the wharfs and sheds knocked about in that way. Then, again, take what happens in connection with the ferries. We construct a jetty and put a shed on it, and it is let to some company, and the first thing we see is that the company are cutting the timber and making alterations to suit themselves. I do not see any great harm in it; but I merely point out that these things are done without our being consulted. It appears to me that the Treasury are distinctly responsible for the wharfs after they have been constructed and handed over just as are the Railway Department or the Water and Sewerage Board in the case of their works.

965.

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965. In designing such structures as that under consideration, what is the usual factor you allow over the breaking weight? I have had so little to do with the designing of them lately that I do not know what factor of safety has been allowed. I have been attending to the carrying out of contracts and doing outside work.

966. You think a sufficient margin should be allowed to admit of no risk whatever where live loads are concerned? That is generally allowed. The actual margin, I think, is enough; but in these cases there is the contingency of ships coming alongside with a great bump. There is also the moving about of the pontoon and a certain amount of twisting. All these things require a very large margin. At the same time we have not had many accidents, and such accidents as we have had are accidents which would have occurred with whatever margin had been allowed. For instance, the cobra get into a pontoon and nearly sink it before anyone can see what is the matter. It is not a question of margin in such a case; it is a question of design. The cobra get in perhaps where we do not anticipate that they will get in.

967. This particular platform would have been designed very differently had it been intended for a live load? Quite differently.

968. *Mr. McAllister.*] You were informing us a short time ago of Mr. Moir's duties;—from whom does he receive special instructions? I am responsible. He takes his instructions from me. If he gets them from anyone else I am still responsible; I am in charge.

969. He receives his instructions directly from you? Usually; but sometimes one of my assistants may give them. If it were a matter of great importance, I should give them myself. I am aware that Mr. Burrows, a very reliable officer of my office, often gives the instructions, but when that happens, I hold myself responsible for what is done.

970. Doubtless he has received all his instructions lately as to the repair of the ferry gangways and so forth from you? Yes.

971. Do you instruct him as to the *modus operandi* in connection with the different repairs? No; I do not go into details; he is quite competent, and knows what to do.

972. I have noticed several of these gangways under repair lately, and the repairs appear to have been carried out with a view not to obstruct the traffic; the men for example would take up two planks at a time, and would then put down two new planks and so on;—do you think that proceeding with the work in that way they have a fair opportunity to examine the condition of the timber underneath? No doubt if the whole of the timber were stripped off, they would have a much better chance of discovering any defects; but the traffic cannot usually be interfered with.

973. Suppose, for example, they took off six planks at a time, and laid down longitudinal planking for the public for the time being; they would have a much better chance of discovering defects? Quite so; and if they were to do so, I should not raise any objection, if it did not obstruct the traffic, and although the work might take a little time longer, I should not object to it, if there were any material advantage from the point of view you mention.

974. It occurred to me that from the way in which the men were carrying out this work it would be difficult to find out the exact condition of the timber below. I endeavoured to obtain from the shipwright, Williamson, the information whether he adopted the practice I have described in the redecking of this particular gangway some two years ago, but he could not recollect what occurred? I thought they would have a free hand, because they work from Friday night until Saturday night. The work was done in overtime in order that the traffic might not be obstructed. The staging is used for wool, and the men would not work at that on Saturday.

975. Does Mr. Moir give his personal supervision to these men? Yes; he is out of doors entirely.

976. But his time is divided between different places? Yes.

977. Have the men general instructions that if they notice anything which may have escaped Mr. Moir's notice they are to direct his attention to it—suppose for example there were bad timber or any other defect? That has been the recognised practice.

978. The men would naturally take that course? Yes; we put a little more confidence in a shipwright than we should put in an ordinary labourer. The shipwright is a tradesman and knows his trade. We listen to him and encourage him to tell us anything such as you mention. He is not like a labourer who, having no knowledge, might come to us and want to show us how to do the work. We trust a shipwright just as you would trust a mechanic with a certain amount of discretion. Mr. Moir, of course, cannot be standing over the men all the time. The men, as a rule, are all very good men, and I am sure that nothing defective would be concealed.

979. As to all the wharfs under the control of the Treasury, I suppose it never occurred to Mr. Moir or to any other officer of your Department to take it upon himself to inspect them; they would not be likely to look into these matters without instructions received from the Treasury through you? I have often reported matters if I have found anything wrong, but my officers could not, and are not in a position to make any regular inspection, nor have they the time. If we heard that a certain wharf was failing we should have it inspected whether report came from the Treasury or not.

980. You would have an inspection made, under those circumstances, from whatever channel the report reached you? Yes.

981. So far as you are aware, the Treasury have no responsible person to obtain definite information as to the condition of wharfs? I do not think so.

982. Excepting Captain Jackson? He has certain outdoor officers, and if they observe anything wrong they would refer the matter to him and he would refer it to us; but we have not had a responsible man to go round examining the wharfs in rotation and to report upon them. It would take an officer all his time to do that.

983. Have you any recollection of the Milson's Point Ferry punt becoming leaky one night? Yes.

984. That was due to some of the planking being cobra-eaten? Yes; nothing was noticed until the punt began to sink. In that case a fire engine was employed and the punt was kept afloat.

985. Who effected the repairs in that case? I believe the dock sent some men down and they made the urgent repairs. We repaired it afterwards.

986. Would the Treasury rely upon the information it received from the North Shore Ferry Company as to the condition of that particular punt? I cannot speak for the Treasury, but I should imagine that they would.

987.

987. If the Treasury received such information they would inform you and you would effect the repairs. Yes. The Treasury would inform the Department, and I would be instructed to make the repairs.

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988. But you do not know whether the North Shore Ferry Company make a practice of informing the Treasury as to the condition of the punt? I think not, unless there is something wrong. If they saw anything wrong they would write a letter and it would be forwarded to our Department. Eventually, the matter would come to me for a report. I remember that we repaired the North Shore pontoon, and we then discovered one of the great difficulties in connection with the pontoons. We could not take them into dock to repair them because if we did there would be no means of conducting the traffic, as we had no pontoon to put in the place of that taken away. A similar case occurred at Erskine-street, and I took the first opportunity to recommend that we should have a spare pontoon to replace the one needing repair. The Engineer-in-Chief approved of the suggestion, and we are now having two pontoons built of different sizes. One of the difficulties has been that these pontoons are all of different sizes, and by constructing two the big one will suit one wharf and the smaller one another. The two of them together will suit a third wharf. In this way we shall be able to accommodate the different wharfs. As soon as this has been done, I hope that all the pontoons will be sent to dock for repair and overhaul periodically, because they undoubtedly want it. It is quite necessary.

989. After the episode of the pontoon, to which I have referred, did your Department take any special precautions by way of inspection? Yes; and we noted that that particular pontoon was to go to dock as soon as we could manage it.

990. But did your Department take any measures to secure a periodical inspection such as is carried out in the case of vessels? No. The necessity for it has sometimes been referred to, but I have never had any instruction upon the point.

991. Do you know whether the inspection of pontoons is included in Mr. Moir's duties? He has received no instructions to that effect. If Mr. Moir received such instructions I should strongly protest against it, because they would interfere with his other duties.

992. *Mr. McRitchie.*] You think he has quite enough to do already? Yes, more than enough.

993. You think that the inspection of pontoons and staging should be carried out by a special officer? Yes; it will take up the whole of the time of one officer.

994. *Mr. McAllister.*] You think that, having regard to the number of wharfs, pontoons, stages, and works of that description under the Treasury, the proper course would be to appoint an officer, whose special duty it would be to keep himself informed as to the condition of each individual work? Yes; he ought to keep a book, in which he would note the date upon which he inspected a certain wharf, and the condition in which he found it. That could be always referred to in order to show that every attention had been paid to each wharf. He should also be empowered to state whether he considered there was anything irregular going on in connection with the wharfs. Such an officer would be very useful.

995. He should be a properly-qualified shipwright? He should be a man who could always give evidence, and who could keep a book, and he ought to be also an experienced shipwright or engineer.

996. You would place him under the Public Works Department, I suppose? Yes.

997. Although he would be examining work under the control of the Treasury, you think he should be directly responsible to the Public Works Department? I would not express any opinion upon that point; it is a matter of arrangement. He should have a free hand, and should know exactly what he ought to do. If a man in either Department were to be taken off his ordinary work in order to make this inspection, he would be practically of no use, because we should not know what he was doing. I should like to mention that when I first took charge of the district, the west side of Circular Quay was in a most dangerous condition. Captain Jackson had reported the matter several times, and Mr. Williams had confirmed his reports. I believe I made a strong report on the subject. The work was in such an awful condition that we have never since seen anything calculated to make us afraid. The piles were simply hanging on to the girders, and there was a deck and two sheathings. The whole place was in a frightful condition.

998. Who was responsible for that condition of the wharf? I do not know. The matter was reported, but there appeared to be some difficulty in obtaining authority to build it, and the Treasury still went on using it. Persons would hesitate before they tried to block the wharf from being used; but it was, nevertheless, in a very dangerous condition. The Glebe Island and Pymont Bridges have also been in an awful state, and they are only just starting to build new bridges now.

999. It was the lack of funds, you think, as much as anything else that caused this necessary work to be deferred from time to time? Probably; but in this particular case doubtless the accident was due to the want of inspection, and the use for one purpose of a work which had been constructed for another purpose.

1000. Is Captain Jackson recognised by your Department as being a competent man to express an opinion as to the stability of these structures? No. I do not think we should ask him to do that. He is simply a business man. He is quite competent to tell us of his requirements from the point of view of leasing the wharfs, and to deal with matters in a businesslike way. We should not consult him as to stability; but we should give him any advice or assistance for which he might ask.

1001. Is it within your knowledge whether he has any professional assistance to keep him informed in technical matters? I understand that he has not. Originally two men were under him, one of whom was called an inspector of staging, and the other an overseer of staging; you will find their offices mentioned in the Blue Book; but those were in the days when the Department ran out beams from the Quay, and when they wanted men who understood how to do it.

1002. Has the impression got abroad in the Public Works Department that it was from motives of economy that the services of these inspectors were dispensed with? I do not know what the impression of the Department may be. The men were no doubt dispensed with from motives of economy, because having no longer to form the stages which were then in use they were not required. They had not their former duties to perform. Captain Jackson takes up the ground that he was never supposed to go round the wharfs to inspect them, that these two men had not that duty, and that their duty was confined to an inspection of the temporary stages I have described. The only one left was that which has just broken, and that was of a more permanent character than the others.

1003. It evidently did not occur to the Treasury Department that the other works required skilled supervision? I do not think they ever considered the matter.

- J. W. Grimshaw.  
18 Oct., 1899.
1004. Presumably, the minds of the officers of that Department run so much upon figures that the practical part of the wharf management is left out of consideration? If the matter were considered by them they would probably have said that the Works Department looked after repairs and so forth. The Works Department, on the other hand, would say that they handed the wharfs over to the Treasury, and repaired them when asked to do so. You will see that between the two Departments there is a gap.
1005. You think there has been something in the nature of a misunderstanding between the two Departments? I think that if the two Departments had not worked so well together, as they have done, a difficulty would have arisen. But we have always worked very well together, and they have not had any accidents such as that which recently occurred, so that the individual responsibility of each Department has not been considered.
1006. Do you not think that under some circumstances a little tension of armed neutrality, so to speak, between two Departments is more beneficial as regards the maintenance of discipline, and so forth? I think that sometimes it is a good thing to stand one's ground. There has been a little armed neutrality, as you describe it, or what we have called unfriendly acts. When, for example, I have said that I considered that coal ought not to be heaped up upon the wharfs, Captain Jackson, although in quite a friendly way, has said that he considered it to be an unfriendly act. He has said that, to some extent, in chaff, but at the same time he has stated that the wharf ought to be able to carry the coal, and that it was his affair as manager of the wharfs. On the occasion of that particular complaint he distinctly maintained that the wharfs were under his charge.
1007. *Mr. Cargill.*] You said that on one occasion you went down and saw some planking put into the staging which broke? Yes.
1008. Do you remember when that was? No; but it would be some five or six years ago.
1009. That was not the occasion when it was redecked? No. When I said that I was merely giving you my personal recollection of the staging.

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MONDAY, 23 OCTOBER, 1899.

Present:—

C. McALLISTER, Esq. | W. McRITCHIE, Esq.  
G. McCREDIE, Esq., CHAIRMAN.

J. S. Cargill, Esq., Crown Law Department, was also present.

George Scott sworn and examined:—

- G. Scott.  
23 Oct., 1899.
1010. *Chairman.*] What is your occupation? I am a shipwright.
1011. Where are you employed at the present time? At Cockatoo Island. I started to work there on Saturday morning.
1012. But you were formerly in the Government employ, were you not? Yes.
1013. How long ago? I have been in their employ twenty-two years on and off.
1014. You have not been a permanent hand? I am not exactly permanent, but for the last seventeen years I have never had to look for employment in any other direction.
1015. The Board called you this morning to ascertain whether you could give us any information as to the platform at which the accident recently occurred at Circular Quay;—the Board have been informed that you could give them some information regarding that platform—that is as to the condition in which it was when the pontoon was repaired at Cockatoo Island? Before I answer that question I should like to state that it was reported a fortnight ago last Friday, that I and Mitchell had given evidence here. That was the first intimation I received that I was to give any evidence.
1016. Have you any idea who circulated that report? No.
1017. Do you know anything at all about the platform to which I refer? I can speak only as to the condition of the punt—not of the platform. I could tell you the condition of the hull of the punt—that is all.
1018. *Mr. McRitchie.*] You worked only at the punt? Yes.
1019. You made no repairs whatever to the platform? I saw the platform there, but no one did anything to it while I was there.
1020. You heard nothing said as to the state of the platform? No.
1021. *Mr. McAllister.*] Where was the platform when you repaired the punt? Lying on the deck.
1022. Flat or on its edge? It was canted up on to its edge, so that it might be out of the way while we were repairing portion of the deck. When we had repaired that portion, the stage was moved over, so that we might get to work on the other side.
1023. Did you assist in the shifting of the gangway? No; Mr. Pratt's labourer did that.
1024. And as you repaired the various places on the pontoon, the platform was shifted to make room for you? Yes.
1025. That is the only opportunity you had of seeing its condition? Yes.
1026. Did you take any notice of its condition? No; it was covered all over with mud. I could not see if there was anything the matter with it.

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David Mitchell sworn and examined:—

- D. Mitchell.  
23 Oct., 1899.
1027. *Chairman.*] What is your occupation? I am a shipwright.
1028. Where are you at work? At Cockatoo Island; I went there on Saturday.
1029. Have you been employed at Cockatoo Island at any time previous to that? Yes; during the last fourteen or fifteen years, on and off.
1030. Do you remember the pontoon and platform, to which the accident recently occurred at Circular Quay, being at Cockatoo Island for repair? Yes. I was at work on the punt; but I did some repairs to the platform also.
- 1031.

1031. What did you do? One of the beams was springy, and I put another bolt into it to pull the work together. That was all I did. D. Mitchell.
1032. Into which beam did you put the bolt? Into one of the outside beams, I think. It would be the beam on the eastern side of the Quay. 23 Oct., 1899.
1033. You are sure you did not put it in the centre beam? It is so long ago that I forget; I am not positive.
1034. You say you put the bolt in in consequence of a spring? Yes.
1035. Did you notice any fracture on the side of the beam into which you put the bolt? No.
1036. Did you put the bolt through the planking? I could not say.
1037. But if the bolt were intended to take the spring out of the beam, you would put it through the planking, would you not? I should think so. The order I got was to put the bolts in.
1038. Then you put in more than one? I think so.
1039. How many? I cannot say; but I know there were more than one. I think there were two.
1040. Who gave you the order to put them in? Mr. Castle.
1041. He is the assistant foreman? Yes.
1042. Did you pay any attention to the platform, while you were putting in the bolt;—did you see whether there were any defects in the various parts of it? No.
1043. You did not examine it with a view to ascertain its general condition? No.
1044. *Mr. McRitchie.*] When you put the bolt in you had to bore a hole? Yes.
1045. Was the timber sound? Yes.
1046. How long ago would that be? It must have been over two years ago.
1047. Mr. Grimshaw told the Board that nothing was done to the platform at Cockatoo Island, and that the repairs were confined to the pontoon. He told us that if we made inquiries at the dock we should find that nothing was supplied for the repair of the platform;—did you get the bolts you put in from the stores? They were brought to me.
1048. And you are quite sure the timber was sound? Yes.
1049. Did you screw the bolts up with a washer below? Yes.
1050. Mr. Williamson, a shipwright under Mr. Grimshaw, has told us that he put three bolts into the centre beam, because it sagged down in the centre; they were put in as service bolts;—if you put in one or two more bolts, as the case may be, that would make five or six altogether? I am not positive as to the beam into which I put the bolts.
1051. The Board could discover no bolt-holes except in the centre beam? I know I put bolts in somewhere.
1052. May it not have been in connection with the hinges? It is so long ago that I forget; I could not say positively.
1053. *Chairman.*] As a practical man, with a good deal of experience of structures of this kind, would you say that the structure was strong enough for the purpose for which it was being used when you put in the bolts? I did not take any particular notice of the condition of the platform.
1054. Had there been anything specially wrong with it, do you think you would have noticed it? I think I should.
1055. How would you take the spring out of the beam by putting in the bolts you describe; were they merely put in to draw the work close together, to make it compact; you would not add to the safety of the beam unless the bolts were put through some resisting medium; you do not know whether you put the bolts through the planking or not? I could not say.
1056. Did you go back to Circular Quay with the punt to hinge the platform in its position? No.
1057. Could you tell the Board who did so? I could not.
1058. Do you remember whether there were any iron tie-rods between the beams? I could not say.
1059. *Mr. McAllister.*] Another witness has sworn that he put three bolts into the middle beam; the Board know that there were no bolts in the two other beams; cannot you tax your memory to admit of your stating definitely into which beam the bolts were put? I cannot; but I have a strong impression that they were put into one of the outside beams. I do not know how I got the idea in my mind, but it is there.
1060. Do you think you replaced one of the old bolts with a new one? No; I bored new holes.
1061. Did you discover the shake to which you have referred? No; it was discovered before. I was merely sent to do the work.
1062. Was the platform on its edge at the time, or on its flat? On its flat.
1063. Was it off the decking of the pontoon? No; part of it was over the edge of the punt; that is all.
1064. How did you get to work at it? I am not sure now exactly what was done. I cannot remember into which beam I bored the holes.
1065. The Board could not discover any bolt-holes in the side-beams? Then I could not have put them in there, but I know I put in bolts somewhere.
1066. May they not have been hinge-bolts? It may have been one of the hinge-bolts; I know that it was an up-and-down bolt.
1067. And you say that while you were working on the platform it was lying flat all the time? Yes.
1068. Did you see it when it was tilted up on its edge? No.
1069. At no time while you were engaged in repairing it? No.
1070. Was any of the decking taken off it while you were repairing it? No.
1071. Then how did you arrive at a correct conclusion as to the position in which you should put in the bolts? I fancy that the bolts were put in one of the side girders. In that case I should measure from the end of the plank.
1072. You cannot say anything as to the condition of the beams? No.
1073. *Mr. Cargill.*] Was anyone else working at the platform at the same time that you were working on it? No.
1074. And you say that whatever you did was done under the direction of Mr. Castle? Yes.
1075. You were not told to look over the platform generally? No.

J. Platt.

James Platt sworn and examined :—

- 23 Oct., 1899. 1076. *Chairman.*] You are a watchman under Captain Jackson, the Manager of Wharfs? Yes; the head watchman.
1077. How many watchmen have you under you? I am now at Circular Quay; there are two night watchmen, and two day watchmen in addition to myself.
1078. What are your hours of duty? I am on duty twelve and a half hours for six days of the week. I am there from a quarter to 6 in the morning until quarter-past 6 at night—at Princes' stairs.
1079. You are a sea-faring man? Yes.
1080. Is it part of your duty to keep an eye upon the stages used for passenger traffic? Since I have been there, I have always felt it my place to do so, but I have never received any definite instructions to that effect. I felt it my duty to see that all was quite right.
1081. You know the particular stage at Circular Quay to which the accident recently happened? Yes.
1082. Have you paid special attention to the condition of that stage prior to the accident? I have seen it almost daily during fifty weeks of the year. I am constantly on it greasing the blocks and tightening the chains, and exercising general supervision. I have been there to attend to anything which wanted attention.
1083. Have you ever noticed anything which caused you any anxiety as regards the safety of the platform? Some eighteen or twenty months ago I saw a crowd of people on the stage. It was quite full. I was standing a few yards away from it, and I saw it sag down in the middle to an extent which looked to me to be dangerous. I rushed up to the front of the stage and asked the people to get off, and they did so. The stage then came up naturally to its proper position. I then got a line and put it across the outside end of the stage to prevent any more people from going on to the pontoon until the steamer arrived.
1084. How many people had the stage on it on that occasion? I could not say how many there were; but I know the pontoon was full.
1085. Were they adults? It was a mixed crowd; children and adults, such as you generally see at a picnic.
1086. When you noticed this danger, as you thought, attaching to the use of the platform, did you direct anyone's attention to it? Yes; I reported it immediately to Captain Jackson.
1087. Was your report in writing? I am not sure upon that point; but I know I reported it either verbally or in writing.
1088. What was the result of your report? I saw men at work repairing it in the course of a day or two afterwards.
1089. What did they do? They took off the old pine decking and substituted hardwood decking of 2-inch stuff. Two heel-pieces were put on to the two outside girders. The heel-pieces would be about 3 feet in length, I suppose. The heel of the staging working on its bearings had become worn. The girders being of soft wood, the timber ground away, and that is why the hardwood pieces were put on.
1090. Do you think that was sufficient to ensure the safety of that part of the stage? I am not a mechanic, and I have not a sufficient knowledge of mechanics' work to judge. Two shipwrights carried out the repairs.
1091. After that repair of the staging, did you notice that it sagged at all with a load upon it? I never saw anything wrong afterwards. I have seen it springing, but nothing to speak of—not to an extent I should consider dangerous. It was just the sort of spring you would expect in any platform of the kind.
1092. Have you at any time received a report from any of your men as to the condition of the stage? No; there would be no necessity for them to report to me. I am there every day. I should be in a ten-times better position than they would be to make any report if it were necessary.
1093. None of the other watchmen have ever directed your attention to what they considered the dangerous state of the staging? I dare say we have frequently talked the matter over; but there has been nothing in the form of a report.
1094. Where were you on the night of the accident? It occurred some few minutes after I went off duty on the Saturday night.
1095. If at any time you see anything wrong in connection with any of the wharfs or platforms, I suppose you report the matter to Captain Jackson? As soon as possible. If I see anything wrong I am only too anxious to let him know of it at once, so that if an accident happened it could not be said to be my fault.
1096. *Mr. McRitchie.*] One of the watchmen under you is named Hansen? Yes.
1097. Did he ever report to you verbally or in writing that in his opinion the staging was unsafe? No; there would be no need for him to do so. I was there daily, and had a better opportunity than he could have to see the condition of the stage.
1098. He says that from where he was standing on the night of the accident he saw the staging buckling, as it were; and he says he had reported similar occurrences to you a considerable time before that? I do not remember it.
1099. *Chairman.*] Hansen, in reply to Question 229, said :—
229. Have you reported the staging as being in your opinion unsafe? I have.
- I do not remember it.
1100. You have no recollection of that? I have not the slightest recollection of anything of the kind. Some words may have passed between us on the matter; but he made no report.
1101. *Mr. McRitchie.*] He says that you said to him, "I have seen the old man, and the matter is now out of our hands; we have done everything we can," or words to that effect? As I say, there has been no more than conversation between us in reference to the matter. It is very likely that I should have used words of that kind if my attention had been directed to the matter.
1102. You think, then, you may have used those words? I have no recollection of anything of the kind. My judgment would be much superior to Hansen's in such a case, and the opportunities I have of giving effect to what I thought necessary would be better than his. If anything required attention it is not likely that I should give another man the chance to report it to me.
1103. Do you remember when this platform was first used as a passenger platform? No; but I was not in the service then. I have been in the service seven and a half years. It was used on holidays and Sundays for passenger traffic—that is, during the wool season.
1104. *Mr. McAllister.*] You have mentioned one occasion on which you have said you thought the platform looked dangerous;—have you noticed that appearance on other occasions? No. I only remember

remember noticing it in what I thought to be a dangerous condition on the one occasion I mentioned to you.

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1105. Do you remember seeing the Lancer contingent pass over the platform? I was on the Quay when they went away; but I was down at No. 4 Jetty.

1106. Have you ever seen a horse and cart pass over the platform? Yes, once; but long before that. We should not allow such a thing to take place if we were watching it at the time.

1107. Have you seen detachments of military pass over the platform? Yes, on many occasions; perhaps two or three times a week. Men going down to Middle Head for training would use the platform. They would generally march down four abreast. I have suggested to the officers occasionally that the men should be allowed to break their step in going over the staging; in that case, of course, the strain would not be so severe.

1208. Have you noticed whether the men have kept step;—did the practice continue after you spoke of it? Of course, if I were there, I should remind them of what I thought necessary, supposing they were all in step. I merely mentioned the matter as a precaution.

1209. From whom do you receive your immediate orders? From Captain Jackson and Mr. Warren, the assistant manager.

1210. Do you receive orders from anybody else? No.

1211. Do you regard it as part of your duty to keep yourself informed as to the condition of the landing stages round Circular Quay? I do so as a matter of fact, but it is not my duty; I was not instructed to do it.

1212. Had you any instructions to that effect from Captain Jackson? None whatever.

1213. Do you know of any other Government official whose duty it is to keep himself informed as to the condition of the jetties and stages? No one outside of the Public Wharfs Department, and there is no one in that Department who is specially instructed to make an inspection.

1214. Have you seen men from any other Department doing this work? I have seen men occasionally from the Public Works Department making repairs, and so forth.

1215. Were those men carrying out repairs to the necessity for which you yourself have called attention? Yes. For instance, the railing of this particular stage was carried away by the ship "Brilliant," and on the attention of the Public Works Department being called to it they repaired the stage.

1216. Who reported that damage? I do not know. There is another man about the Quay besides myself looking after these things; but I do not know that it would be part of his duty to make a report in such a case. I am referring now to a man named Lovelock. He points out to Captain Jackson sometimes any breakage he notices.

1217. But there is no one in your Department whose special duty it is to make an inspection and to report breakages or the need for repair of any kind? No.

1218. Captain Jackson has never given you yourself definite instructions to look for defects? No; he has given me no instructions at all.

1219. What are your duties? I am head watchman, and in that capacity I have a hundred different kinds of orders in the course of a month.

1220. From whom do you receive your orders? From Mr. Warren, the assistant wharf manager.

1221. But are your duties not more or less defined? It would be almost impossible to define my duties, they are so numerous.

1222. What would you consider your chief duty? To look after picnic boats.

1223. I suppose you are charged with the maintenance of order on the wharfs, and that if you noticed any disturbance you would immediately call attention to it? Yes; if I am unable to quell any disorder myself, I apply at once to the Water Police Station for help.

1124. Which do you regard now as the picnic wharf? No. 4; it is the only wharf we have now which would be of any use for the purpose.

1125. The Floating Jetty has been largely used for that purpose? Yes.

1126. About how many picnics in the course of a week would be leaving the Floating Jetty? In the present month, October, picnic parties would be leaving there every day.

1127. Have you noticed the return of these picnic parties at night? They seldom come back in my time. When I am there I see that order is maintained. I make a point of never allowing the people to accumulate on the pontoon or staging. Immediately they come off I insist upon their going ashore.

1128. Have you ever noticed any persons fall overboard from the Floating Jetty? No.

1129. It does seem to have occurred to anyone that railing should be put round the pontoon? It would not do to put a railing round it, because the steamers' gangways would come in at the sides; the railing would be in the road of the gangways.

1130. Has it ever occurred to you to take a boat underneath the stage of the Floating Jetty and to examine it? No; I have taken a casual glance at it when taking in the slack of the mooring chains, that is all.

1131. How often is it necessary for you to do that? Two months might pass, and it might not be necessary to do it, and during the next month you might require to do it half a dozen different times.

1132. When the tide is low the chains would be at their slackest; at high tide when the punt rises it would pull the anchor home? Yes; we find it necessary, after spring tide, to tighten up the mooring chains.

1233. Have you had to remove the anchor? Only when the punt went to dock—some years ago.

1234. Have you assumed it to be part of your duty to report to Captain Jackson any defect in the decking of the wharfs? Yes; I have felt it my place to let him know that. It has occurred to me that if there were a hole in one of the wharfs, and any person broke his leg in it, the Government would be liable. I have, therefore, always felt it my duty to report anything of that kind, although I have never been instructed to do so.

1135. You have been doing this so long without instructions that you have finally come to regard it as part of your duty? Yes; I suppose others have come to regard it as my duty also, although I never received any instructions.

1136. *Mr. McRitchie.*] You give a receipt when you take money from the steamboat proprietors? Yes.

1137. And you deliver what you receive to Captain Jackson? To Mr. Warren.



- J. Platt.  
23 Oct., 1899.
1138. Do you put down the number of the wharf from which you receive the dues? No; I never make any distinction between the wharfs from which the dues are received. I am not instructed to do that. The picnic service is taken as a whole.
1139. Then you are unable to say how many picnics have left the Floating Jetty in the course of, say, six months? I could tell you how many boats have moored there; but I could not distinguish them.
1140. *Mr. McAllister.*] It would be impossible for you to distinguish the picnic boats from the other boats now? Yes. I collect revenue also from Princes' Stairs, No. 4 Jetty, the eastern side of Watson's Bay jetty, and the floating jetty.
1141. *Mr. Cargill.*] You said that on one occasion when you were standing near the platform, you saw it sag;—where were you standing? I was standing along the side of the iron punt, a few yards away from the staging.
1142. On the Quay? Yes.
1143. Looking down from the top to the bottom? I was standing a few yards from the jetty looking across the staging.
1144. What sort of appearance did the platform present when it buckled, as you say? You could see a little bend in it, not an extensive one; but sufficient to make it look dangerous.
1145. How much out of the straight would the platform be? I could not say; perhaps 3 inches, and perhaps 2½ inches. That would look a good bit in a length of 24 feet.
1146. Did it retain that shape while the people were on it? Yes.
1147. After the new deck was put on, you did not notice anything of the sort? Nothing beyond a little spring; nothing to make the thing look dangerous.
1148. Having once seen the platform sag after the new decking was put on, you took particular notice of what occurred? Yes; I had my eye on the staging for that purpose.
1149. And you never detected any sagging afterwards? No.
1150. Coming to the question of Hansen's reports to you;—you say he never reported? No; he had no instructions to do so.
1151. You would recollect his making any report? I think so.
1152. The matter being one of some importance? Yes.
1153. Had he reported to you, what action would you have taken? I should have referred the matter to Captain Jackson immediately.

John Stephen sworn and examined:—

- J. Stephen.  
23 Oct., 1899.
1154. *Chairman.*] What is your occupation? I am a shipwright, in the employ of the Harbours and Rivers Branch.
1155. Where are you now employed? I am now over at Glebe Island, doing all sorts of work.
1156. You were employed at Circular Quay at one time? Yes.
1157. Who instructed you as to your work at Circular Quay? Mr. Moir, the inspector, generally gave us our instructions.
1158. Do you remember the platform where the accident happened? Quite well.
1159. Do you remember repairing it at any time? Yes.
1160. How long ago? About two years ago; in the middle of November, to the best of my knowledge.
1161. Under whose instructions did you make the repairs? Mr. Williams had charge of the job. He told me that we should have to do the work in overtime on the Saturday afternoon—that would be the only chance we had of doing it, on account of it being in the wool season.
1162. What did you do to the stage? We put on a new deck, and we also put some clamp pieces at the bottom.
1163. Did you do anything besides that, by way of strengthening the stage, for example? We put three or four bolts in through the centre girder.
1164. What was your object in doing that? The middle girder had a sag, and as we worked downwards with the planking, we found that the nails would not draw the planking down to the girder. We therefore put in some bolts to draw the work together.
1165. You are quite certain there was no other reason for the putting in of the bolts? There was no other reason.
1166. You did not notice any fracture in the beam? No.
1167. When you were boring holes for the boats, did you observe from the core what condition the timber was in? It may have been a little bit stained—as you generally find wood stained from iron fastenings; but that was all.
1168. Did you put the bolts through the planks? They were counter-sunk into the planking. They were let in flush, and screwed up from underneath.
1169. Who was supervising the repairs? Mr. Christian. Mr. Moir was away at the time, and Mr. Christian was acting for him.
1170. Did he make a special survey of the structure when you had the planking up? No.
1171. Did you remove the platform in order to redeck it, or did you allow it to remain in its usual position? It was allowed to remain there; it was not unhinged.
1172. Do you remember whether you took all the planking off before you redecked it, or whether you took off only a few planks at a time? We took off three or four planks from the top, as there was some fitting to do round the hinges. We did that first while the traffic was going on. One plank was taken up at the time, and a new plank was put in. We then took off three or four planks from the bottom, in order to put on the clamps. The tide was high, and the stage was down close to the deck, and we took off the planks so that we could get in between and bore holes for the clamps. The other portion of the planking was taken off all at once. We commenced at the top, and worked right down.
1173. *Mr. McAllister.*] Have you a distinct recollection of that? Yes.
1174. What fixes it in your mind? I have been thinking a good deal about it, and, of course, the whole thing has gradually come back to my mind. For example, I can remember that some prisoners came down from the Water Police Court. They were principally women. One plank was put down over the opening, and as they were walking over this plank one of the prisoners said, "I can jump over that quite easily."

1175.

1175. It is customary, is it not, in repairing a stage of this kind, to take up two or three planks at a time and then to substitute new ones before any more planks are taken up? Yes; but that was not done in this instance. We wanted to get the job done that afternoon; there was not very much in it after we had done the fitting work. We had all the planks cut and ready to go down, and the easiest way was to take the lot up and put all the new planking in at the one time. J. Stephen.  
23 Oct., 1899.
1176. You distinctly remember doing that? Yes.
1177. Was the decking which you took off in bad condition? It was merely worn.
1178. Was it badly worn? It was pretty well worn.
1179. The Board found that a great many of the nails used in the old decking were left in the girders and were bent over;—would that not point to the fact that the flooring must have been very bad when it was taken up? It may have been split a little bit at the ends, and that would leave the nails in the girders.
1180. Is it not customary to break the nails off before you put down a new decking? Yes.
1181. When you were turning the nails down, did it not occur to you that the top of the girder was pretty soft;—had it not been soft, would you have been able to drive the nails flat into it? You could drive them flat with a mawl into any kind of Oregon.
1182. It is not a thing, however, which a good tradesman would do? No.
1183. You would not consider it a proper thing to do? Certainly not.
1184. If the wood were very soft at the top, and you found that the nails went down easily into it and remained flush without any trouble in knocking them down, that was probably the reason you bent some nails over without breaking them off? I do not think we should have done that. It may have been that our feet caught against them when we were bringing the planking down, and then perhaps the nails having been bent we turned them right over.
1185. Where was the new timber? On the wharf alongside the stage.
1186. And you put the planking down from the top end? Yes.
1187. So that you would not be walking upon the girders and knocking your feet against the nails or anything else? No; but in taking the old timber up, we may have knocked against some of the nails and turned them. It is quite probable that we walked up the girders and did that.
1188. Do you recollect the amount of sag in the middle girder? I could not tell you exactly, but I remember that as we worked down towards the centre, we found that the nails would not draw the planking down, and we therefore put in the bolts; otherwise there would have been no fastening in the centre.
1189. Do you recollect how many bolts you put in? I think there were three.
1190. You distinctly remember boring the holes for the bolts? I do.
1191. Were the holes bored from above or below? From above; there was no possible way of getting in from below unless we had had a boat or stage.
1192. Did you examine the girders from underneath, in order to make yourselves acquainted with their condition? We had to bend down to screw the bolts up, but when we were doing that I did not notice anything wrong with the girder.
1193. When you were boring the holes, you noticed nothing to attract your attention to the quality of the wood? There was nothing except the staining which you commonly see where there are iron fastenings. That always extends to the depth of the fastenings.
1194. The borings showed the timber to be reasonably fresh? Yes.
1195. Have you had much experience of Oregon? A good deal.
1196. If you had effected repairs to Oregon and had found it in good condition, you would expect it to be reasonably good for five years afterwards? A good deal would depend upon the position in which the wood was lying.
1197. Making allowance for atmospheric influences and the exposure of the wood to sun and rain? The first job I did for the Department was to go down to Moruya and fix up five punts. The punts were lying there for three years. The sun used to shine on the counter at one end, and at the other end there was a sort of half-deck. There were three or four planks which the sun did not get at which were completely rotten. When we put in the caulking-iron from outside the whole of the inside fell away. There was merely a coating of tar.
1198. From your experience of Oregon, would you have expected the timber in this particular platform to decay in the course of two years, assuming it to have been sound at the time you made the repairs? That I could not say.
1199. You have seen the wood since the accident occurred? Yes.
1200. Would you expect it to perish in that way in two years? I should not have thought it would go like that; still you can never tell. We did not plug up the nail holes. If we had plugged them it might have stood longer. The water might have got into them.
1201. Did you use ordinary Ubank nails when you made the repairs? Yes.
1202. Did you bore holes through the planking with a brace and bit before you put the nails in? Yes.
1203. Did your nails go in easily? They would go in easily at any time in that sort of timber.
1204. But they did not appear to go in more easily than usual? No.
1205. Suppose the wood had been rotten at that time, do you think the ease with which you drove the nails would have attracted your attention? Yes; the nails would not have gone any further than the head into the hardwood.
1206. At all events, the nails held well? Yes.
1207. And you did not notice anything unusual in driving the nails? No.

John Jackson made an affirmation, and was examined:—

1208. *Chairman.*] What is your official position? I am Manager of Public Wharfs and Resumed Properties. J. Jackson.  
23 Oct., 1899.
1209. When were you appointed to that position? I have held it for fifteen years within a few days. I was appointed on the 1st November, 1884.
1210. At the time of your appointment, did you receive any particular instructions as to the duties you were to perform? No; I understood that I was only to administer the Wharfage and Tonnage Act.
1211. Have you a copy of your appointment? No.

- J. Jackson. 1212. Did you regard the administration of the Wharfage and Tonnage Act as the limit of your duties?  
At that time, Yes.
- 23 Oct., 1899. 1213. Have any other duties since been added to your office? Not connected with the wharfs; but the Government have put all the resumed properties in my charge.
1214. All the wharfs are under your control? Yes.
1215. Including the wharfs at Pyrmont, Woolloomooloo, and White Bay? Yes; also the wharfs at Botany, the northern rivers, Bourke, and other places.
1216. You consider that your duties relate more particularly to the collection of revenue? I have the business part of the wharf management.
1217. When wharfs are handed over to you from the Public Works Department are they accompanied with any certificate as to their completeness? No; I may say that I sometimes have to obtain the use of a wharf before it is completed. The Public Works Department work in with me in order to give me a completed portion, and I obtain revenue from that. When the entire wharf is completed I take charge of it, but there has never been any formal handing over that I know of. I naturally notice when a wharf is nearly completed, and I write to the Treasury to have it proclaimed under the Wharfage and Tonnage Act to admit of the legal charging of dues.
1218. Are the wharfs and sheds built after suggestions from you as to what is required? Yes; I generally write to the Treasury when a new wharf or when more shed accommodation is wanted.
1219. You formally apply for it? Yes. The application is sent to the Treasury. The Treasury approve of it, and it is then sent on to the Public Works Department. They then do the whole of the work.
1220. Do they consult you while the works are in progress? Yes, sometimes. I will give you a case in point. It was planned on the eastern side of Woolloomooloo to make three berths of 300 feet each. I objected to that, because berths of 300 feet are of no use now-a-days. I suggested that they should do away with those 300 feet berths, and make one long one of 1,000 feet.
1221. If after you have taken possession of wharfs you find that any alteration or repairs are required, what procedure do you follow? I write to the Treasury, and the same routine is gone through which I have already described. Suppose, for example, a berth is too short, and I ask that it may be extended to a certain length.
1222. Is that routine observed always in the matter of repairs or maintenance? I have absolutely nothing to do with maintenance.
1223. Have you no staff to look after repairs? No; nor is there any man appointed to look after them. No one of my officers knows anything of the technical part of wharf construction.
1224. Have you no inspector who reports to you from time to time the condition of the wharfs? No.
1225. Have you at any time had such an inspector? No.
1226. In the Blue Book for 1891 an officer is described in your Department as an inspector of staging? Yes. He was, I think, inspector of planking and stages. He had the supervision of the rigging of the old stages which were 70 or 80 feet long, and which were used on the eastern side of the Circular Quay when the ships were double and treble banked. He was an expert in the rigging of those stages.
1227. Was he a sea-faring man? No; but he had been a long time on the wharfs.
1228. He was not a tradesman? No. These stages were done away with in 1893 or 1894.
1229. Ever since you have been in charge of public wharfs, therefore, there has been no regular inspection of wharfs or jetties? No.
1230. There has been no officer whose duty it has been to report to you the condition, safe or otherwise, of platforms? Most emphatically no.
1231. How comes it, then, that you have been made acquainted with the necessity for repairs? I am always round the wharfs; I am at every wharf at some time in the course of the week.
1232. Whose particular business is it to notice anything wrong in connection with the wharfs or jetties;—has it been anybody's business? No one has ever been appointed to perform that duty. If I have seen anything wrong it has been my practice to send a memo. to the Public Works Department, directing their attention to it. When a wharfinger draws my attention to a matter I take the same course.
1233. You are acquainted with the stage which collapsed on the 23rd of last month? Yes; one of my officers, named Platt, drew my attention to it some time previous to that—I cannot say exactly how long ago. I sent a memo. to the Public Works Department requesting that the stage might be repaired, and it was repaired.
1234. Would that be about two years ago? I think so; and, if my memory serves me right, I asked that the pontoon might be taken into dock, the decking being bad. I am not sure whether I drew attention to the condition of the stage before or after the redecking of the pontoon.
1235. Had you noticed the condition of the stage at any time previous to the action? I never saw anything wrong with it.
1236. Do you remember receiving a report from any of your watchmen as to the stage? I received the report I mentioned from Platt, I think, about eighteen months ago.
1237. Was it in writing? I do not think so.
1238. It was a verbal report? Yes; they always make verbal reports at the Quay. At Blackwattle Bay, Woolloomooloo, or Pyrmont they send me written statements, and I send them on to the Works Department.
1239. Do you recollect any one reporting this particular stage to be dangerous? No.
1240. Did Platt merely say that the stage was out of repair? He suggested that hardwood planking should be put on instead of soft wood. It was only the decking of the stage which I understood was out of repair.
1241. Did he say anything to you as to the stability of the structural part of the platform? Not that I remember; I do not think so.
1242. Have you any officer in your employ who would be competent to express an opinion on such a point? No.
1243. So that in arriving at an opinion as to the stability of a structure you would have to depend entirely upon officers of the Public Works Department? Entirely, so far as the structure of the wharfs is concerned. When I take the wharfs over I take it for granted that they are substantial.
1244. Some of the wharfs are under lease to companies? Yes.

1245. Are they responsible for the repair of any damage that may be done to them? For any damage done; fair wear and tear is excepted. Of course, I should be at once made acquainted with a collision, and I should report the matter to the Public Works Department, and they would send down an inspector. J. Jackson.  
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1246. The Public Works Department would be referred to to assess the damage? Yes.
1247. Have you yourself any technical knowledge of wharfs? No.
1248. You would not be able then, from an engineering point of view, to determine whether a structure is strong enough to sustain the weight for which it is being used? No.
1249. Do you remember when this particular stage was first put in its position? It would be a long time ago; before my time. I think the first stage was put there in 1883. I have here copies of the regulations which apply to that stage; they are issued from the Treasury under the heading of "Additional Wharf Regulations," and are dated 29th October, 1883. They are as follows:—

REGULATIONS FOR THE USE OF THE LANDING STAGE ON THE SOUTH-EAST CORNER OF THE CIRCULAR QUAY.

1. The stage to be used only for the purpose of embarking or landing passengers and their personal luggage, but no luggage is to be left upon the stage.
2. Steam launches or other vessels shall only be permitted to lie alongside when taking in or discharging passengers, and the stage shall not be used as a mooring place.
3. No vessel whose registered tonnage exceeds 100 tons shall be allowed the use of the landing stage.
4. Exclusive of Sundays, and holidays set apart for regattas, boat-races, and other public festivities, the charge for the use of the stage shall be 10s., which amount shall cover any further use the same vessel may make of it on that day. In the other cases mentioned the charge to any vessel using the stage shall be 15s. for the day.
5. No vessel shall be permitted to lie alongside for more than twenty minutes at any one time.
6. No cart or vehicle is to be permitted to come upon the stage.
7. For the contravention or infraction of any of the above regulations the master or owner of any vessel so offending shall be subject to a fine not exceeding five pounds nor less than two pounds.
8. The 1st, 4th, 6th, 8th, 13th, and 14th clauses of the regulations of 24th August, 1880, shall be applicable to this landing stage.

There can be no doubt, therefore, that the wharf was intended for passenger accommodation—in fact, it was put there at the request of a man named Holstead, a steamboat proprietor. He and others made application for it.

1250. You were under the impression that this particular stage was intended for the use of passengers when it was first constructed? Yes; the regulations will tell you that.

1251. The Board have been informed that the stage was built by the Public Works Department especially for the wool traffic? There were two pontoons there at the one time, one of which was used for wool, and the other for passengers. One of these was taken away, and the remaining jetty was then used for passengers and wool. Finally, both the old punts were removed; one of these was an old iron punt. It was a reclamation punt, which had been decked over; it became so thin that it commenced to leak. The other old pontoon was afterwards used as the "Vernon" stage, and at a later date it was used at the foot of Erskine-street by the new Balmain Ferry Company.

1252. And the present Floating Jetty and stage were put there in substitution for one of those old pontoons which had been used for both wool and passenger traffic? Yes.

1253. You were, therefore, under the impression that the jetty and stage were constructed for both wool and passengers? There can be no doubt about that. The regulations make it quite clear that the jetty there was to be used for passengers.

1254. Do you not think it would be a wise precaution to have an officer appointed whose special duty it would be to inspect stages by which passengers embark and disembark? No doubt there should be such an officer with such instructions. I have an instruction now—the first instruction I have ever received upon the subject—to see that an inspection is made by the Public Works Department, and I will see that it is carried out. I myself suggested a few days ago that the platforms should be inspected every three months. My instructions from the Treasury are in these terms:—

Sir,  
I am directed to enclose, for your information, a copy of a Minute by the Under Secretary for Public Works, which has received the approval of the Honorable the Minister for Public Works.

Your attention is specially drawn to the suggestion as to the erection of notices limiting the number of persons using landing stages, and you are also requested to see that the inspections are made periodically, and to report any failure in this regard.

I have, &c.,

F. KIRKPATRICK,

Under Secretary for Finance and Trade.

The Manager of Public Wharfs, Circular Quay.

1255. Do you know whether the Inspector referred to has been appointed? Not yet, I believe; but all the landing stages have been inspected since the unfortunate accident.

1256. By an officer of the Public Works Department? Yes. I have a certificate from the Public Works Department in regard to the Princes' Stairs and No. 3 jetty.

1257. You think that the officer making this inspection should be directly responsible to the Public Works Department? Yes; otherwise there would be a dual control, and that is not advisable.

1258. Do you think that if there had been an officer charged with the duty, the recent accident would have been prevented? I certainly think so.

1259. *Mr. McRitchie.*] You say that whenever your attention is directed to any particular defect you report the matter to the Public Works Department, so that it may be rectified? Immediately.

1260. Are you aware that the North Shore ferry punt, on the Sydney side, is in a dangerous state? Some time ago they rang me up, and said there was something wrong with it, and I communicated with the Public Works Department. I am not aware that the punt is in a dangerous condition now; but I know that it was.

1261. The punt was only patched where it is;—it was not taken to the dock to be repaired? No; but I think they made a good job of it.

1262. Has not that punt a thousand people on it sometimes;—if there were any doubt as to its safety, do you not think it should be removed, and another punt substituted? I understand the Department had to patch the punt there, because they had not at the time a relieving punt.

1263. It has been only patched? Yes; as soon as the new pontoons are finished the pontoon to which you refer will be taken into dock. The Department is now constructing relieving pontoons; they have been in course of construction for some time.

1264. You do not know that the punt to which I refer is now in a very bad condition? I do not.

- J. Jackson. 1265. I am informed it is affected by both cobra and dry rot? I could not say as to that.
- 23 Oct., 1899. 1266. Suppose that is its present condition, it is impossible to say what casualty might happen? I think there should be relieving pontoons, and that all the pontoons should from time to time be taken into dock.
1267. I have been informed by a gentleman in the service of the company that it is very necessary something should be done to this particular punt? No doubt something ought to be done. From what I have observed the punt has been repaired under considerable difficulty.
1268. I have been informed that the punt could not be properly repaired where it now is, and it has been merely patched up? Of course, it could not be properly repaired unless it were taken into dock. It should be thoroughly examined, and I presume that has been done by the Public Works Department.
1269. You think they are aware of the condition of the punt? Yes; they are also aware that the punt at No. 3—the late No. 4 jetty—has cobra in it. They are aware of that, because, hearing an officer say that there was cobra in it, I would not take it over without a certificate.
1270. Since this lamentable accident occurred they have been putting new decking on all the stages? Yes.
1271. Did you suggest it? I think I mentioned it to Mr. Grimshaw.
1272. Mr. McAllister.] You say you joined the Service in November, 1884? Yes.
1273. And the additional wharf regulations that you have quoted are dated 29th October, 1883? Yes.
1274. Did they relate to this pontoon? Yes.
1275. That would make the pontoon sixteen years old? Of course, this is not the same pontoon, nor is it the same stage; but the regulations referred to a pontoon and stage in use at that particular place.
1276. Were the regulations framed by you? No.
1277. They were in existence before you came into the Service? Yes. The former stage and pontoon there were of hardwood. I think the girders would be about 9 by 4; that is, as near, as I can remember. However, that stage was taken away.
1278. It is quite obvious from the regulations that the pontoon was put there for the use of small steamers embarking and discharging passengers? Yes.
1279. It is evident that the jetty was intended for the use of the public, because it is expressly stated in the regulations that no vessel should be allowed to lie there longer than twenty minutes? Yes.
1280. Several witnesses have told the Board that this stage was not intended for the use of passengers? That is the first time I ever knew it; the regulations prove the contrary. The stage has, of course, been used for wool also.
1281. Is it beyond all doubt that this particular platform was there in substitution for the platform to which the regulations you have quoted specially applied? Beyond all doubt.
1282. Have you any knowledge why these particular regulations were framed for that punt? I could not say.
1283. While it was in use exclusively as a wool platform were there any regulations? The pontoon at that place has never been used exclusively as a wool pontoon.
1284. Mr. Darley and Mr. Grimshaw have said that the punt at which the accident happened was originally put there at the request of your predecessor, Mr. Bell, for use in the wool traffic? There can be no doubt, I think, from papers in the Department that the pontoon was put there at the request of Mr. Holstead and other ship-owners. I myself have seen the papers. Mr. Waterhouse was among the applicants.
1285. Would the papers be in the Treasury? Yes; with regard to this particular pontoon, for half the year there would be a loss of revenue if it were not used for passengers, because during many months it would not be in use at all for wool export. Most picnic parties have preferred to use the jetty, especially since the Circular Quay has been so crowded with omnibuses. It is more convenient in every way for picnic parties.
1286. Have you called the attention of the Public Works Department through the Treasury to any very glaring defects in the wharfs round the Circular Quay—on the west side, for example? Yes. I objected to take over the responsibility unless something were done to the wharfs there. Before that the matter was reported by Mr. Williams, of the Public Works Department.
1287. What actuated you in the matter? I could see the rotten state of the wharf. When vehicles passed over they shook the wharf.
1288. I suppose that, in the daily discharge of your duties, it is necessary that you should go to a great many of the wharfs? Yes; every week I am generally twice at every wharf, except, of course, the small wharfs at Botany, White's Bay, and those places.
1289. How often do you see them? I do not see the Botany wharf very much, but they always send me notice if there is anything wrong with it.
1290. Then you immediately direct the attention of the Public Works Department to the matter? Yes.
1291. Do you communicate with Mr. Grimshaw? Generally with the Engineer-in-Chief.
1292. Did it not occur to you that it was rather undesirable that you should obtain information as to an important matter of this kind—that is, as to the dangerous condition of different structures—from officers of your Department who were not responsible for the inspection, and who had no technical knowledge? I never thought of the matter, because it was no part of my duty. I take the wharfs over in good faith, and I have no reason to suppose that there is anything the matter with them.
1293. But they all grow old, and in the course of time become more or less decayed;—does it not occur to you that having regard to such a large number of wharfs and appliances under your control it would be desirable to have an officer whose duty it would be to keep you thoroughly posted up as to their condition? No; I never considered it any part of my duty to inspect wharfs. I have always regarded that as the duty of the Construction Branch.
1294. Why have you assumed it to be part of your duty to convey the information which you say you have conveyed to the Public Works Department? If I saw anything wrong, involving possible danger to life or to Government property, I should naturally report the fact.
1295. You say that you have been constantly doing it—that you have constantly reported to the Public Works Department the necessity for repairs? I have not made reports; I have sent in memoranda.
1296. But you have sent in requisitions for repairs, have you not? No; what I have done has been to direct attention to the fact that such and such a place required repairing.

1297. Have you done this on many occasions? Frequently. I suppose I have done it as frequently as three times a week; sometimes more often than that. J. Jackson.
1298. This has been over and above what you considered your duty? Certainly. 23 Oct., 1839.
1299. Has it never occurred to you that it would have been the better plan to state that, in view of the frequent necessity of these memoranda, you would be glad to be relieved of the necessity for them by the appointment of someone to supervise such matters? No inspector would be about the wharfs as I am; my duties always take me there.
1300. But you say it has been no part of your duty to make these reports? I should not consider that I did my duty if I saw a defect and did not draw attention to it. At the same time, it has not been my official duty. I have made no formal report, but I have directed attention to the necessity for repairs.
1301. When a man for a number of years continues to do a thing which is outside of his ordinary official duties, it gradually comes to be considered part of those duties? There is no doubt about that, and I have no doubt the Public Works Department have thought it part of my duty to do this sort of thing.
1302. Do you think that this may have kept the Public Works Department blind to the necessity for the appointment of an officer to perform this special work? That possibly may have been the case. Of course, the Public Works Department know that I have nothing to do with the construction of wharfs or with their maintenance.
1303. Have your watchmen no specific details given them in regard to their duties? No; they have to see that order is preserved on the wharfs; they have to watch cargo, and go round with the tell-tale every hour.
1304. Do they receive all these instructions verbally? I give instructions in writing to the wharfinger, and he transmits them to the men.
1305. Is it any part of these watchmen's duties to report to you defects in wharfs, stages, or pontoons? No.
1306. Yet they do so regularly? Yes.
1307. Has your attention been under this arrangement called on various occasions to a defect which you might otherwise have missed? There is no doubt about that.
1308. Were the duties of Loclock altered by your instructions? No; he was called originally overseer of planking and staging, but that did not constitute the whole of his duties.
1309. Do you think an officer should be appointed to see to the stability of the different wharfs, jetties, and stages, and that he should have the power to say to what use they should be put. For example, if he finds upon examination that they are being put to a use to which they are not adapted, you think he should be empowered to report that? Yes.
1310. You think that should be part of the duty of such an officer? Yes.
1311. Suppose, for example, that he thought a wharf was being loaded to too great an extent;—suppose he thought that more weight was being put upon it than that for which it was constructed, he should report the fact? I am afraid that would interfere very much with the business of the wharfs. I take it that every wharf the Government build ought to stand much more than is ever put upon it.
1312. Of course, such an officer would require to be a professional man? Yes; he should be an engineer.
1313. And he should be in a position to say whether or not a wharf was being submitted to improper use? Yes.
1314. If he thought more weight was being put upon a wharf than it was able to carry, he should report it to the Public Works Department? If you will allow me to say so, I think there would be some clashing under that arrangement. Such an officer might have certain motives, for example—I do not say it would be the case—in making reports. Take the case of a wharf upon which cargo is landed; I may have a large amount of cargo to put out of a ship, and the officer you speak of may object to it. What I would suggest is that the Public Works Department, when a wharf is constructed, and afterwards, every twelve months, should give me a certificate as to the quantity of cargo which should be placed upon it. Of course, I should then become responsible.
1315. You mean you would be responsible for the placing on it of any additional cargo beyond that specified? Yes.
1316. But, at the same time, you think the wharfs should be so constructed as to carry any reasonable weight? Yes.
1317. And the same, of course, would apply to passenger jetties? Yes.
1318. *Mr. McAllister.*] Instead of the recent regulation, limiting the number of people to be allowed on a jetty, would it not be better to have an assurance that the jetty was able to bear as many persons as could crowd on to it? That, of course, would be preferable.
1319. It is hard sometimes to regulate the number of persons going on to a jetty? Yes. When I received my instructions I wrote to the Public Works Department asking them to furnish me with the number of persons who might be allowed upon one of these floating pontoons.
1320. How would you regulate the number supposing the particulars were furnished to you? If there were more than the specified number the people themselves would have to take the responsibility.
1321. Your officers could not always count the number? No; the regulation would be a dead letter. Of course, the jetties should be strong enough to carry any weight of passengers. No doubt these pontoons, if they were in good order, would carry all the people that could crowd on to them.
1322. *Mr. McRitchie.*] Do you not think it would be better to have a handrail right round the pontoon? We have a handrail at the outer end, but not at the sides, because it would be an obstruction to passenger traffic.
1323. *Mr. McAllister.*] Could you not have chains or falling bars? You might have chains slung along the side of the pontoon, or you might have life-ropes round the pontoon. The chains, besides, would have to be very strong, because the larrikin element is very difficult to deal with.
1324. Do you not think there should be two lifebuoys, with 15 fathoms of lanyard on them, and some boathooks on each pontoon? We put out lifebuoys and boathooks, and 15 or 20 fathoms of line, but the following week they were all stolen.
1325. *Mr. Cargill.*] Do you remember when the change in this particular stage were made? I think it is about four years ago.
1327. Do you remember the Quay being deepened there? Yes.
1327. Was it about that time? I am not quite sure about that.

- J. Jackson. 1328. Do you know how the original pontoon came to be taken away? I think the old iron pontoon was leaking.
- 23 Oct., 1899. 1329. That is the only reason, as far as you know? Yes.
1330. Was the present pontoon substituted at once, or was there any lapse of time? No; there were two pontoons, as far as memory serves me. One was for wool and one for passengers.
1331. They were side by side? Yes.
1332. Were they fastened together? No; there was a passage in between them.
1333. There were separate landing stages? Yes; one was further over. One was about where the Watson's Bay ferry is now, more to the westward.
1334. Which was that? That was the passenger pontoon.
1335. Was that the iron pontoon you have spoken of? Yes.
1336. So that the other pontoon would be used for wool? Yes.
1337. When the iron pontoon was taken away, what was substituted for it? There was only the wool pontoon left.
1338. Was it shifted from its mooring? No; it remained there, and the roof was put over it.
1339. And when the iron pontoon was taken away the passenger and wool traffic went to the remaining jetty? Yes, as far as my memory serves me.
1340. That remained there in use for some time? Yes.
1341. Did any period of time elapse between the removal of this jetty, which you say was used for wool and passenger traffic conjointly, and the substitution of the present punt;—was it a matter of a day or two or a matter of a week? I could not say; really I do not remember; but I know that I got permission to purchase this pontoon.
1342. From whom did you get permission? From the Treasury.
1343. You purchased it from whom? From Robert Towns & Co.
1344. How did you get the staging made? The Public Works Department made that.
1345. Upon your requisition? Yes.
1346. I suppose the papers will show the date of that requisition? No; my impression is that the papers will refer only to the first pontoon, which was put there in 1883.
1347. Do you remember what you asked for when you applied for the staging? No, I cannot say now. I presume I asked for a gangway.
1348. Did you see any officer of the Public Works Department; or did any officer come down to see what was required? I cannot remember now what occurred. Probably I had a conversation with an officer of the Department in reference to the matter; but I cannot remember now what was done.
1349. You did not state to the Department what the pontoon was going to be used for? No; of course the pontoon already there was used for wool and passenger traffic, and I assumed that this pontoon would be used for the same purpose.
1350. But you did not, as far as you can remember, tell the officer of the Works Department that? No.
1351. You have a watchman named Hansen under you? Yes.
1352. Is he in the habit of reporting to you? No.
1353. Has he ever done so? Not that I can remember.
1354. Not merely with reference to this particular stage; but with reference to anything connected with his duties? Not in connection with any defects in wharfs.
1355. Do you remember that upon one occasion when the unemployed were sleeping down at the Quay he reported to you the difficulty he had in watering the blocks? Yes.
1356. And did you act upon that report? I did.
1357. In what way? I drew the attention of the Treasury to the danger of these men sleeping there, and using paper and matches to light their pipes. Afterwards the police removed them.
1358. Acting on instructions from the Treasury? I think so; there were also complaints from the P. and O. and Orient Companies.
1359. It may be assumed then, that at any time Hansen did report to you, his report received consideration? Yes.
1360. Whether you gave effect to his recommendations or not? I never receive a report from anyone without dealing with it at once.
1361. You do not always give effect to recommendations? No; the watchmen sometimes mention all sorts of absurd things; they sometimes object to go round with the tell-tale.
1362. *Mr. McAllister.*] Has there been any friction between you and the Public Works Department at any time? Never.
1363. On one occasion when coal was piled up at the Norddeutscher Lloyd's wharf, did anyone call your attention to the fact that there was too much weight upon the wharf? The Public Works Department wrote to the Treasury.
1364. Did you at that time observe that it was not their business to make such complaints? No. The Department were written to, not because of the weight on the wharf—the wharf would hold double that—there were only 780 tons—it was on account of the defective land-ties, and they are there now.
1365. An officer of the Public Works Department at that time distinctly said that the straining of the land-ties rendered the wharf unsafe, and that you were asked to have some of the coal removed? Yes; and that was done.
1366. Did you describe that as an unfriendly action on the part of the Public Works officer? I think I did say so in a joke to Mr. Grimshaw.
1367. Did you really mean to say that his officer was taking upon himself a duty which was one of your own? No; I did not. I may have said this to Mr. Grimshaw, "I have always considered you friendly, but you did a very unfriendly act in this case."
1368. Upon that particular occasion did you lead him to understand that the wharfs were under your charge, and that the matter complained of was therefore out of his jurisdiction;—do you consider yourself a better judge than a Public Works officer in such a case? If the land-ties were what they ought to have been there would have been no danger to the wharf. It could certainly hold the weight, and if it carried away I should decline to take the responsibility. I should have declined the responsibility even had there been more weight upon the wharf at the time than there actually was.
1369. Do the Public Works Department understand, in a general way, that you decline to take any responsibility in such a case? I cannot say.

1370. You do not wait until an accident happens before you acquaint the Public Works Department with anything needing attention? If I see any defects of course I call attention to them.
1371. You use your judgment in the circumstances as they arise? Yes. That is not the only occasion upon which I have spoken to Mr. Grimshaw about what I considered an unfriendly act.
1372. The suggestion made as to the removal of the weight upon the wharf was carried out promptly? Yes.
1373. You would not have insisted upon the coal remaining there had a responsible officer of the Public Works Department desired to have it removed? Certainly not. There is often more weight on the wharf than that. There is more weight on the wharf now.
1374. I take it that what was objected to was the fact of the coal being backed up against the shed? To my mind, at the time there was not the slightest danger, because the door was protected with a 3-inch plank, and the pile of coal was not more than 9 feet high. I came down at 9 o'clock at night and stopped the colliers from putting out any more coal.

J. Jackson.

23 Oct., 1899.

George Castle sworn and examined:—

1375. *Chairman*] What is your occupation? I am a shipwright. I am assistant to the foreman shipwright at Cockatoo Island, Mr. Pratt.
1376. Do you remember the particular platform to which the accident recently occurred at Circular Quay? Yes.
1377. Do you remember it being sent to Cockatoo Island for repairs? I remember the pontoon coming over.
1378. What were the instructions you received at that time? I received my instructions from Mr. Pratt. He, as a rule, would mark upon the punt what was to be taken out.
1379. But on this occasion you had no instructions whatever as to the platform? No.
1380. Do you recollect anything being done to the platform? I remember it being canted up on edge, so that we might repair the punt; that is all.
1381. You did not instruct anyone to put a bolt into one of the girders of the platform to strengthen it? I did not.
1382. Do you remember two men named Mitchell and Scott being employed in repair of the punt? Yes.
1383. They would take their instructions from you? In some cases they would take them from Mr. Pratt; if he should not instruct them I would do so.
1384. They would not receive their instructions from any other officer? No.
1385. Do you think that, if either of these men had made any repairs to the platform, you would know of it? I do.
1386. And you do not recollect giving any instructions to that effect? No.
1387. You recollect, when I came over to Cockatoo Island, Mr. Pratt telling me that nothing was done to the platform when the pontoon was repaired? Yes.
1388. When you lifted the platform from the deck of the punt, did you notice any weakness in it? No; it stood all right to be lifted.
1389. If you had noticed any weakness in the platform, you would have repaired it, irrespective of your orders? I should have called Mr. Pratt's attention to it.
1390. Were you on the punt when the platform was lifted? Yes; it was lifted through my instructions.
1391. *Mr. McAllister.*] Who engages the shipwrights at Cockatoo Island? Mr. Pratt.
1392. Does he ever delegate the duty to you? I have very rarely done so.
1393. Are these men, Mitchell and Scott, regular employees of the Government there? They have been off a few times.
1394. How long were they off before they were recently employed there? About two months, I should think.
1395. Might it have been three or four months? It might have been.
1396. Do you know why their services were dispensed with? There was no work for them to do as far as I know.
1397. Is it usual to employ shipwrights on Saturday morning? They are employed at any time in the day when they are required.
1398. *Mr. McRitchie.*] These two men were at work last week at Dalgety's wharf, and they went to Cockatoo Island on Saturday morning;—is it not an unusual thing to employ shipwrights on Saturday morning? They are employed at any time of the day they are required. They are paid by the quarter hour, and it is immaterial when they start work.
1399. *Mr. McAllister.*] Have you heard of any friction between these men and Mr. Pratt? Yes; I heard of some friction between them.
1400. Is it not true that they were dismissed when they were last employed at Cockatoo Island, in consequence of this friction? It is difficult to say; I know that other men were put off with them at the same time.
1401. It is not within your own knowledge that there was any friction? I know there was friction, but I could not say the real cause of it. No one has ever explained it to me, and I have seen nothing in writing.
1402. One of these men states distinctly that he received orders from someone as to the repair of this platform, you have no recollection of giving such instructions? I have no recollection of anything in the shape of repairs being done to the platform.
1403. When the platform was tilted up would it not strike you, as a practical man, that you should examine it? No, there was no order in reference to the platform.
1404. You are not supposed to keep your eye about you to detect needful repairs unless you have special orders;—you do not form your own impressions in a case of this kind? No; Mr. Pratt is supposed to do that, if anyone. Of course, if I notice anything wrong I call Mr. Pratt's attention to it. If he gives orders for the work to be done, it is done.
1405. Would you think it part of your duty as assistant foreman when this pontoon or stage went over to the island to examine them thoroughly to ascertain whether they were in order or not? No.
1406. You regard yourself as an ordinary labourer; you do what you are told and no more? That is so.

G. Cast'e.

23 Oct., 1899.



MONDAY, 30 OCTOBER, 1899.

Present:—

C. McALLISTER, Esq. | W. McRITCHIE, Esq.  
 GEORGE MCCREDIE, Esq. (CHAIRMAN).

J. S. Cargill, Esq., Crown Law Department, was also present.

James Walter Grimshaw was further examined:—

J. W. Grimshaw.  
 30 Oct, 1899.

1407. *Chairman.*] I understand that since you were last examined by the Board you have searched for papers in connection with the platform referred to in your previous evidence? Yes.

1408. Have you succeeded in finding any documents which are material? Yes, I have obtained a paper written in 1892 in which Captain Jackson asks that the pontoon on the eastern side of Circular Quay may be replaced; and also certain correspondence in connection with the replacing, including a report to the effect that it had been moored at Circular Quay. There is one other paper referring to the repair of the punt, but I cannot say where it is. These, so far as I know, are all the papers connected with it, beyond the requisition and vouchers handed in by Mr. Darley.

Angus Moir called in, sworn, and examined:—

A. Moir.  
 30 Oct, 1899.

1409. *Chairman.*] What is your position? I am Inspector in the Harbours and Rivers Branch.

1410. When were you appointed? I entered the Department in June, 1879.

1411. What is your particular duty? I look after contracts and day-labour works.

1412. Do you act as clerk of works? Yes.

1413. You mean in reference to new works carried out by the Public Works Department? Yes.

1414. Do your duties end there? No, I generally have the execution of any repairs.

1415. Do you make repairs upon instructions received from the Public Works Department? Yes.

1416. You do not make any repairs upon your own responsibility? Not unless I see they are urgently needed.

1417. It is not part of your duty to look for any part of a wharf or jetty which may be considered dangerous? Not without instructions.

1418. Do you remember the platform to which the accident recently occurred at Circular Quay? Yes.

1419. You superintended the making of that platform? Yes.

1420. Under whose instructions? Mr. Williams was my superior officer at the time; I received my instructions from him.

1421. He is not now in the Department? No; I think it is five years since he was pensioned off.

1422. Was the punt at the Quay when you made the platform? Yes.

1423. Was it moored there? Yes.

1424. Can you remember the exact instructions you received? To make a platform for a wool punt.

1425. Did you make the platform at Circular Quay? Yes. We made the platform on the punt, and then shipped it on to its hinges, and hauled the punt out. That, as nearly as I can remember, is what was done.

1426. Who instructed you as to the timber you were to use? I could not say. I know that the punt was supposed to be there only for a short time.

1427. You understood that the punt and platform were a temporary provision? I understood they were temporary. If the arrangement were permanent, a punt such as that would not have been furnished.

1428. But what led you to believe that the arrangement was only temporary? There was an old iron punt there, and two spars were run out with cross-pieces lashed to them, and planks 30 feet long were run down to the deck of the punt. The Quay wall there was quite different at that time, and was much lower than it is now. When the Quay was reblocked that portion was all taken away, and the wall was set back.

1429. Do you know whether at that time there was any proposal to make a jetty for passengers? I understood that there was.

1430. And that led you to suppose that the stage was only a temporary measure? Yes.

1431. Do you remember the platform being repaired at any time? I believe it was repaired about two years ago. I was laid up with influenza at the time.

1432. Before you went away ill did any report reach you as to the condition of the platform? I do not remember any.

1433. Do you know anything of the repairs made to the platform? I remember that the decking was Oregon, and it was asked that hardwood might be substituted, as the trucks were cutting the decking too much. I suppose a bale of wool would weigh about half a ton, so it is easy to understand that the trucks may have worn the Oregon.

1434. Who was the officer who took your place in the superintendence of the repairs to the platform? Mr. Christian. He has since died.

1435. Since this accident occurred have you made an inspection of any of the other pontoons or platforms about the Quay? I got the order to put on an extra hinge at Prince's Stairs. We have also done some repairs to the pontoon at Erskine-street. The deck was gone in one or two places. We put two planks in the Birkenhead side of the pontoon, and two into the Dock side. Planks were also put into the new Ferry Company's pontoon.

1436. Have you received instructions from the head of the Public Works Department to generally inspect landing platforms belonging to the Government? I received no special instructions. I was asked to look at a jetty down at Woolloomooloo; that was the only instruction I received.

1437. How did you come to be inspecting the jetties without instructions? I am at the Quay about half a dozen times during the day, and I am passing the Balmain Ferry Company once or twice.

1438. Would there be sufficient work to occupy an Inspector continuously in the inspection of jetties and landing stages? I do not think so.

A. Moir.

30 Oct., 1899.

1439. Supposing the inspection included wharfs, do you think there would be enough work for one man to do? I myself have to superintend the whole of the repairs now. I do not say that I make a regular inspection, but if any repairs are wanted I generally have to make them.
1440. Do you not think there has been a good deal of laxity in supervision in the past, and that if the supervision had been better this accident would not have occurred? Perhaps not; still it might have occurred, even had there been an officer looking after such things.
1441. Do you not think that if an officer were specially appointed to look after these works, and were responsible for their stability, the public would be safeguarded? There is no doubt about that.
1442. Do you think that such duties could be added to those which you now discharge? No; I often have more than I can manage as things stand.
1443. Do you think, then, there is a necessity for an appointment such as I describe—that is, an officer who would be about the wharfs day after day, and who would have an opportunity of taking notice of defects? No doubt it would be better to have somebody who would be responsible.
1444. Do you remember some time ago, when a complaint was made in reference to the overloading of a wharf at Circular Quay? Yes.
1445. Had you anything to do with that? Nothing.
1446. Suppose you had noticed anything wrong in connection with the platform to which the accident occurred, what would you have done? I would have had it put right, and reported the matter.
1447. Would you have had to report it to the office first? Had I noticed that the platform was in a dangerous state I should have repaired it first, and reported it afterwards. That is what I generally do if I see anything wrong which requires immediate attention.
1448. Did it ever strike you that the platform was dangerous? No.
1449. I suppose you never examined it carefully? No; we always look for any requests for repairs to come to us from Captain Jackson. Often, when I see that repair is necessary, I ask Captain Jackson to formally ask for it. I do not care to do things of the kind without some authority. I am supposed to have authority for all I do.
1450. *Mr. McRitchie.*] You spoke of putting some planks into the punt at the Balmain Ferry;—did you do anything to the platform on that occasion? We redecked the whole platform. Some of the planks were very thin; they were worn down  $\frac{1}{2}$  of an inch.
1451. You did not see the platform under consideration redecked two years ago? No.
1452. Do you recollect how often it was redecked? I think it was only redecked once. A plank may have been put in now and again.
1453. When we were examining the platform we saw some 6-inch wire nails not broken off, but bent over; it looked as if there was something the matter with the platform, as if the short nails would not hold it, and as if long ones were put in? If there were anything wrong the stevedores would very likely put in nails—for example, to tighten a plank which they might see loose. I have no doubt that that sort of thing has been done.
1454. The longitudinal girders were riddled with nails; would not they tend to split the wood? I am almost sure the platform was redecked only once.
1455. You mean when the hardwood was substituted for Oregon? Yes.
1456. *Mr. McAllister.*] Have you not received a commission from the Public Works Department to thoroughly inspect the various stages since the accident occurred;—have you had any instructions regarding the stages? I have had only one, and that was to put on an extra hinge at Prince's Stairs.
1457. Did you put in some flooring at Prince's Stairs? We had to put in a new hinge, and for that purpose we took up some planks which we did not put down again. We substituted new ones. As far as I can remember we put down one new plank in the middle.
1458. From whom did you receive instructions with reference to the repairs to the Balmain Ferry Company's punt? I think I told Mr. Burrowes or Mr. Grimshaw, and got their authority.
1459. Did you receive no orders from the Department? Papers connected with the work do not come to me.
1460. Did you mention particularly to Mr. Grimshaw or to Mr. Burrowes that the punt was in need of repair? Yes.
1461. Did they instruct you to carry out repairs according to your discretion? Yes.
1462. You are perfectly certain that you received no instructions as regards the examination of stages generally? I did not.
1463. Who repaired the Milson's Point punt the other day when it became leaky? I did.
1464. Did you receive any instructions about keeping an eye on the floating jetties generally? No.
1465. Did what occurred there have the effect of increasing your own vigilance in looking for defects, seeing that such a thing would be liable to occur at any time? No; I cannot say that I exercised any more vigilance.
1466. Were you in the habit of calling Captain Jackson's attention to any defects which came under your own notice? Yes.
1467. You did not report to your own Department? We always looked to Captain Jackson to give us notice of any defects that wanted attention; I think Captain Jackson will bear me out in this.
1468. Has not one of the pontoons at Circular Quay become leaky during the last few weeks? I am presuming that you are referring to No. 3 Jetty;  $8\frac{1}{2}$  inches of water were found in the hold, and it appears that there were a big crowd of people on her. One lot went on board a steamer, and the other lot who were going on to another steamer remained standing there. The pontoon canted over; all the water in her rushed to one side; and people got frightened about it.
1469. Do you remember the date of that occurrence? No, I do not.
1470. Did the steps taken to repair the pontoon come under your personal notice? It really did not want repair. There was a lot of water in the pontoon, and it rushed suddenly over. The pontoon has not been pumped out since it has been there, and it has been there for five or six years.
1471. Are there any pumps fitted on to the punts? Yes; two if not three.
1472. Whose duty is it to pump the pontoons out and see that they are kept quite empty? I could not say. The other day when the water was out I went down below and found that the pipes connected with the pumps were about 5 inches away from the bottom. I mentioned it to Mr. Grimshaw, and told him it would be better to lengthen the pipes, and to put a rose round them to prevent dirt getting into them. I have orders to do that now.

1473.

- A. Moir.  
20 Oct., 1899.
1473. Would portion of the water in the punt be rainwater? It was nearly all rainwater.  
 1474. Have you ever seen persons pumping out the punts? Not until the other day. The North Shore people look after their own punt themselves. I suppose that if any water gets in they pump it out.  
 1475. *Mr. Cargill.*] You say that before the punt under consideration was put in position there was an old punt with two long poles running out? Yes.  
 1476. Used as a wool punt? Yes.  
 1477. You are sure of that? Quite sure.  
 1478. Was there any other punt in the neighbourhood at the time? Not while the iron punt was there.  
 1479. There were not two pontoons side by side within 20 feet of one another? No. There was one there later on with a roof, but I had nothing at all to do with that.  
 1480. Was the iron punt in the same position as the punt at the present time? As nearly as possible.  
 1481. It was in practically the same position? Yes.  
 1482. And, as far as you are aware, that iron punt was never used for passengers? Small launches might come alongside, but no boat went there with any authority.  
 1483. Were not picnic parties despatched from that wharf? I do not think any picnic parties ever went away from the iron punt. It was a very rough arrangement.  
 1484. In what year do you remember seeing the iron punt there? It must be fifteen or sixteen years since it was there.  
 1485. That would be about 1883 or 1884? Yes.  
 1486. It was there until the deepening of the Quay took place? Yes.  
 1487. During the whole of that time, from 1883 until the Quay was deepened, was there only that punt there? There was another punt there, but we had nothing at all to do with it. I know that it was put there, and that a roof was put over it. It would be somewhere about where the Watson's Bay Jetty now is.  
 1488. You are not aware that the pontoon with the roof over it was moored where the present pontoon lies? No.  
 1489. *Mr. McRitchie.*] With regard to the North Shore punt, I understand that you repaired it? Yes.  
 1490. It was in very bad condition? Yes.  
 1491. You could not repair it very well below water? No; we had to cant it over.  
 1492. Do you think that pontoon is safe at the present time? The part I repaired is as safe as any other part.  
 1493. But the other parts might not be safe? We made a good job of it.  
 1494. You went over and saw the punt yourself? Yes; I was there every day they were working.  
 1495. Did you take any planks out? We took them all out. Mr. Pratt was sent down from the Dock the morning the punt was sinking. He patched it over with some boards, oakum, and felt, temporarily, to keep it afloat. The question arose, what could be put in its place if the punt were taken away. They had nothing to put there.  
 1496. There are some relieving pontoons being built now? Yes.  
 1497. Do you think the punt to which I refer is perfectly secure? As to the part I did, I am quite satisfied about that.  
 1498. You examined the punt all over? As far as we could without docking her.  
 1499. In several cases the decks of these punts project over the side; I suppose no one ever goes below to see whether the cobra gets in at the corners of the deck and the punt side? That is just where the cobra does get in.  
 1500. But you think that particular punt is quite safe? Yes.  
 1501. Do you not think that if these punts were covered with yellow or Muntz metal, instead of iron, it would be much better? Yes; it would be cheaper in the long run.

TUESDAY, 31 OCTOBER, 1899.

Present:—

C. McALLISTER, Esq. | W. McRITCHIE, Esq.  
 GEORGE MCCREDIE, Esq. (CHAIRMAN).

J. S. Cargill, Esq., Crown Law Department, was also present.

John Jackson was recalled and further examined:—

- J. Jackson.  
31 Oct., 1899.
1502. *Mr. Cargill.*] You have read the paper produced by Mr. Grimshaw with reference to the construction of the stage, in which you recommend the erection of a small jetty and the return of the punt to the south-east corner of the Circular Quay, where it was originally moored? Yes.  
 1503. That jetty was not erected? No, it never has been.  
 1504. But a pontoon was moored where the pontoon previously used for wool and passenger traffic was? Yes.  
 1505. In your minute of 14th June, 1892, you say that the covered punt used at the "Vernon" was not required;—what punt was that? That was the one which was taken up to the "Vernon,"—a small wooden punt from the south-east corner of Circular Quay.  
 1506. Is that the punt which you have said was used for wool and passengers? Yes.  
 1507. It was too small, and that is why you say it was not required? Yes.  
 1508. You also say, "Mr. Williams has the use of the original wool punt that I proposed to replace";—which punt would that be? That would be the covered punt.  
 1509. That punt had been used for both wool and passengers? Yes; and for stores.  
 1510. But not for wool only? No.  
 1511. Have you seen the minute of the 5th July, 1892, from Mr. Grimshaw to Inspector Cameron? No.  
 1512. Having read that minute, can you say what punt is there referred to? I really do not know what punt is referred to.

1513. When you bought the punt from Robt. Towns & Co. do you know where it was? I do not know where it was; but I have an idea that it was one of the punts which was used in the building of the Hawkesbury Bridge. J. Jackson.  
31 Oct., 1899.

1514. Did you yourself take delivery of it in order to have it moored at the Quay? I am not quite sure as to that.

1515. Did you inspect the punt before its purchase? Yes, I looked at it myself.

1516. Where was it then? I cannot remember; but it was probably at the Quay.

1517. At any rate, you do not know that it was used either by the Treasury or by the Public Works Department before it was moored at the Quay? No, I do not.

1518. Were you present when the pontoon was moored at the Quay? I do not know; but I generally give directions for the mooring of punts. I generally take it upon myself to see that they are properly moored.

1519. You cannot say where this particular punt was brought from? No, I could not.

1520. Having read your own minute of the 14th June, you still say that it was your intention that the punt should be used for passengers and wool? Undoubtedly; the wool season lasts only for three months in the year—for four months at the outside—and it would be folly for me to allow it to lie idle for six or eight months. It is true that in my minute I did not mention passengers; but I did not think it necessary to do so.

1521. *Chairman.*] Did you at any time inform the Department of Public Works that that pontoon and stage were being used for passengers? No; there was no need for me to inform them, because they could see it for themselves every day. Officers of the Department could see picnic crowds going for the jetty.

1522. You took it for granted that the Department knew of the extent to which the jetty was being used although you did not inform them officially? Yes. I do not inform the Public Works Department of what I use the wharfs for. For example, suppose I use a wharf for merchandise; I do not tell them what particular kind of merchandise it is used for. They certainly did not tell me that this particular platform would only carry a bale of wool.

1523. I presume you never had any doubts as to its stability? Never; if I had I should have reported it at once as I should report anything else which I considered dangerous, if, when going round the wharfs, I happened to notice it.

## CIRCULAR QUAY ACCIDENT INQUIRY BOARD.

## APPENDIX.

## 1.

Sir, I beg to bring under your notice, that when the works now being carried out at the south-east corner Circular Quay are completed, it will be necessary to replace the punt in its original position and to erect a stage from the Quay to same.

I would at the same time point out the necessity of erecting a small jetty, about 80 feet long by 10 feet wide, at the foot of Phillip-street, for the use of the police boat. At present, the only available place for shipping prisoners is through the Watson's Bay Ferry Jetty.

The Engineer-in-Chief for Harbours and Rivers.

Public Wharves Office, 11 May, 1892.

I have, &c.,

JOHN JACKSON.

Mr. Williams for report.—J.N.O.P., for E. in-C., 12/5/92. Mr. Grimshaw.—Please make an enlarged plan of this corner of the Quay and fix the position of floating punt and proposed jetty, consulting Captain Jackson on the matter.—A.W., 16/5/92. Plan herewith, showing the position of Police and Customs Jetty and Floating Wool-punt, as required by Captain Jackson.—J.W.G., 25/5/92. Mr. Williams. Separate report and plan herewith.—A.W., 25/5/92.

## 2.

Memo to Captain Jackson, Public Wharves' Office, re "South-east Corner of Circular Quay."

Harbours and Rivers Branch, 110, Phillip-street, 25 May, 1892.

I ENCLOSE tracing showing proposed position of Police and Customs Jetty and Floating Wool-punt for your approval. I find that a gate in fence is provided for the Jetty, and position fixed, and, on measuring the size, I find the punt is considerably larger than sketched in by us on the 18th instant.

Is 27 feet between the jetty and punt sufficient? I think you said it would be.

J. W. GRIMSHAW.

Noted and returned.—J.J., 25/5/92. A.W., 25/5/92.

## 3.

From Alfred Williams to the Engineer-in-Chief.

Department of Public Works, 25 May, 1892.

Subject:—Circular Quay: Respecting Captain Jackson's application for a Jetty to be erected for the use of the Water Police, and to replace floating stage.

The tracing herewith shows the proposed new jetty. The floating stage, with platform, can be replaced at a small cost. This proposed arrangement has been made in accordance with Captain Jackson's views. I beg also to suggest that the wharf should be extended on the line marked A B on plan.

ALFRED WILLIAMS.

Mr. Tillet.—J.N.O.P., 26/5/92. In my opinion there is not sufficient room in this angle of the Circular Quay for both jetty and floating stage, and would suggest that the floating stage only be moored at this place.—J. A. TILLET, 30/5/92. Is there any punt available for a stage.—A.D., 9/6/92. Superintendent.

The original floating jetty, 60 x 30, will be available when "Vernon" is condemned. Mr. Williams will, I think, soon be finished with the other punt about the same size, now used for conveying stone to Careening Cove and Neutral Bay.—A.B.P., 9/6/92.

As the covered-in floating stage is now in use alongside the "Vernon," carrying a steam pump and boiler, I think this matter might be allowed to stand over until the "Sobraon" is finished, when the pump alongside the "Vernon" will be no longer required.—C.D., 13/6/92. Captain Jackson.

The covered punt used at the "Vernon" is not required. Mr. Williams has the use of the original wool-punt that I propose to replace. This is absolutely necessary for shipping of wool into lighters during the wool season. There is ample room at the south-east corner of the Quay for a small jetty, as shown in plan, and it is very necessary that a special place be provided for the police boat. I would strongly recommend that it be carried out without delay.—J.J., 14/6/92. The Engineer-in-Chief for Harbours and Rivers.

When can the punt in question be again placed in the position sought?—C.D., 16/6/92. Mr. Williams. At once, if the Engineer-in-Chief considers that the depth shown on sections submitted with separate paper herewith is sufficient.—A.W., 24/6/92. The mound on sections 2, 3, and 4, seems to be the worst. Move a little more of this, then moor the punt.—C.D., 25/6/92. Mr. Williams. Mr. Grimshaw, please note, and see that the punt is fixed as soon as possible.—A.W., 27/6/92.

## 4.

Department of Public Works, Harbours and Rivers Branch, Sydney, 5 July, 1892.

Memorandum from J. W. Grimshaw to Inspector Cameron, Neutral Bay.

MR. WILLIAMS wants punt brought across to Circular Quay, and moored to Captain Jackson's satisfaction.

J.W.G.

Captain Jackson being away from the office, no one seems to know anything about how this punt is to be moored.—R.C., 5/7/92. I find this punt is at Garden Island. Have her brought to her berth at Circular Quay, and moored about in the position of the red lines on plan; then see if there is sufficient holding-ground for two fender piles to be driven. I must get approval for these piles and a stage.—A.W., 12/7/92. Mr. Grimshaw.

In accordance with the above instructions, the punt has been brought across from Garden Island and moored at Circular Quay, and everything made ready to take the boring for the proposed piles. Captain Jackson has, however, arranged with Mr. Williams to dispense with the piles: accordingly, nothing has been done in the matter, and the punt will be left moored at Circular Quay.—J. W. GRIMSHAW, 15/7/92. Mr. Williams.

Captain Jackson states the piles will not be required.—A.W., 16/7/92.

1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

STEAMSHIPS "SYDNEY," "WESTERN," "FIONA,"  
"ILLAWARRA," AND "NARRABEEN."

(REPORTS OF MR. WILLIAM P. HINCHOLIFF, ENGINEER, R.N., UPON.)

Printed under No. 14 Report from Printing Committee, 19 December, 1899.

SURVEY OF THE S.S. "SYDNEY."

30th September, 3rd and 4th October, 1899.

THE ship was in Mort's Dock. S.s. "Sydney" is 35 years old, having been built in 1864. New engines and boilers were fitted in 1884.

*Forecastle.*

1. The hull plates are pitted considerably all over their surfaces. One plate on port side and two on starboard side, which are much worn, are being sheathed by  $\frac{1}{8}$ -in. steel plate. A hole was drilled on port side, in strake H, and a thickness of  $\frac{3}{8}$  in. was obtained, the original thickness being  $\frac{1}{2}$  in. The frame angle irons are much worn. Stringers and deck beams (which require scraping and painting) are in a safe condition.

*Fore Peak.*

2. A new collision bulkhead of  $\frac{1}{8}$ -in. steel plate is being fitted. The hull plates are fitted all over their surfaces. A hole was drilled in a plate in strake B, port side, and a thickness of  $\frac{1}{2}$  in. bare obtained,  $\frac{1}{4}$  in. being the original thickness. The frame angle irons are much worn. Stringers and deck beams (which require scraping and painting) are in a safe condition.

*Fore Hold.*

3. The hull plates are pitted considerably. In strake F, the plates of which are very thin in places, are being sheathed by  $\frac{1}{8}$ -in. steel plates for the whole length on the port side, and for 20 feet forward on the starboard side. Original thickness of F plates,  $\frac{1}{2}$  in. In one plate in strake E, on port side, a hole was drilled and a thickness of  $\frac{3}{8}$  in. was obtained, original thickness being  $\frac{1}{2}$  in. The boarding was removed for examination of the floors and reverse bars, which were coated with rust and cement. One floor was cleaned and drilled, and a thickness of  $\frac{1}{8}$  in. bare obtained, original thickness being  $\frac{3}{8}$  in. All the floor reverse bars were very thin, and also those of frames. On the starboard side an indentation was observed in strake D, caused, I was informed, by the ship going ashore at some time. The boarding was removed for an examination of the adjacent parts, which were found in safe condition. A hole was drilled in the part of the plate indented, and a thickness of  $\frac{3}{8}$  in. was obtained, which is the original thickness of the plate.

Stringers and deck beams (which require scraping and painting) are in a safe condition. Plates of fore cabin and after bulkhead are also in a good condition.

*Forward Bunker.*

4. Screen bulkhead (not essential to the vessel's strength) in very bad condition. The hull plates are pitted very badly; those in strake F are exceedingly thin in places, and are being sheathed by  $\frac{1}{8}$ -in. plates on both sides of the ship. The coal was removed for the examination of the floors and reverse bars (the latter are much worn). One floor was drilled, after the coating of thick rust was removed, and a thickness of  $\frac{1}{8}$  in. obtained, the original thickness having been  $\frac{3}{8}$  in. The reverse bars of frames were much worn. Stringers and deck-beams (which require scraping and painting) are in a safe condition. Deck beams under coal shoots are in need of immediate repair.

*Boiler-room.*

5. The hull plates are pitted badly, those in strake F are much worn, and are being sheathed by  $\frac{1}{8}$ -in. plate on both sides of the ship. The floors and reverse bars and boiler bearers are in good condition, having been renewed recently. Frame and angle irons are thin; stringers and deck beams (which require scraping and painting) are in a safe condition. A hole was drilled in a plate in strake A, underneath boilers after end, and a thickness of  $\frac{3}{8}$  in. obtained, this being the original thickness.

*Boilers (two in number).*

6. All parts were examined internally and externally as far as could be seen. Internally the shells, tubes, tops of combustion chambers, furnaces, &c., were found in good condition; there was a slight scale. Holes were drilled on top of combustion chamber and furnace in port boiler, and at water-line of shell in starboard boiler, but there was found no diminution from original thickness of plates. The furnaces are in good condition; a patch was refitted at bottom of the starboard furnace of port boiler. Externally, the shell plates, as far as could be seen, were in good condition. Funnel and up-takes are in fairly good condition, but in need of a few minor repairs.

*After Bunkers.*

7. Screen bulkheads are in bad condition. Hull plates are pitted very badly; those on port side in strake F are being sheathed by  $\frac{3}{8}$ -in. plate. On starboard side only the forward plates in that strake are being sheathed. A hole was drilled in a plate in strake F on unsheathed part, and a thickness of  $\frac{1}{4}$  in. was obtained, original thickness being  $\frac{3}{8}$  in. There was too much coal in the bunker for examination of the floors. The angle irons of frames were exceedingly thin. Deck beams (which are worn) and stringers should be scraped and painted; they will require an overhaul in six months' time.

*Engine-room.*

8. The hull plates are pitted as in the other parts of the ship. In strake F the foremost plates on port side are being sheathed by  $\frac{3}{8}$ -in. plate. The floors, which were covered with a heavy coating of rust, grease, and cement, were in good condition. A hole was drilled through one and showed little diminution from the original thickness of  $\frac{3}{8}$  in. The reverse bars of floors and frames are very thin. The plates at the bottom of the bilge could not be seen for grease and dirt. Stringers and deck beams (which require scraping and painting) are in a safe condition.

*After Hold.*

9. The hull plates are pitted as in the other parts of the ship. A hole was drilled in a plate at starboard side of the ship at strake E (which had a heavy coating of rust), and a thickness of  $\frac{3}{8}$  in. was obtained, original thickness being  $\frac{1}{2}$  in. The boarding was removed for the examination of the floors and reverse bars, which were in the same condition as those in the fore hold. One floor on being drilled showed a thickness of  $\frac{1}{16}$  in. The angle irons of frames are thin. Deck beams and stringers (which require scraping and painting) are in a safe condition. Plates of after saloon and forward bulkhead are in good condition.

*After Saloon.*

10. The hull plates and frame angle irons are in much the same condition as in the other parts of the ship, but have been scraped and painted. In strake H on both quarters, for a length of 40 feet,  $\frac{1}{8}$ -in. sheathing plates have been fitted.

*Upper Deck.*

11. Deck, stringers, superstructure, and woodwork are in fairly good condition.

*Paddle-boxes, Floats, Shafts, &c.*

12. All the above-mentioned were carefully examined and found in good condition. Two caps of bearings were removed, one inside the ship and one outside.

*Hull externally.*

13. The plates fore and aft were pitted, those at the water-line considerably so. All are in a safe condition, except those forward in fore-castle, which are not included in present repairs.

*Present Repairs, &c.*

14. The present repairs, which have all been mentioned in the inspection of the internal parts of the ship, consist of 120 feet of sheathing in strake F on port side from the engine-room amidships to the fore peak; 20 feet forward, and 40 feet amidships on starboard side in strake F; also 40 feet of sheathing in strake H on both quarters of ship, besides the sheathing mentioned in the fore-castle.

When new engines and boilers were fitted to the ship in 1884, a doubling strake was fitted amidships in strake H on both sides of the ship, from abreast mizzenmast to abreast the foremast.

*Summary.*

15. The ship after present repairs will, in my opinion, be seaworthy for a period not longer than six months, when it will be necessary for the whole of the reverse bars to frames and floors to have a thorough overhaul, as many will require renewal. The hull plates will require to be examined carefully, especially those at water-line abreast the boiler-room, bunkers, and the after hold.

It would be advisable to have as much of the internal parts of the ship as possible scraped and painted now, before proceeding to sea.

WILLIAM F. HINCHOLIFF,  
Engineer, Royal Navy.

21st October, 1899.

## SURVEY OF S.S. "WESTERN,"

10th, 11th, and 12th October, 1899.

The ship was in dock at Cockatoo Island; she has been laid up for some months, and is 40 years old. The vessel was fitted with the present boilers seven years ago.

*Fore Peak.*

1. The frames, deck beams, gusset plates, and stringers are in a bad condition. The hull plates are pitted badly. A hole drilled on starboard side in strake F gave a thickness of  $\frac{3}{8}$  in. The peak bulkhead and collision bulkhead are in good condition. The hull plates and frames at the bottom are thickly coated with cement.

*Forecastle Deck.*

2. The frames are in bad condition. The hull plates are pitted badly. Stringers and deck beams are in fair condition.

*Fore Hold.*

3. The hull plates are pitted badly. A hole was drilled on the starboard side in strake J and a thickness of  $\frac{1}{8}$  in. full was obtained. Two holes were drilled on port side in strake J, and thicknesses of  $\frac{1}{8}$  in. full forward and  $\frac{3}{8}$  in. aft were obtained. A bottom plate in strake A was drilled and gave a thickness of  $\frac{1}{2}$  in. The floors are pitted badly and covered with rust; three of them were drilled and a thickness of  $\frac{3}{8}$  in. was obtained.

The reverse bars were much worn, wood being used as a substitute for them under the forecastle deck.

*Elevation of Side of Ship.*

K. Sheer strake.
J.
I.
II.
G.
F.
E.
D.
C.
B.
A.
Keel plate.

Adjoining is an extended elevation of the side of the ship, giving the strakes of bottom and side plating. Original thicknesses are not known.

Deck beams, stringers, tie plates, in bad condition. The vertical keel plate is gone completely at bottom in most places. The angle irons of frames are in bad condition; some of them have been strengthened by angle irons 3 in. x 3 in. x  $\frac{3}{8}$  in., riveted to ship's side to defective frames.

The hatch on port side is in bad condition. The after bulkhead is in bad condition at the wing plates, other parts good.

*Boiler-room.*



*Boiler-room.*

4. Hull plates inside bunkers fitted badly; a hole drilled in strake G showed a thickness of  $\frac{1}{8}$  in. The frames were in a bad condition; the floors and bottom hull plates were covered with cement, the cement being removed from one floor and a hole drilled;  $\frac{3}{8}$  in. thickness was obtained. Reverse bars of all floors in fairly good condition. Vertical keel plate is completely gone at bottom in most places. Boiler bearers deck beams, and stringers in safe condition. Screen bulkhead to bunker on both sides of the ship in very bad condition.

*Boilers.*

5. All parts internally and externally, as far as could be seen, were in good condition. There was a slight scale on the tubes, tube plates, and shells, but there were few signs of pitting. Stays were worn, but in safe condition.

Hole drilled on top of combustion boiler; thickness of plate,  $\frac{3}{8}$  in. Another drilled at bottom of furnace gave  $\frac{1}{8}$  in., and a third at water-line of shell showed  $\frac{1}{8}$  in.

Shell, furnaces, funnel, and up-takes in good condition.

*Engine-room.*

6. The floors and reverse bars are in an exceedingly bad condition. Vertical keel plate is entirely gone at the bottom. Reverse bars to frames are very worn, and the hull plates pitted badly. A hole drilled on port side in strake J gave a thickness of  $\frac{1}{4}$  in.

The engines were not opened for inspection, but appear to have been fairly well kept.

*Shaft Tunnel (passing through after hold).*

7. All the bottom frames are covered with cement. The plates of tunnel are in good condition. Shafting pitted, but not to a serious extent.

*After Hold.*

8. Hull plates are pitted badly. A hole drilled in strake J, on starboard side, gave a thickness of  $\frac{1}{8}$  in. full; on the same side of the ship another hole was drilled in strake I, and  $\frac{1}{8}$  in. was obtained. Two holes were drilled in strake J, port side, and a thickness of  $\frac{1}{4}$  in. forward and  $\frac{1}{8}$  in. full aft was obtained. The floors are pitted badly and covered with rust, and the reverse bars of the same are in a very thin state.

Deck beams, stringers, and tie plates are in bad condition. Vertical keel plate completely gone in most places. The angle irons of frames are in very bad condition; some of them had been strengthened, as in fore hold, by angle irons 3 in. x 3 in. x  $\frac{3}{8}$  in.

The bulkhead at forward end is weak for about 8 ft. from bottom; other parts in good condition.

*After Compartments.*

9. Hull plates are pitted badly; frames are thin, but not so bad as in other parts of the ship. Stringers and deck beams in fair condition. A hole was drilled in strake C, on the starboard quarter, and a thickness of  $\frac{1}{8}$  in. was obtained. After bulkhead is in good condition.

*Decks.*

10. Forecastle and bridge decks are in very bad condition, also stringers and ties under latter.

*Hull externally.*

11. All plates are considerably pitted and worn, but, excepting several at the water-line, on both sides of the ship, are in safe condition.

Screw propeller in good condition. A representation was made to me that the keel of the ship was out of line, but, in my opinion, it is not so; the stern quarters above have been damaged, and would tend to give the parts below a bent appearance.

*Summary.*

12. Although the hull plates are in safe condition, excepting those mentioned at water-line, the general condition internally of the frames, floors, reverse bars, stringers, deck beams, tie plates, and vertical keel is so bad that, in my opinion, the ship is unseaworthy.

WILLIAM F. HINCHCLIFF,  
Engineer, Royal Navy.

21st October, 1899.

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SURVEY OF S.S. "FIONA."

18th and 20th October, 1899.

The ship being alongside the jetty, only the parts internally could be inspected.

The "Fiona" was built fifteen years ago, is engaged in the sugar trade, and belongs to the Colonial Sugar Company; at the present time she is undergoing an extensive refit by Mort's Dock and Engineering Company.

*Water Ballast Compartments.*

1. From the fore to aft collision bulkheads the ship is fitted with double bottoms used as water-ballast compartments. There are five in number:—

Two in fore cargo hold, holding 66·8 tons.

One in engine and boiler room, holding 65 tons.

One in after cargo hold, holding 30·5 tons.

The compartments, excepting the parts underneath the boilers, are in much the same condition throughout the ship. The intercostals, floors, and angle irons of same, and the plates of inner bottom, are covered with a coating of rust, varying from  $\frac{1}{8}$  in. thick in the cargo holds to  $\frac{3}{8}$  in. thick in bunkers and engine-room. This on being removed in places found the plates not deteriorated more than  $\frac{1}{8}$  in. from

from original thickness of  $\frac{3}{8}$  in. A hole was drilled in the plate of inner bottom amidships under bunker, and a thickness of  $\frac{1}{8}$  in. was obtained, original thickness being  $\frac{3}{8}$  in. The company's engineer informed me that the whole of the water-ballast compartments were to be scraped and painted.

The compartment underneath the boilers is being wholly renewed with new intercostals, floors, angle irons, and inner bottom plates—all of iron, in lieu of steel. Some of the old intercostals and floors under the boilers, which were in place at the time of this inspection, were completely "gone" in parts, and had, in my opinion, reached their safe limit.

A plan of the intercostals, floors, and gussets, now being renewed, is attached to this report.

*Forecastle.*

2. Hull plates pitted slightly. Frames, stringers, and deck beams in good condition.

*Fore Peak.*

3. Hull plates pitted moderately. A bulge was noticed on the port side above the water-line, caused, I was informed, by the ship going ashore at some time. A hole bored in the plate gave a thickness of  $\frac{1}{8}$  in. bare, the original thickness being  $\frac{1}{4}$  in. All the frame angle irons are thin, but are being renewed. The plates of chain locker and tube are in bad condition, and are being repaired. The part of collision bulkhead forming the fore end of chain locker is completely "gone" in places, it is being sheathed by  $\frac{1}{2}$ -in. plate over the defective parts.

*Fore Cargo Hold.*

4. The inner bottom plates are covered on top with cement, and then "boarded"; the side hull plates are also "boarded" over. This boarding is being removed for the plates and frames to be scraped and painted. The plates seen showed moderate signs of pitting; holes were drilled in strake G on both sides of the ship, and thickness of  $\frac{1}{4}$  in. was obtained, the original being  $\frac{3}{8}$  in. A few of the frame angle irons were thin, but all were in a safe condition.

Deck beams, stringers, and stanchions in good condition. The after bulkhead is in good condition. The hatch is pitted considerably, but is in a safe condition.

*Bunker.*

5. The hull plates are moderately pitted. A doubling strake is fitted on both sides of ship in strake G from the bunker amidships to engine-room. A hole was drilled in strake G in an unsheathed plate, and a thickness of  $\frac{1}{4}$  in. was obtained, being the original thickness of the plate. The frame angle irons, which are thin, are being renewed, and the after bulkhead is heavily coated with rust, but all parts of the bunker are being scraped and painted.

The inner bottom plates are covered, as in forehold, with cement and boarding. Deck beams and stringers are in good condition.

*Boiler and Engine Room.*

6. The hull plates are moderately pitted. A hole was drilled in strake H abrcast engines, which gave a thickness of  $\frac{1}{4}$  in., original thickness being  $\frac{3}{8}$  in. Several of the frame angle irons and gusset plates are being renewed. Inner bottom plates, excepting those being renewed under boilers, are covered with cement and boarding. Deck beams and stringers are in good condition. Forward bulkhead in good condition.

*Boilers (two in number).*

7. All parts internally are covered with a slight scale, which is being removed, but are in good condition. Hole drilled in crown of furnace gave a thickness of  $\frac{1}{8}$  in., and in crown of combustion chamber  $\frac{1}{2}$  in. A patch is being fitted to each boiler at forward end on circumferential seam 5 ft. x 1 ft. 4 in.; also another at the after ends on circumferential seams. In the starboard boiler a small patch is being fitted in the lower ash-pit, and another in the port boiler combustion chamber. Outside of shell plates, as far as could be seen, were in good condition; a few minor repairs are being done to the up-takes; the funnel is in good condition.

*Main Engines (two in number).*

8. Both engines appear to have been well kept, and are having a complete refit. The plates of shaft tunnels, which are in good condition, are being removed for the examination of the propeller shafts and bearings.

*After Cargo Hold.*

9. The hull plates are pitted moderately. Holes drilled in strake G on both sides of the ship gave a thickness of  $\frac{1}{8}$  in., the original thickness being  $\frac{3}{8}$  in. Frame angle irons are in fairly good condition. Inner bottom plates are covered with cement and boarding. The boarding has been removed from the sides of the ship, and the plates and frames are being scraped and painted. Deck beams, stringers, and stanchions are in good condition. The hatch is badly worn and pitted, and in need of immediate repair. The after collision bulkhead is in good condition.

*After Compartment (containing two fresh-water tanks).*

10. Hull plates, frames, &c., are in good condition. In the saloon the boarding is being removed for the hull plates and frames to be scraped and painted. Deck beams are in good condition.

*Upper Deck.*

11. Bulwarks, superstructure, and deck (excepting in the alley-ways, where it is being sheathed in places) are in good condition.

*Summary.*

12. As the ship was under extensive repairs at the time of inspection, I am unable to state whether the "Fiona" is seaworthy or not until these are completed. I was informed she was to be placed in dock in four or five weeks' time.

26th October, 1899.

WILLIAM F. HINCHCLIFF,  
Engineer, Royal Navy.

Sir,

Sir,

R.N. Depôt, Sydney, 22 November, 1899.

In accordance with previous orders of Commander-in-Chief, yesterday, being accompanied by Captain Hickson and Mr. S. Smith, M.L.A., I completed the inspection of the s.s. "Fiona," now on a slip at Mort's Dock, and have the honor to report as follows:—

The hull plates externally were in good condition excepting a slight pitting at the water-line amidships on the starboard side. A plate is also being renewed in strake B (see midship section of ship already forwarded with first report on this vessel) in the bows on the port side.

The repairs inboard, which have already been reported upon, are nearly finished; their completion will render the ship, in my opinion, seaworthy.

I have, &amp;c.,

WILLIAM F. HINCHCLIFF,

Engineer.

The Captain-in-charge.

## SURVEY S.S. "ILLAWARRA."

Friday, 11th August.

1. The ship being alongside the wharf, having one boiler with steam up, the other boiler filled with water, and all machinery "closed up," only a survey of the hull inside the ship, and the part of the hull above the water-line could be carried out; a proposal was made that the ship should be placed in dock at an early date, and also that boilers, two in number, emptied for inspection.

*Fore Peak.*

2. All plates, floors, and angle irons in good condition; the hull plates appear to have been recently wholly renewed, and the angle frames partially so.

*Fore Chain Locker Compartment.*

3. All plates, as far as could be seen, were in good condition; a few of the frame angle irons were very thin in places, and should be repaired at an early date. Underneath the chain locker the bottom hull plates and floors were covered with a layer of cement, which did not appear to have been removed for some considerable time. Some rust and cement were removed from one of the floors, and thickness of iron measured, but there was not much depreciation from its original thickness ( $\frac{3}{8}$  in.).

*Fore and Aft Holds.*

4. All the hull plates, as far as could be seen, were in good condition, but the floors underneath the boarding (which I had partially removed) had a heavy thickness of rust and dirt on them. One floor was cleared of its coating, and a hole punched in it; the wear from original thickness of plate ( $\frac{3}{8}$  in.) was  $1\frac{1}{2}$  in.; one of the floor angle irons showed a wear of  $\frac{3}{8}$  in. from its original thickness ( $\frac{3}{8}$  in.).

*Floors and Angle Irons under Boilers and Engines.*

5. The bottom parts of floors could not be seen for water in the bilge, but a thorough examination was made of all the parts that were accessible. Rust and dirt were as prevalent as in the floors of the holds, but the floors and angle irons, on having a part of their surfaces cleaned, were little worn from their original thicknesses.

*Boilers.*

6. On my inspection of the parts accessible underneath the boilers, I noticed a leak from an apparently newly-made patch on the after boiler itself; this caused me to inquire when the boilers were last examined, and whether any drill or water tests had been made, but no person present could furnish me with any information on the point. If such a procedure has been disregarded, it appeals to me as a serious matter, as the boilers are apparently old.

*Plates removed, Repairs effected, &c.*

7. My attention was drawn to some old plates which were supposed to have been taken from the ship during the recent repairs; but as by Commander-in-Chief's order I have only been called upon to inspect vessels in their present state, I have not expressed an opinion on them.

The recent repairs effected by Mort's Dock and Engineering Co. included forty-five new hull plates, and several frames renewed, keel repaired, new iron work on paddle boxes, bunkers and bulkheads repaired, boilers patched, smoke-boxes repaired, some deck beams renewed, and cargo doors repaired.

*Summary.*

8. The part of the ship inspected is, in my opinion, seaworthy; but I consider it necessary that the rust and dirt should be removed from the floors and angle irons of the holds and boiler-room. As to the ship's complete seaworthiness, I do not feel justified in making a statement unless the ship is placed in dock or on the slip, and the boilers opened for examination.

WILLIAM F. HINCHCLIFF,

Engineer, Royal Navy.

13th September, 1899.

## SURVEY S.S. "NARRABEEN."

Tuesday and Wednesday, 15th and 16th August.

Ship on slip at Mort's Dock.

*Coal Bunker (forward of Boiler-room).*

1. The screen bulkhead, not essential to the vessel's strength, was in bad condition. The plates of hull and angle frames, as far as could be seen (there being coal at the bottom of the bunker) were in good condition. The bottom plates and floors could not be examined. *Boiler-room.*

*Boiler-room.*

2. All the floors underneath the boilers have been entirely renewed by  $\frac{1}{8}$ -in. iron plate in lieu of  $\frac{3}{8}$ -in. steel plate removed. The old angle irons were not removed, being in good condition. Five of the hull plates, which were removed to enable three patches on the circumferential seams of each boiler to be made, have been renewed. My special attention was drawn to the old plates and floors removed; but as they were not in the vessel at the time of inspection, I have not stated their condition.

*Bulwarks.*

$\frac{3}{8}$ in. thick.	F
$\frac{3}{8}$ in. thick for 50 ft. amidships, remainder $\frac{1}{4}$ in. thick.	E
$\frac{1}{2}$ in. thick.	D
$\frac{5}{8}$ in. thick.	C
$\frac{1}{2}$ in. thick.	B
$\frac{3}{8}$ in. thick.	A

Adjoining is an extended elevation of side of ship showing bottom and side plating from garboard strake to bulwarks. The thicknesses of plates given are those when ship was new.

*Keel.*

Several of the hull plates abreast of boilers in the strakes C and D are badly pitted, and will require a further examination in six months' time. A hole was drilled in one plate abreast the boiler-room, in strake D, on both sides of the ship, and a thickness of  $\frac{1}{8}$  in. was obtained, which showed a wear of  $\frac{1}{8}$  in. from original thickness. The plate of after boiler-bearer, port side, was badly deteriorated, and requires immediate repair. The others are pitted, and will require to be thoroughly examined in six months' time.

*Engine-room.*

3. The plate of starboard support of main condenser was in bad condition, and requires renewal, as there was no appreciable thickness on plate being drilled. The other support and angle irons of both were in good condition. The boarding was removed in engine-room for the inspection of the floors, angle irons, and bottom plates, which were covered with a coating of cement. I caused some of the cement, which had an old appearance, to be removed from one of the floors, and a hole drilled, but no sign of wear was discernible.

*Fore and Aft Compartments.*

4. The bottom plates and bottom parts of floors were covered with a new cement. The angle irons and parts accessible were in good condition.

*Deck Beams, Stringers, Bulkheads.*

5. These were all in good condition fore and aft of the ship (excepting the one mentioned).

*Paddle-boxes, Floats, and Shafts.*

6. The above were closely examined and found in good condition.

*Boilers (two in number.)*

7. All parts internally were examined, and were found clean and in excellent condition, there being no signs of pitting or corrosion. The three patches have been well fitted to the circumferential seams on each boiler, but the boilers should have been subjected to a water-pressure test to prove the tightness of these patches—only the bottoms of the boilers could be examined externally, as they were lagged for three-quarters of their circumferences at the top.

*Hull—External.*

8. The plates fore and aft were in fairly good condition, excepting those in strakes C and D, especially those abreast the boilers, as mentioned in boiler-room inspection, which are badly pitted, and will require a thorough examination in six months' time. The big pits on the outside have been filled with a composition to arrest further decay. Two external patches have been fitted in the strake C in the vicinity of the "blow-off" cocks from boilers (one port and one starboard). A hole was drilled through the part of plate on which patch is fitted on the starboard side, which showed a diminution in thickness of  $\frac{3}{8}$  in. full from original thickness ( $\frac{1}{8}$  in.).

No zinc protectors were fitted to the blow-off cocks to prevent decay of plate in that region.

Another

Another external patch has been fitted aft of the one mentioned on the starboard side and in strake D. A hole was drilled through the plate on the other part to which the patch is fitted, and showed a wear of  $\frac{1}{8}$  in. full from its original thickness ( $\frac{1}{4}$  in.).

*Repairs, &c.*

9. Mort's Dock and Engineering Company in their recent repairs to the vessel renewed three plates in A (two port and one starboard); five plates in B (three starboard and two port); renewed floors under boilers; and fitted others with new reverse bars.

*Summary.*

10. The ship at present is seaworthy, in my opinion, for harbour service (her traffic being between Manly and Sydney) for a period of six months, when she should be subjected to a careful examination of the defective parts mentioned.

WILLIAM F. HINCHCLIFF,  
Engineer, Royal Navy.

13th September, 1899.

1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

GOVERNMENT DOCKING ESTABLISHMENT, BILOELA.  
(RETURN RESPECTING.)

*Printed under No. 13 Report from Printing Committee, 12 December, 1899.*

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 25th October, 1899, That there be laid upon the Table of this House,—

“The Report of the Sub-Committee, consisting of Messrs. Pollock, Cruickshank, and Portus, of the Public Service Board, upon the working of the Government Docking Establishment at Biloele.”

(*Mr. Law.*)

REPORT OF COMMITTEE OF INQUIRY, GOVERNMENT DOCKING ESTABLISHMENT, COCKATOO ISLAND.

To the Members of the Public Service Board, Sydney.

Gentlemen,

January, 1899.

1. We, the Committee appointed to inquire into the working of the Government Docking Establishment at Cockatoo Island, have the honor to submit the following Report :—

2. The Committee has held twenty-one meetings, and examined thirty-one witnesses, comprising all the officers holding responsible positions at the Establishment, a number of representative workmen, prominent officers of the Public Works Department who exercise control of the management of the Dock Establishment, and Government Contractors who supply the bulk of the stores and materials used there.

3. Before dealing generally with the many subjects which have arisen in the course of our inquiries, we purpose answering specifically and concisely each of the questions definitely submitted for our consideration in the list of instructions furnished to us at the commencement of the inquiry.

The questions, with our answers, are as follow :—

Q. 1. Are the officers at present employed competent or otherwise ?

A. They are competent and steady.

Q. 2. Is the staff sufficient, insufficient, or excessive, having in view proper and economical supervision ?

A. The staff of officers is insufficient.

Q.

- Q. 3. Are the rates of remuneration paid to the officers commensurate or not with the duties which they are called upon to perform ?
- A. (a) The Committee consider that the salary paid to the Manager is not at all commensurate with his duties and responsibilities.
- (b) Having in view the responsibilities of the respective positions of Foreman Engineer and Foreman Boilermaker, and the very large increase in the work of these two officers, the Committee recommend for the consideration of the Public Service Board the question of restoring their salaries to what they were before the 10 per cent. reduction in 1893.
- (c) In consideration of the large amount of responsible work devolving on the Storekeeper in addition to and apart from his duties as responsible officer in charge of stores, the Committee recommend that his salary be increased.
- (d) The rates of remuneration paid to the remainder of the officers on the permanent staff are commensurate with the duties they are called upon to perform.
- Q. 4. Are the rates of wages paid to the workmen in accordance with the current rates of their respective trades ?
- A. Yes; but in addition the men are paid for all public holidays and are entitled to accident pay. (See page 34.)
- Q. 5. Is a sufficient number of men put on to efficiently and economically perform the work required ?
- A. The number of men employed is sufficient to do the work, but not with economy, as the limited number of machines causes a large amount of overtime.
- Q. 6. What system is adopted in the taking on and discharge of men, and is the Superintendent left sufficiently untrammelled in this particular ?
- A. The Manager (Superintendent) has full power to take on and discharge men as the exigencies of the work may require. He is untrammelled in this respect and in the management of the men.
- Q. 7. Is the system adopted in keeping and checking the time of the men an efficient one ?
- A. It is very efficient.
- Q. 8. What system is adopted in regard to the engagement of apprentices, and what improvement can be suggested therein, if any ?
- A. No officially recognised system is adopted in regard to the engagement of apprentices. The Committee recommend that a slight alteration on the system now in force in the Railway Department be adopted, but that the rates of wages at present paid to apprentices at the Docks, which only slightly differ from those ruling in the Railway Department, be adopted. (See par. 102 of this Report for details.)
- Q. 9. Are the arrangements at present in force for the quick supply of needed stores and material the best that can be adopted ?
- A. Certainly not.
- Q. 10. Are the stores supplied of good quality, and the rates paid therefor reasonable ?
- A. The stores *accepted* by the officers are of good quality, and the rates paid are reasonable. A small percentage only of deliveries is returned.
- Q. 11. Is a sufficient check kept on the use of the stores so as to ensure economical consumption and the avoidance of waste ?
- A. Yes, a very good check.

- Q. 12. (a) Is the supply of tools, implements, machinery, slips, &c., sufficient for the working of the Establishment;  
 (b) If not, in what particular is the supply deficient; and  
 (c) Might not night-work be largely curtailed by better arrangements as regards such plant, and in other ways?

- A. (a) No;  
 (b) See paragraph No. 62 of this Report;  
 (c) Yes.

- Q. 13. (a) Is the whole Establishment conducted in such a manner as to ensure the best results to the State being obtained;  
 (b) If not, what measures are necessary to bring about this desirable end?

- A. The answer to this question, containing, as it does, the crux of the whole inquiry, has received due consideration. We find that the Establishment is not conducted in such a manner as to ensure the best results to the State being obtained.

- (b) See paragraph No. 40 for the Committee's opinion as to what measures are necessary in order that better results may be obtained.

4. Having replied to the particular questions we were asked to answer, we have now to deal generally with the evidence placed before us, and the conclusions we have come to after carefully considering it.

5. In the course of our investigation it has been brought home to us that there are serious defects in the system of management. Chief among them are:—

- I. Delay in the supply of stores and material.
- II. Unbusinesslike method of account-keeping.
- III. Over-control of the management of the Docking Establishment by Head Office.
- IV. Inadequate supervision of the workmen,
- V. Mechanical draftsman required; also a diver.
- VI. Insufficient provision of machine tools.
- VII. Necessity for appliances for lifting heavy weights from vessels when in dock.
- VIII. Necessity for the provision of a slip.
- IX. Defective condition of the pumping machinery.
- X. Insufficient fire-extinguishing appliances.

6. Other matters of a general nature have arisen, upon which we also report. They are:—

- XI. Workshop extension and tramway.
- XII. Docking men-of-war, &c.
- XIII. Charges for the use of tools, &c.
- XIV. Apprentices.
- XV. The workmen and their requests.
- XVI. Complaint against Mr. J. Pratt, Dockmaster.
- XVII. Statements of Mr. J. Hoey regarding the foremen.

We will now deal with these in their order:—

#### I.—DELAY IN THE SUPPLY OF STORES.

7. The system now in vogue for obtaining stores and materials from the Contractors is very unsatisfactory. When an article is required by a workman for the job he is engaged at he applies to his foreman, who sends a labourer with a docket for it to the store. If the article is not in the store a requisition is prepared, and sent to the Manager for signature. From the Manager the requisition is sent to Head Office for approval by the Engineer-in-Chief and other officers, and is referred after that to the Accountant, who eventually issues the order on the Contractor. The evidence given to us shows that this process never takes less than two days, and frequently much longer. Mr. Darley states that he has himself traced fourteen operations in the hands of different officers through which requisitions have to pass; that the system is altogether too cumbrous; and is such that if a private firm attempted to work with it they could not carry on.



8. When the official order for the goods has been signed by the Accountant it is despatched to the Contractors, who then furnish the goods if they have them; but it not infrequently happens that the particular article ordered cannot be obtained in the local market, when inquiries have to be made as to what is obtainable most nearly approaching what is required, and the requisition must be returned to the Accountant and altered by him before the Contractor can deliver the goods at Cockatoo Island. Bearing this in mind it is easy to believe that the statements made in evidence that long delays have occurred are perfectly true.

9. It would appear, however, that the above rules for obtaining supplies have been frequently departed from by individual officers on their own responsibility and at their own risk in order that the work of the Establishment might not be absolutely at a stand-still. It has been found necessary to order goods verbally from Contractors, promising that official orders would follow; and by these means goods urgently required have been landed and used at the works before the requisitions have been dealt with by Head Office. Under the circumstances the officers referred to had practically no option.

10. We think sufficient consideration has not been given in the past to the fact that a large amount of the work carried out at the Docking Establishment consists of repairs to steamers and dredge plant, and that for this work it is impossible to foresee what will be required. If the officers have a specification for a new piece of work (such as the construction of a new launch) before them, they can order beforehand exactly what they will need, but in repairing a boat or engine no one can tell until it is pulled to pieces what will be necessary in order to effect proper repairs, and when it is in pieces the materials are wanted at once in order that those repairs may be carried out.

11. In the evidence given by Mr. Hoey, the predecessor of the present Manager, he distinctly states that he was allowed freedom, almost amounting to license, in respect to obtaining the stores required for the work, and that there were no delays. The present system seems to us to be a departure to the other extreme.

12. We quote below extracts from the evidence on this subject:—

The Manager of the Establishment stated:—

The delay in getting stores is mainly due to the circumlocutory way the whole business has to go through. I send a requisition to Head Office and it goes from one to another and from one to another, and time is lost that way. Not only is time lost, but it costs more. (P. 28.)

The Foreman Engineer said:—

They are not allowed to get anything now without an order from Head Office. . . . I often ask Buddle to get it (an article requisitioned for) up next day. He does so, but is not supposed to without the order.

Sometimes we have waited as much as a week or a fortnight for a few bolts or for a special iron that we wanted. . . . Whatever we order in the way of cocks, valves, &c., we have to wait a fortnight for always. (P. 41.)

The Store Clerk (Buddle) said:—

The Contractors very seldom have what we want in stock (timber). I have to wait then until they have had sufficient time to get it from the bush.

Yesterday I was asked to get some 2½ half-round iron, and I got it yesterday. In that case the iron was here almost before the order left the office. I know it is against the rules, but the job must be done. (P. 44.)

If the orders could be issued from the Works and signed by Mr. Broad we could get the goods much quicker, and I would not have to break any rules. . . . If orders were carried out strictly the work would be stopped in many cases. . . . It usually takes three or four days for the orders to go through the Head Office. (P. 44.)

The "Thetis" was here the other day. She was coming up the Harbour and a tube burst. They rang me up from the Island to get a tube for her; the tube was put in and the boat was at work the next morning. She would have been there for days if I had waited for the order. . . . This practice on my part has never been questioned. . . . They do not know anything. . . . I have to chance something. (P. 44.)

The Inspecting Engineer (Fulton) said:—

If we could get the order direct from Mr. Broad, then, if they (the Contractors) had not got the thing, it could be made before the official order was through. There is a lot of time lost that way. It would be better still if we could get the official order straight from Mr. Broad. I have to take things on my own hands and take the risk. I use my own common sense, but I am aware that I am breaking the Regulations. (P. 45.)

The

The Foreman Boilermaker said:—

I have very often a difficulty in getting material. Sometimes it is a month from the time I order to the time when I get it. I have waited a week for a plate for a job that would only take two or three days to do. . . . Very often Mr. Buddle goes and gets me a plate without the order, but that is against the rules. It is the same if I want a set of tubes. I have to wait. I take the men away from the job and put them to something else. I do not think half enough stock is kept here. (P. 46.)

The Storekeeper, Cockatoo Island, said:—

We always have a poor stock. . . . It takes about a week to get a requisition through. . . . The people in Head Office must trust to us who send the order as to whether the goods are required. I think it would be as well if we could send the order to the Contractor direct from here, and send a duplicate to Head Office, who could charge it to the different Votes just the same. The stuff would be here, and we could be using it while they were passing it from one to the other. (Pp. 50, 51.)

I think a lot of delay could be obviated if an indent were sent Home and a stock kept of sizes of plates that we cannot ordinarily obtain here. . . . I do not know what we should do were it not for Buddle coming up here every day. When we want anything he gets it without the official order. . . . The Regulations have to be a dead letter; they are unworkable. The work would be simply at a standstill if we had to wait always for an official order. (P. 51.)

I do not think there is any chance of these delays getting better under the present system. (P. 52.)

The Accountant, Public Works Department, said:—

When you ask, "Why should not the officers here order what they want direct?" you raise a very large question. That would require a complete change in the policy of the Harbours and Rivers Department. . . . We trust entirely to the man here who sends the order as to whether it is really needed. (P. 56.)

Mr. Broad originates those orders, Mr. Portus approves, and Mr. Napier and Mr. Carleton; then it would come to me for order; the order clerk would prepare it, I would sign it, and then it would be issued. I do not think it is necessary for it to go through all these hands. I think Mr. A. B. Portus' approval would be quite sufficient. (P. 57.)

I do not think there should be any difficulty in the way of money being voted to provide a sufficiency of stock there, both of plates and timber. It is simply a question of whether the Minister would approve of an increased Vote. (P. 58.)

The Engineer-in-Chief, Public Works Department, said:—

Mr. Broad has been complaining very much to me about the delays experienced in the present system of getting stores. Formerly all orders for stores were invariably in the Contractors' hands within twenty-four hours of the time they were written at the Dock. . . . Now I do not think they ever reach the Contractors' hands under three days. A complete change was made in passing all stores through the Accountant. It was done while I was away from the Department. They have reorganised and rearranged to an extent which has made everything most laborious and burdensome, but it is quite inevitable that a change must be brought about. The present system has proved itself an utter failure in my opinion. . . . If they (the officers) have a complaint to make (about delays) they must make it through the Accountant. That must be altered, and I must know when delays are taking place. I have been rather slow to move in the past, because I wanted to give the new system every chance. (P. 72.)

I have been told that now there are further changes in contemplation on account of the new Stores Board, which, I am afraid, will lead to still further delay if the contemplated action is taken.

Of course, it would facilitate matters if the Superintendent could order straight from the Dock, but I think the Department ought to exercise some control over the orders. . . . For years I have been trying to impress upon the officer up there that the store is simply to keep a stock to supply immediate requirements, not to carry a big stock for two or three months' supply. I hold that the bulk store should be in the Contractors' yards. (P. 72.)

I was told that these documents (requisitions) pass through twenty operations from the time when Mr. Broad says, "I want such and such a thing," until it reaches the Contractor. I have traced it through fourteen operations myself. (P. 74.)

It seems to me there are too many branches under the Accountant's control, and we cannot get on with our work. There is too much referring, too much red tape. If a private firm attempted to work with our present system they could not carry on.

It would be contrary to the practice of the Department for Mr. Broad to order direct. (P. 74.)

Personally, I would not mind Mr. Broad ordering the stores direct. He manages the works uncommonly well, and is a most desirable officer; but we might get a man in whom I would not have confidence. . . . All urgent things I believe the Manager ought to order. I would give him power to order anything he urgently needed from the importers. (P. 74.)

I have nothing to say in favour of the present system of rendering the accounts or obtaining stores. Some radical change is wanted. (P. 76.)

The ex-Superintendent of the Docking Establishment stated:—

If I wanted anything I could get it. If I had not had *carte blanche* it would have been impossible to carry on. (P. 80.)

I had the power, and any departure from that is a mistake. It is wasteful. (P. 80.)

I had freedom almost amounting to license. I was allowed to exercise my judgment in almost everything. (P. 80.)

I had no reason to complain of delay. (P. 80.)

13. In order to remove all cause of delay in obtaining stores in future, the Committee recommend that the Manager of the Docking Establishment be given full power to order all stores required from Contractors, forwarding at the same time a duplicate of the order to the Head Office to note in connection with the payment of the Contractors' accounts. The Manager would then be in a position to obtain whatever he required with the minimum expenditure of time, and a great deal of clerical labour would be saved.

14. It has been recommended by a number of the officers that a larger stock should be kept in the store at the Docking Establishment; but the policy of the Department, as expressed by the Engineer-in-Chief, is that the Contractors should keep the stock for the Government, and that the stock in the Government store should be kept as low as possible. The Contractors, however, say that [they cannot be expected to lay in a large stock of goods when the contract is only for a period of six months, for by the time they could get in a fairly large quantity of goods the contract would have expired, and they would probably have the goods left on their hands.

15. If the present Departmental policy of keeping the stock in the Government store as low as possible be adhered to, the Committee consider that the contracts should not be less in duration than twelve months, and, if practicable, for a much longer period; but they are of opinion that, in view of the largely increased amount of work that is being done and is likely to be done in the future at the Docking Establishment, the stock might be increased with advantage, especially as regards special sizes of material.

16. While on this subject we desire to state that we think the old conditions of contract were very one-sided, the Contractors having no right of appeal from the decisions of the Departmental officers. We understand, however, that in the new Public Service Tender Board Regulations this defect has been remedied.

17. There have been long-continued delays in the supply of timber required for use in both new work and repairs; and although we have had evidence from a representative of the Contractors, the delays have not been satisfactorily explained.

18. We quote hereunder a few portions of the evidence on this subject:—

The Accountant, Public Works Department, said:—

The main difficulty lies with the timber and iron plates. It does not seem to matter what annual Contractor the Department has, we are always lauded in difficulties with the timber, and there seems to be no merchant that can stock the sizes of iron plates that are demanded. (P. 56.)

The Manager of the Docking Establishment said:—

What is conspicuously the worst thing about the place is the delay in the supply of timber. (P. 28.)

The Foreman Shipwright and Dockmaster said:—

The following timber was requisitioned for on 25th June, 1898. . . . I have not seen it yet. (14th November, 1898.) . . . On the 18th July, 1898, I ordered 5,000 ft. of 5 x 2½ kauri decking, and that has not arrived yet. . . . They tell me I am not to keep a stock of timber here. It must be in the Contractors' yard. Well, here is the result. . . . I want two pieces (of hardwood) for the "Powerful," and I cannot get the stern frame up without them. We are just simply playing with the job as we are going on now, putting men on and off as the timber arrives. We have a good-sized store, but there is not sufficient in it. This difficulty in not being able to get stock applies to most of my work. It appears to me to be getting worse. (P. 36.)

I think the General Superintendent ought to have power to send straight to the Contractor for the timber. There is too much paper work. The timber wants seasoning, and that is the reason we should have it here, and proper sheds to put it in. The proper thing for these keels would be to get the timber here in log and cut it. Give me a proper breaking-down saw and the machinery. I want a planing-machine, too. (P. 38.)

Mort's Dock had to get their own breaking-down saw and cut their own logs. If they wanted a piece of timber of a big size they could not get it. They have their own logs, and they can get any size of timber they want within two hours. We should have it too. (P. 39.)

The Store Clerk said:—

There have been great delays in supplying timber. (P. 44.)

Messrs.

Messrs. Goodlet and Smith's representative :—

No one can keep a stock of timber that will suit for supplying orders directly unless they are small sizes. Large sizes, such as are generally wanted at Cockatoo, we have to send to the bush for. . . . The contract is only for six months, and in consequence of that you cannot make a proper arrangement, because you do not know whether you will get it for the next six months. Sometimes we may get an order at the beginning of the contract and not get it filled by the end of the contract. (P. 69.)

19. The Committee have considered the evidence, and have come to the conclusion that the best way to obviate further inconvenience and expense from this cause is to keep a stock of logs at the establishment, obtain a breaking-down saw, a four-headed planer, and other necessary wood-working plant, with which the material could be cut and prepared as required. If this be done a stock of seasoned timber of special sizes will always be available.

## II.—UNBUSINESSLIKE METHOD OF ACCOUNT-KEEPING.

20. It appears to be the policy of the Public Works Department that the Accounts of the Docking Establishment shall be kept as far as possible at the Head Office under the direct supervision of the Public Works Accountant.

21. The system is this : The foreman notes the time each man is on each job and furnishes this to the Timekeeper, who checks it with the times of arrival and departure of each man as taken by him, and debits it in a dissection book to each job, specifying, in the case of a vessel, whether the work is done to hull, machinery, or boiler, and in other cases giving whatever details are necessary.

22. When stores are required the foreman specifies on the docket the job they are for, and also whether for hull, machinery, or boilers, as with the men's time. The store dockets are entered (for store purposes only) in a stock ledger at the Docking Establishment.

23. After each fortnightly pay the dissections of the pay-sheets are forwarded to Head Office, where accounts for each job are made out against each department for the workmen's time, *but a lump sum only is given*, and not the details of the time each class of men was engaged on the job.

24. Once in each month the store dockets are sent to Head Office, where they are again entered in a stock ledger, the values of the articles are placed on them, and debits are made against the various departments for the materials used on their work. The accounts for these stores are furnished to the debtors monthly, the lump sum only being shown until quite lately, but the detailed items are now given.

25. From the above it will be seen that, for a job lasting three months, as many as nine separate accounts are furnished, some for wages only, others for stores only, and there is no indication on the vouchers of what the total cost will be.

26. In many cases when goods are not in stock they have to be requisitioned for, and are then ordered direct for the job, not going through the store or store books at all. In these cases, when the Contractors send in their vouchers, the vouchers themselves, after being checked by officials at the Dock, are sent by the Public Works Department to the Department for which the work is being done for payment. Should the Contractor neglect to send in his voucher for a time, accounts may come in perhaps a couple of months after the jobs are complete and all other accounts paid.

27. We append a few excerpts from the evidence regarding this matter, the opinions of all the witnesses who were questioned on the subject being adverse to the present system.

The Manager of the Docking Establishment said :—

My opinion is that the accounts should be sent in when the jobs are finished, except where it is a very large work, and then they should be sent in in periods. (P. 28.)

The Accountant, Public Works Department (after detailing the present method of dealing with accounts), said :—

That did not seem to me to be a satisfactory way of doing it. I thought there ought to be one account for the one job. . . . In rendering an account we give the wages for a fixed period. We do not give the time that each particular class of men was on the job. It is generally a lump sum. For material

material there is more detail given; for, say John Keep and Sons supply material for a Marine Board launch, the voucher for that material would go to the Marine Board, and they would see the full particulars. We give full detail for material taken out of the stores. (P. 56.)

So far as I am concerned, I cannot alter the system. I have made an effort, but failed. I cannot break through the Government Regulations. . . . I made this effort because of my experience of the imperfections of the system. *I knew it was wrong and unsatisfactory.* (P. 58.)

The other Departments are so slow in paying that my accounts are crippled. I pay in hard cash and must get cash back, or else my advance account gets tied up. . . . I have an advance account from which I pay the wages right away. In those wages there are amounts for work done for other Departments, and I have to recover from them the amounts I pay for them so as to recoup my cash. I send the voucher on a week afterwards, but it may be a month afterwards before I get it back. (P. 58.)

The Engineer-in-Chief of Public Works (in reply to a statement by Mr. Cruickshank that "the accounts are made out in such a way that nobody can understand them and nobody would sign them") said:—

I know that has been a sore point for a long time. Complaints have reached me, indirectly, from you and from other Departments that we have worked for that they get their vouchers piecemeal.

As long as twenty-five years ago I complained about the same thing myself when I was in charge of works in the Newcastle District. I complained that I never could find out what any particular thing cost. From that day to this it has been a sore point.

There is a difficulty in the way of rendering these accounts monthly on account of the store issues being so much behind. If we had a bigger staff we could do it. The store issues are always two or three months behind in balancing. I have nothing to say in favour of the present system of rendering accounts or obtaining stores. *Some radical change is wanted.* It seems to me it would be a very simple thing to have a prime-cost clerk up there to make out the vouchers from the paysheets and from the store account, and make up the account the day the job leaves the works. (P. 76.)

28. Seeing this unsatisfactory state of affairs, both the Engineer-in-Chief for Public Works and the Accountant have attempted to remedy it. Their narratives of these efforts are as follow:—

The Engineer-in-Chief said:—

I made a recommendation last year that we should have a special Vote to charge all these jobs to, so as to enable us to get the money to pay them until the whole of the accounts could be brought together, and then one account could be sent. . . . We get a £5,000 Trust Account to charge everything to, instead of sending vouchers on to-day and to-morrow and the next day; and then, when everything was complete we proposed to send in one account. We commenced on that, and then the Auditor-General stepped in and closed it. (P. 76.)

The Accountant said:—

I thought there ought to be one account for the one job, and for that purpose we got £5,000 voted, and we asked the Treasury to transfer it to a Trust Fund so that we might operate upon it. That was no sooner done than the Auditor-General objected, and would not allow it, so we put the money back into the Treasury.

I intended that to be operated on in the same way as the Dock £7,000 for Stores. The Auditor-General had some technical legal objections to treating loan moneys as Trust Funds, so that we were forced back upon the old system of rendering accounts piecemeal against each Department, just as the vouchers happen to come in. (P. 56.)

If the Auditor-General had not prevented my using that Vote of £5,000 for "Services of Other Departments" I would have been able to render the accounts very much like Mort's accounts are rendered. We would have been able to give very full particulars. We cannot do it now because we have no capital to work on.

I went over and interviewed the Auditor-General, and his objection is to placing this money to the credit of a Trust Fund at all. (P. 58.)

29. Upon this evidence the Committee have come to the conclusion that the accounts are complicated to an unusual degree, and that there is no necessity for this:

30. The evidence given shows further that a large amount of time is wasted by having the accounts kept at the Head Office; and, from an inspection of copies of accounts furnished for work performed, the Committee consider them most unsatisfactory, they being such that no Superintending Engineer in a private firm would certify to them.

31. From a further careful consideration of the evidence the Committee have concluded that the present system is impracticable; and they are strongly of opinion that all accounts for work done should be kept at and issued, *in detail*, direct from the Docking Establishment.

32. Mr. Darley's suggestion appears to the Committee to be at once simple and sensible, and we recommend that a sum of money be placed to the credit of the Establishment; that the Manager (subject to periodical approval by the Board of Control, see par. No. 41) have power to draw against this sum for the payment of expenses until the work in hand is finished; that the account be then rendered in commercial fashion, and the amount, when paid, be repayed to the Advance Account. If this method be adopted, we are convinced that the result will be a very material increase in both efficiency and economy.

### III.—OVER-CONTROL OF THE MANAGEMENT OF THE DOCKS BY HEAD OFFICE.

33. In answer to Question No. 13 we have stated it as our opinion that the Establishment is not conducted in such a manner as to ensure the best results to the State being obtained.

34. It has been shown in the evidence that no work can be undertaken without an order from Head Office, and that no stores can be ordered except through Head Office. This has been the cause of great delay to the work, and, therefore, of largely increased cost; in fact, the system is practically unworkable.

35. The Manager of the Establishment has stated (p. 28):—

Sometimes the Marine Board, or another Department—the Asylums—sends up saying, "I want so and so done directly." I have no authority to do that, although I know it is urgent. I must get authority from Head Office.

The Storekeeper stated:—

Another thing that causes delay is that we get boats up here perhaps a week before we get the instructions to do the work. The orders ought to come here before the boat, just the same as if we were a private contractor. . . . There is a punt in there now—the one with a hole knocked through. We have not got any order for it. . . . According to the Regulations we could not put her in dock without an order, but we have. . . . If we strictly carried out the instructions we could not do anything at all. If we stuck to the letter of the law and never did anything without an order I think we would get into worse trouble than we do. (P. 52.)

36. At page 34 of the evidence it will be seen that the cost of public holidays for twelve months is set down at £1,350, and accident pay for the same period is valued at £72 3s. 6d. The overtime paid for at the Docks for the period from 1st November, 1897, to 31st October, 1898, was 21,888 $\frac{3}{4}$  hours, equal to 2,736 days of eight hours, and would cost, at the low rate of 1s. per hour, nearly £1,100. How this overtime is caused will be seen by the following short extracts from the evidence:—

The Manager of the Establishment stated:—

We have worked a little overtime in consequence of not having sufficient machinery, but my great desire is not to have any overtime at all if possible. (P. 26.)

The Foreman Engineer stated:—

We are so short of machines that we must keep the machines going overtime to keep the fitters employed. (P. 39.)

It frequently happens that we have to work overtime on our work to let the warships get into the docks at a certain time, and that adds to the cost of the work. (P. 40.)

The Dockmaster stated:—

The cost of the work is very much increased by the warships sometimes wanting both docks at once, and our having to work overtime on whatever jobs are in so as to get them out for the men-of-war to come in. (P. 37.)

37. In the evidence quoted in Divisions I and II of this Report it will be clearly seen that one of the main reasons why the best results to the State are not secured by the present methods of management is that too much control is exercised by officials at head-quarters.

38. We have given much thought to this subject and to the relative conditions under which mechanical work is carried out at the Fitzroy Dock and at private establishments, and it is apparent to us that the cost at the Government workshops is largely increased by expenditure from which private firms are exempt. Private firms have not to pay workmen for the numerous holidays granted every year, nor are they so liberal to their employees in case of accident. They do not bear the

cost of conveying the men by steamer to and from the workshops; and the cost of work performed is not added to by overtime payments due to insufficient plant, and to having to hurriedly complete vessels so that preferential turns may be given to Her Majesty's ships of war.

39. As it has been decided by the Government that, where possible, all departmental work shall be carried out at the Docking Establishment, this necessarily means a large increase in buildings, shop appliances, tools, &c., and in the number of men employed; hence any loss of time and money under the present system would be intensified and multiplied.

40. To ensure the maximum of efficiency with the minimum of expense the works should be self-contained, and the Manager should have power to do anything, or order anything that might be required. The Docking Establishment should, in a practical sense, be a separate department, under the control of a manager, who, as in private firms, would be responsible to a Board of Control, which Board would be directly responsible to the Minister.

41. We would suggest that the above Board should consist of three gentlemen, viz., the Engineer-in-Chief (as president), a competent experienced marine engineer, and a good commercial man, to whom the Manager would have to give an account of his stewardship in similar fashion to the practice in Mort's and other firms, where the Directors meet their managers weekly and transact all necessary business.

42. One of the most important items to be remembered is that the Government Docking Establishment is essentially a Mechanical Engineering Establishment, and also that a very large proportion of the work is of a marine character. We quite recognise the Engineer-in-Chief's reputation and ability as a Civil Engineer; but from the evidence, and from our own observations, we are convinced that what is really wanted is not civil, but high-class mechanical knowledge and marine experience to ensure reliable and economical working. Our opinion, therefore, is that if a Board of Control be appointed as suggested, it would be the most efficient method of ensuring the best results to the State being obtained.

#### IV.—INADEQUATE SUPERVISION OF THE WORKMEN.

43. In Division No. III we have drawn attention to the disadvantages under which the Docking Establishment is carried on. Subjected to these disadvantages it is imperative that the most vigilant supervision should obtain in every branch of the works. It will be seen by the return of the workmen employed at the present time (p. 30) that—

The Foreman Engineer has the oversight of—

48 Fitters	11 Apprentices
3 Machinists	5 Improvers
11 Blacksmiths	2 Plumbers
14 Blacksmiths' Strikers	2 Electricians
2 Shop-boys	1 Furnaceman
2 Moulders	1 Fireman
2 Coppersmiths	—
3 Drillers	Total 128
21 Fitters' Labourers	

44. The Foreman Boilermaker supervises—

30 Boilermakers	1 Engineer
45 Boilermakers' Labourers	1 Blacksmith
14 Shop-boys	—
5 Apprentices	Total 96

45. And the Foreman Shipwright and Dockmaster has the supervision of—

25 Shipwrights	1 Sawyer
19 Shipwrights' Labourers	2 Painters
5 Joiners	—
1 Boat-builder	Total 53

46.

46. These Foremen have to supervise not only the work done in the shops but also many outside jobs at widely separated parts of the Island. This circumstance has rendered it necessary to have additional supervision so that proper oversight of all the men might be secured. Each of the Foremen has, therefore, a man who is actually a working assistant foreman to help in the supervision of the men; but these working foremen are not recognised as such by the Department, being on the temporary staff; and, as two of them receive no higher pay than the highest of the men they supervise, and the third only 1s. per day higher, their authority is much weaker than it should be.

47. We find that the Foreman Engineer is very much overworked, he having, in addition to the oversight of the different classes of workmen, to do a lot of work which should properly be performed by a Mechanical Draftsman, making scale and full-size sketches for the engineers, blacksmiths, and others to work to.

48. Having given this matter very careful consideration, and having compared the methods of supervision at the Government Docking Establishment with those of privately-owned works, the Committee strongly recommend that the staff of Foremen be strengthened in the manner indicated herein.

49. Assisting the Foreman Engineer in the supervision of the engineers, fitters, &c., is Mr. Stewart, in receipt of 11s. per day, who, as previously stated, is not on the permanent staff. The Committee recommend that he be permanently appointed as Assistant Foreman Engineer at £187 4s. per annum (equivalent to 12s. per day of fifty-two weeks of six days).

50. In the pattern shop, nominally under the Foreman Engineer, supervision is exercised by Mr. Kidd, called Foreman Patternmaker, and paid 13s. 4d. per day, but treated as an ordinary workman, and on the temporary staff. It will be seen by the evidence that Mr. Kidd also performs work outside his ordinary duties, he having frequently to make scale and full-size drawings for use by workmen other than patternmakers, and having to give estimates of the weight of all castings which it is proposed to order from the Contractors. We recommend that Mr. Kidd, who is a most efficient officer, performing professional work, be permanently appointed Working Foreman Patternmaker, at a salary of £234 per annum (15s. per day).

51. The Moulding Shop, supervised by the Foreman Engineer, and furnishing employment for sometimes four and sometimes five men, is in charge of a Mr. Nell, styled Foreman Moulder, but paid the rate of an ordinary working moulder (11s. per day) and on the temporary staff. This department is, at present, small, but it is intended to be greatly expanded in the near future, when more hands will necessarily be employed in it. The Committee, therefore, recommend that, for the time being, Mr. Nell be recognised as Working Foreman Moulder, under the Foreman Engineer, and that he be paid £187 4s. per annum (12s. per day).

52. The Blacksmiths' Shop was formerly in the charge of a Foreman Blacksmith, at £275 a year, but on his being retired his salary was saved by placing the shop under the Foreman Engineer. In the absence of that officer in other parts of the Establishment there is no person authorised to take charge of the work. The Foreman Engineer depends on some of the older hands to see that things go right and to report to him, but these men have no authority over their fellow-workmen. The Committee consider that this is an unsatisfactory arrangement, and recommend that Mr. McCulloch, the leading hand, receiving 12s. per day, be appointed permanently as Working Foreman Blacksmith at £218 8s. per annum (14s. per day).

53. The Foreman Boilermaker is assisted by a Mr. Anderson at 12s. 6d. per day, but the position is not recognised by the Department. The Committee think that such assistance is necessary, and recommend that Mr. Anderson be permanently appointed Working Assistant Foreman Boilermaker at £202 16s. per annum (13s. per day).

54. The Foreman Shipwright's Assistant is Mr. Castle, who is in receipt of 10s. per day on new work and 12s. per day on old, and is on the temporary staff. It will be readily seen that, as the Foreman Shipwright is also Dockmaster, and has therefore to be absent from the Carpenter's Shop whenever vessels require to be either docked



docked or undocked, it is imperative that some person should be placed in authority over the workmen at such times. The Committee therefore suggest that Mr. Castle be placed on the permanent staff as Working Assistant Foreman Shipwright at £187 4s. per annum (12s. per day), whether on new work or old.

55. In addition to the workmen engaged under the three principal Foremen, in the Engineering, Boilermaking, and Carpentering Shops, there is a gang of labourers employed in performing the casual work of the Island, quarrying space for new workshops, shifting heavy weights wherever required, and generally in improving the premises. These men are in charge of a Mr. Godden, called the Foreman Labourer, who is directly responsible to the Manager. He receives 10s. per day, and is on the temporary staff. The Committee recommend that he be appointed Working Foreman Labourer at £187 4s. per annum (12s. per day) and be placed on the permanent staff.

56. Regarding the suggested Working Assistant Foremen (Mr. Kidd, Mr. McCulloch, Mr. Stewart, Mr. Godden, Mr. Anderson, Mr. Nell, and Mr. Castle), we are of opinion that they should be paid for overtime (but only for the actual time worked), and should be entitled to annual leave, this being the present practice in the Dredge Service.

57. It has been previously pointed out that many of the repairs carried out at the Docking Establishment are effected outside of and away from the workshops, on board the vessels requiring them. This renders the continuous supervision of the men engaged on the work by their respective Foremen a matter of impossibility. We therefore suggest that where such work is of any magnitude the Manager be authorised, at his discretion, to place leading hands in charge of such jobs, as in private works, paying them 1s. per day extra while so in charge.

58. Portions of the evidence bearing on this subject are quoted hereunder :—

The Manager of the Establishment stated :—

I do not think the supervision of the fitters and turners is efficient. Gibson has a good deal of running about to do. If there are ten or a dozen ships here he has to go to every one of them, and during that time the men in the shops will talk a good deal and idle. (P. 29.)

The Foreman Engineer said :—

I have an assistant named Stewart. He attends to the work outside. . . . It is impossible for me to look after these men. . . . Since Mr. Kidd was brought here he has always done duty as a Foreman, although he has never been made a Foreman. . . . He was selected as the best man in New South Wales. . . . I have always left it (the pattern shop) in his charge. . . . Stewart is not acknowledged as a Foreman. . . . He gets a shilling a day extra. I do not think it is enough. (P. 39.)

When I am busy I have three or four first-class men whom I take and point out to them what work has to be done, and tell them I expect them to look after the work and do their best. They are leading hands, but do not get anything extra for it. (P. 39.)

I have a man supervising the coppersmith work named Vale. He gets nothing extra for it. I do not think that is a sufficient inducement. (P. 40.)

I am here every morning long before six o'clock. . . . I have too much to do. I have had blacksmith's work to supervise for the last thirteen years. . . . I have no leading blacksmith. (P. 40.) The blacksmiths have done an immense amount of overtime. It would assist me if some responsible men were placed over them and the coppersmiths and others. (P. 40.)

The Inspecting Engineer stated :—

I do not think the supervision here is so good as at Mort's Dock. (P. 45.)

Mr. R. McCulloch, Blacksmith's Representative, said :—

There are thirty-two men in our shop. . . . There is no supervision over them except by Mr. Gibson. (P. 60.) . . . I have no hesitation in saying there should be a practical man in charge of that shop. (P. 61.)

Mr. Kidd, acting as Foreman Patternmaker, stated :—

I have been six and a-half years in charge of the patternmakers. . . . Mr. Gibson is supposed to be foreman, but he has never interfered. (P. 62.)

It would be to the benefit of the works if there were more supervision. . . . When a man is placed in charge of work it is an encouragement to him to do the best he can for the Department—when he feels his work is recognised. (P. 62.)

Mr. Stewart, Assistant to Foreman Engineer, said :—

We have not got a leading hand on the place. I think we should have. (P. 64.) I am practically second foreman in the shop, but I am not recognised or paid as such. (P. 64.)

The

The Engineer-in-Chief for Public Works said :—

I think the Foreman Engineer needs some assistant foremen. . . . The work has grown very rapidly of late, and, perhaps, we have not kept up with it. . . . In my opinion we want more supervision. . . . I believe it will pay for itself. (P. 73.)

The Dredge-master, Sydney, said :—

I think there needs to be more supervision over the men working there. . . . There should be a leading hand in charge of all jobs where two or three men are employed. (P. 76.)

The ex-Superintendent of the Docks said :—

If I had thirty men in a blacksmith's shop I would have a foreman over them. . . . I would give him a little more money. . . . I think the system of having perhaps two or three leading hands and not acknowledging them is very bad. (P. 82.)

#### V.—MECHANICAL DRAFTSMAN REQUIRED; ALSO A DIVER.

59. In the course of our investigation we have found that the Foreman Engineer and the Foreman Patternmaker have to execute working drawings and sketches required in connection with their work, and a fitter out of the workshops is employed copying tracings, &c., in the Manager's office.

On this point the Foreman Engineer stated :—

I do not think Martin is a mechanical draftsman. There should be one here. Any sketches that are required are done by me and Mr. Kidd. If I want a drawing or a hand sketch I have to do it myself. Martin is under me as a fitter, but he has been working up here as a draftsman for two and a-half years. Mr. Broad took him out of the shop. (P. 41.)

The Foreman Patternmaker stated :—

I have to do all the drawings in connection with the blacksmith's work. Mr. Hoey gave me to understand that I would have to do this. . . . I get no assistance from the draftsman here. I have nothing at all to do with him. I practically do the work of the drawing office in connection with my own business. I lay down working sketches on the boards full size for the blacksmiths. Sometimes we get drawings quarter scale or half scale. I take that all out in detail and make it all up for the blacksmiths.

I have been in Mort's, and from my experience of engineering workshops I think it very desirable to have an experienced mechanical draftsman here. He would help forward the work considerably. When a set of drawings came to the Island he could go through them carefully, examining them, see that the material was on the Island to carry out the work, and make any small sketches. (P. 62.)

The Engineer-in-Chief stated :—

I think a mechanical draftsman should be appointed to make the sketches for the small jobs, and to make detail sketches for the foundry. (P. 73.)

60. The Committee consider that a good mechanical draftsman, who should also act as Assistant Manager, is absolutely necessary; and they suggest that his salary should be at least £350 per annum.

61. In his list of what he considers necessary in the branch of the Establishment supervised by him, the Dockmaster has included a diver. The Committee agree with this, and recommend that one of the shipwrights should be a diver, being only paid in that capacity when so engaged. The diving dress and complete apparatus which would be required should be permanently kept at the Island.

#### VI.—INSUFFICIENT PROVISION OF MACHINE TOOLS.

62. In pointing out one of the causes of the large cost of work carried out at the Government Docking Establishment, reference was made to the inadequacy of the machine tools.

63. As further instancing this fact, the following statements are quoted :—

The Manager said :—

We are deficient in machines. If there is a breakdown job we sometimes have to work overtime. (P. 26.) We want a lot more lathes to do away with a lot of overtime. . . . The natural course of events will be that the work will get more and more. (P. 27.)

The Foreman Engineer said :—

I do not think we have a sufficiency of machinery. We have been working overtime for the last two and a half years. We are so short of machines that we must keep the machines going overtime to keep the fitters employed. . . . What we want principally are lathes. . . . We have only one screwing

screwing machine to do the whole of our work. (P. 39.) To reduce the overtime I would suggest that we get three more lathes, a screwing machine, and a slotting machine. (P. 40.) We can do our work as cheaply as outside firms providing they give us proper machinery to do it with, but not if we have to keep doing overtime. (P. 41.)

The Engineer Inspector said :—

There are not sufficient lathes here. I have seen work standing for days waiting to go into the turning machines. I should think the furnishing of these tools would have the effect of doing away with a large amount of overtime. (P. 45.)

The Foreman Boilermaker said :—

We are badly off for tools. We have about the worst shop in the Colonies so far as tools are concerned. . . . I need a plate-planer and a drilling machine and other machinery. . . . I have not sufficient boiler power to drive the new machinery. We have a riveting machine, but no gaunting over it. We have no rivet-making machine. (P. 45.)

Mr. R. McCulloch, Blacksmiths' Representative, said :—

There are not sufficient tools. We want another hammer. There is a back shop, and all the men have to come from that back shop to the hammer when they have a heat, and by the time they get there the best of the heat has gone. (P. 60.)

Mr. Kidd, Acting as Foreman Pattern-maker, said :—

We have got only one turning lathe and a band-saw. It is not sufficient to carry on the work of the shop rapidly and economically. (P. 62.)

Mr. Stewart, Assistant to Foreman Engineer, said :—

We have not sufficient machines in the shop. We are short of lathes. If we had more lathes it would do away with some of the overtime. (P. 64.)

The Engineer-in-Chief for Public Works said :—

During the past year we have increased the appliances very much. . . . But still the growth has been so rapid that our machines are behind our requirements. (P. 73.) We want a lot more tools and planing machines. (P. 76.)

64. Having heard this evidence and carefully examined the machinery at present in the workshops (a list of which will be found at pp. 54, 55, and 91) the Committee came to the conclusion that there certainly is urgent need for the immediate supply of a number of machine tools.

65. We therefore requested the Manager and the Foremen to supply lists of the tools they considered necessary, and these lists will be found in the evidence. It will be further seen that the Manager, in his report (p. 89) says :—

It must not be understood that what is asked for now (by him) is imperatively necessary to be all at once supplied, but that it may be realised in say five years by gradual and judicious development, because workshops will have to be extended in the first place to receive the tools asked for.

66. The Committee, however, are of opinion that a certain number of machines should be supplied at the very earliest opportunity, and these are specified in the list subjoined :—

Engineers' Shop.

One 18 in. gap lathe.  
One 10 in. gap lathe.  
One 8 in. turret lathe, for brass-finishing.  
One screwing and nut-tapping machine.

Boiler Shop.

One travelling crane over riveting machine.  
One set of plate bending rolls.  
One plate edge planing machine.

Carpentering Shop.

One breaking-down saw.  
One four-headed planing machine.  
One 10-ton wharf crane for lifting logs out of water and placing them on saw carriage.  
New boiler, under fired, to burn either sawdust, timber, or coal.

Smith's Shop.

One steam hammer, 10 cwt.  
One steam hammer, 7 cwt.  
One silent fan, for 30 fires.

67. We also wish to draw attention to the fact that certain machines which were asked for by the Manager of the Establishment on the 24th June, 1897, and approved by the Minister on the 6th July, have not been received up to the present, though expected within a few weeks.

68. If the machinery we have recommended above be supplied, the necessity for a large portion of the overtime now worked would vanish, and the cost of the work performed would be materially reduced.

#### VII.—NECESSITY FOR APPLIANCES FOR LIFTING HEAVY WEIGHTS FROM VESSELS WHEN IN DOCK.

69. During the Committee's inspection of the Establishment they have been struck with the absence of any appliance for lifting heavy weights from ships in dock, such as propellers, rudders, shafts, or portions of the engines. The evidence, quotations from which are given, shows that the "shore" cranes running on rails beside the Docks will only lift light weights, and that when 15 or 20 tons or more require moving special tackle must be rigged on board the vessel for the purpose.

##### 70. The Manager said :—

The only appliances for lifting heavy weights such as propellers and shafts are the cranes at the big dock. The inner one will lift 5 tons. . . . We could not lift a portion of a rudder weighing 10 tons. (P. 35).

##### The Dockmaster said :—

For lifting heavy weights they have generally got their own steam on board—their own winches. We can lift 4 tons, a straight lift. That is the maximum. (P. 38.)

##### The Foreman Engineer said :—

We have never been put to any inconvenience in the new dock for want of lifting appliances. . . . We can lift up to 30 cwt. or 2 tons with the cranes we have. There ought to be some bigger cranes. Wherever you see a big dock you see appliances for lifting big weights. (P. 41.)

##### The Engineer in Chief said :—

The "shore" cranes at the big dock will only lift 4 tons. With the present appliances we have we could not lift the rudder of the Himalaya in the dock. We have a 20 ton fixed crane on the wharf by the entrance to the old dock. (P. 75.)

71. The Committee consider that it is absolutely necessary that means should be provided whereby heavy weights may readily be moved, and, after consideration of the relative merits of fixed and floating cranes, they recommend that floating shearlegs be obtained, capable of lifting from 40 to 50 tons. As pointed out by the Engineer in Chief in his evidence (p. 75), and in his Minute which is copied on p. 78, such a crane has been a long-felt want in the port of Sydney, and has the advantage over a fixed crane that, besides doing whatever work is required of it at the Docks, it will be available for use in any part of the Harbour.

#### VIII.—NECESSITY FOR THE PROVISION OF A SLIP.

72. It has been pointed out to the Committee, and has been referred to in paragraph No. 36 of this Report, that, frequently, when one of the docks is required for a vessel of the Imperial Pacific Squadron, whatever vessels of the Dredge Service, or of other Departments, may be in Dock, must be got out as quickly as possible, and thus a large amount of overtime is rendered necessary. The same thing applies, with double intensity, when Her Majesty's ships require both docks at once, as has happened several times.

73. Under these circumstances, the Committee have concluded that it would be best to provide a slip sufficiently large to take any of the Government vessels, thus furnishing a means of working at them whether the docks are required for warships or not, and also much lessening the expense of docking the smaller vessels, while not increasing that of dealing with the larger.

74. The need for a slip has been referred to in the following testimony.

The Dockmaster said :—

It would be advisable to have a slip here for small vessels the size of the "Thetis." (P. 38.)

The Engineer-in-Chief said :—

I think it would be an advantage if there were a small slip on the Island, so as to relieve the docks of the Dredge Plant. (P. 73.)

#### IX.—DEFECTIVE CONDITION OF PUMPING MACHINERY.

75. When the Committee were questioning the Foreman Engineer, he stated : "I do not think it will be long before the pumping machinery will all collapse." This evidence was of so startling a nature that we at once decided to make a personal practical examination of the whole plant, which we did on the 24th of November last, thoroughly surveying the boilers inside and out, descending the pump shaft, and entering and examining the valve chamber and tunnel.

76. As the result of this examination, we have to report that there is nothing materially wrong with the boilers at the pumping station. All they require is resetting and retubing; and, if this be properly carried out, they will be good for ten years' work.

77. That these boilers were considered defective is proved by the boilers from the Glebe having been fitted; but such action cannot be justified by their present condition. It is also to be regretted that there is no recognised system of periodical examination.

78. The engines and pumps are of poor and faulty design. They never were and never can be made a good job, and must always be more or less troublesome and expensive. The Foreman Engineer's evidence, that he considered them unreliable and was afraid they would collapse, was fully borne out by our inspection.

79. These engines are seriously defective—so much so that we have no hesitation in stating that they should be thoroughly overhauled at once. Both of them are and always have been working considerably out of truth; and there is ample evidence, both above and below, of structural weakness, which should be materially strengthened and stiffened without delay.

80. Nearly the whole of the valve seatings of the pumps are in a lamentable condition, as are also a large percentage of the valves, of which there are 200.

81. The extra stiffening cast-iron beams, which had to be fitted to steady the engines before the Contractors' representative dared work with them at the trial, are not sufficient, and will have to be substantially supplemented before the necessary strength and rigidity can be secured.

82. The engine framing also is weak and far too shallow; and this weakness is intensified by the engine shafting, connecting rods and pump rods, &c., being out of truth. The whole of the engines need taking to pieces and relining.

83. The main injection pipe is in the wrong place, and should be shifted to take its injection from the sea, which would ensure a steady and uninterrupted flow of clean, solid water. The present arrangement is faulty, because when the pumps stop the engines have to work high-pressure for a number of strokes, thus heating the condenser, and injuring the air-pump valves, &c.

84. We are of opinion that the defects in this pumping plant should be grappled with in the following manner :—All the gear required, new valve seatings, &c., should be got ready as far as possible, also all the extra stiffening girders and beams, and three shifts, night and day, should be put on to overhaul the whole fabric. This could be done in three weeks approximately; and if the dock were required in the interval one of the powerful sand pumps of the Dredge Service might be utilised for emptying the dock, with, if necessary, a small centrifugal to assist in draining it.

85. As we have mentioned before, we are aware that the present plant will always be troublesome and expensive, and that modern centrifugal pumps would do the work as efficiently, while the wear and tear and cost of repairs would be very much less; but this would mean an enormous expense. Therefore, after due consideration, we think the present machinery can be repaired so as to serve its purpose for the next ten years.

86. In connection with the repairs, we would point out that both docks depend entirely on the one pair of engines, which are not truly in duplicate. Nothing can be done to the machinery below the surface if one pump be working, as the suction well is common to both. Further, there is but one shaft to both engines; and we think there should be a spare shaft, forged and roughly turned, ready in case of an accident.

87. In addition, we think it desirable to suggest that a centrifugal pump (not necessarily very powerful or expensive) be connected to the small dock, capable of pumping it dry in, say, eight or ten hours. This would keep this dock available in cases of emergency, or in the event of a breakdown.

88. We wish, further, to emphasise the absolute necessity for periodical personal examination of the whole plant by experienced mechanical engineers, and that a complete detailed report be submitted at least annually.

#### X.—INSUFFICIENT FIRE-EXTINGUISHING APPLIANCES.

89. In the course of our inquiry certain evidence was given that the fire-extinguishing appliances provided at the Establishment were inadequate. In view of this the Committee had a trial made, under the most favourable circumstances, but found that though the present appliances (simply hose and hydrants) are good in themselves, they would be insufficient in case of a fire.

90. We think that these appliances might be supplemented with advantage by having an oil-engine or other motor of such power that it would be capable of throwing water a greater height and with more force than the present hose connected directly with the mains. We also suggest that there should be some recognised periodical system of fire drill.

#### XI.—WORKSHOP EXTENSION, AND TRAMWAY.

91. The necessity for the extension of the workshop and for the construction of a tramway was brought before the Committee in the following evidence:—

The Manager stated:—

There is not sufficient workshop accommodation. . . . I propose to have a tramway about the place. . . . Now if we have to move things about we have to get all the labourers out to the number of thirty perhaps to do it. The proposal is to have a tramway throughout the shops and yard leading to the wharf crane. (P. 27.)

The Shipwrights' Representative said:—

Our principal grievance is what is termed our workshop. . . . There is no room to work inside. (P. 67.)

The Blacksmiths' Representative said:—

If we had more fires there would be no need for overtime. There is plenty of room on the Island for fires. We have not room in our shop for more. (P. 61.)

The Engineer-in-Chief said:—

The plan for the proposed improvement of the works is not finally decided on. . . . The growth has been so rapid lately that I have talked it over with Mr. Broad, and we have worked up a scheme, which has not received my final approval. I quite recognise the necessity of it. (P. 73). I want a system of tramways about the Island to run through the shops, a 3 ft. 6 in. gauge, to connect the cranes and the docks with the workshops. I have got it laid down on the plan and I have got money on this year's Estimates for carrying it out. (P. 73.)

92. Apart from the above evidence the Committee recognise that if the machinery they have recommended be supplied further workshop accommodation will be imperatively necessary in order that it may be properly housed, and they have therefore inspected the plan of the proposed improvements referred to above, on which are shown the extensions in detail, including a proposed new Carpenters' Shop beside the present Erecting Shop, and a proposed new Boiler Shop on the site of the present Carpenters' Shop.

93. The Committee are of opinion that this arrangement would not be the best possible, and would suggest that the Boiler Shop be left in its present position, and that the extra space required be provided by covering in the clear ground to the north of it, the cover being made sufficiently high to allow of its being used to build vessels under, if necessary, as well as for a workshop.

94. The new Carpenters' Shop, we think, should be placed on the site of the present one, so as to have a water frontage where timber in log can be landed close to the sawing machinery which we have recommended. In this position the shop would also be in close proximity to the proposed slip.

95. The remainder of the workshop extensions proposed as indicated on the plan the Committee entirely agree with, and the construction of the tramway referred to is recommended.

#### XII.—DOCKING MEN OF WAR.

96. It has been pointed out in previous portions of this Report (pars. 36 and 72) that an appreciable amount of overtime has to be worked on vessels other than warships or mailboats in order that such vessels may be speedily got out of dock to admit the warships or mailboats.

97. The Committee consider that when this is the case the extra cost of the work—*i.e.*, the difference between bare time and overtime—should, if practicable, be debited to the incoming man-o'-war or mail steamer.

98. For docking ships of war, only the actual cost of wages and stores is charged to and paid by the respective Governments, by arrangement, we presume, between the Colonial, Imperial, and other Governments.

99. The Committee suggest, however, that, whatever may be paid, dock dues, calculated at the rates of private docks, should be credited in the books of the Establishment for each ship docked, in the same way as credit is taken by the Railway Department for all free services.

100. Thus the "Royal Arthur" being in dock from the 6th to the 15th October last (nine days), and her tonnage being 7,700, the charges (according to scale on p. 32) would have been £914 7s. 6d. We think if these amounts were shown on the books it would give a better idea of the usefulness of the Establishment. The charge actually made against this ship was £64 5s. 11d.

#### XIII.—CHARGES FOR THE USE OF TOOLS, ETC.

101. The Committee are strongly of opinion that, in conformity with the practice in all private establishments, charges should be made for the use of tools, machines, etc., in the same way that the materials and the workmen's time are charged for.

#### XIV.—APPRENTICES.

102. As stated in our answer to Question No. 8, no officially recognised system is adopted in regard to the engagement of apprentices, eleven of whom are at present employed in the shops, with five improvers, and fourteen shop-boys.

103. At page 27 and 28 will be found the Regulations proposed by the Engineer-in-Chief and the Manager to be adopted in future in engaging lads in this capacity. It will be seen that an exceptionally high educational standard is set, which we consider is not necessary.

104. We recommend that a slight alteration of the system now in force in the Railway Department (see Evidence, p. 42) be adopted, but that the rates of wages at present paid to apprentices at the Docking Establishment, which only slightly differ from those ruling in the Railway Department, be retained. The following is the Rule we suggest :—

Lads will be taken into the workshops as required, to learn the trades of fitter, turner, boilermaker, &c. They must not be under the age of 15 years, and will not be out of their apprenticeship before reaching the age of 21 years. In any case the minimum term of apprenticeship will not be less than five years.

Candidates must be of good constitution, and be able to read and write with facility. They will not be bound apprentice, but will be able to resign, and will be liable to dismissal, in the same way as the men. They will also be subject to the same Rules and Regulations as the men.

The remuneration for their services will be as follows :—

First period, or up to 17 years of age,	1s.	per day.
Second period, 17 to 18	„ 1s. 8d.	„
Third period, 18 to 19	„ 2s. 6d.	„
Fourth period, 19 to 20	„ 3s. 4d.	„
Fifth period, 20 to 21	„ 4s. 2d.	„

At the end of the term of apprenticeship they will be paid wages proportionate to the value of their services.

#### XV.—THE WORKMEN AND THEIR REQUESTS.

105. The Committee having decided to see the men, an intimation was conveyed to them, through their Foremen, that if they had any matters which they wished to bring forward they might select from among themselves two representatives for each of the large staffs, and one for each of the small staffs. As a result we were waited upon by

- One representative of the blacksmiths,
- One representative of the blacksmiths' strikers,
- Two representatives of the fitters,
- One representative of the moulders,
- One representative of the boilermakers,
- One representative of the boilermakers' labourers,
- Two representatives of the shipwrights,
- One patternmaker, on his own behalf,
- One assistant engineer foreman, on his own behalf,
- One joiner, on his own behalf, and
- One foreman labourer, on his own behalf.

These men preferred the following requests :—

1. That they should not be required to furnish medical certificates when absent for a short period through illness.
2. That all should be treated alike in respect to accident pay.
3. That if a man arrives at the works within one hour of starting time he should be allowed to commence work at once, and not be compelled to stand idle until after the breakfast hour.
4. That a dining-room should be provided on the Island for them.
5. That the blacksmiths should be paid double time for the first two hours' overtime, and time-and-a-half after.
6. That when men are sent along the coast to work, they should be allowed saloon fares, not steerage, as hitherto.
7. That the allowance for board money when men are sent away from head-quarters should not cease at the expiration of three months.
8. That when men are sent to work away from the Docking Establishment, either in or near Sydney, or up country, their wages should be promptly paid.
9. That when men are sent away from head-quarters to work, they should be allowed an advance of cash if they need it.



10. That when men are sent to work on board dredges away from Cockatoo Island, at remote parts of Port Jackson, "walking time" be allowed them one way.

11. That when a public holiday occurs on a week day, they should be paid for 8 hours 40 minutes, instead of for 8 hours only, the extra 40 minutes being the time they usually work on other days to make up the full time for Saturday; and holidays occurring on Saturday being paid at  $5\frac{1}{2}$  hours only, instead of 8.

12. That annual holidays be allowed as in the Dredge Service.

13. That engineers be allowed dirt money.

14. That engineers be paid double time for the first two hours' overtime.

15. That when correspondence is addressed by the men to the Department respecting increases of pay, or on other matters, replies should be sent them.

16. That the boilermakers should be paid dirt money in connection with the work done on the "Ajax."

17. That when apprentices have completed their term, they should be paid journeymen's wages.

18. That the departmental ferry should not leave Darling Island until 5.30 each morning, instead of 5.25 as at present.

19. That labourers in the Boiler Shop should be allowed a 1d. an hour more for dirt money, as well as the boilermakers, with whom they work.

20. That shipwrights should be paid 11s. per day on new work, and 12s. on old, instead of 10s. on new and 12s. on old, as at present.

21. That further workshop accommodation be provided for the shipwrights.

22. That labourers shall receive the same allowance for board money as the mechanics.

107. Regarding request No. 1, the Committee suggest that a certificate, signed by two respectable householders, be accepted if furnished, but that otherwise a medical certificate be required.

108. We suggest that the question of accident pay (request No. 2) be left to be dealt with by the Manager, who should, at his discretion, fix the period and rate to be allowed, if any, after due inquiry.

109. In consideration of the fact that the men are not able to get off the Island to their meals, we think that request No. 4 is reasonable, and might be granted.

110. Regarding request No. 8, we are of opinion that the plan suggested by Mr. Rossbach might be carried out. (See page 77.) In any case, the wages should be paid promptly on the regular pay-day.

Mr. Rossbach's suggestion is as follows:—

The Dock should make out the pay-sheets for all the men. When a man goes away from the Dock he should be given a card with his name, position, and rate of pay stated on it, and it should also state the time he is paid up to at Cockatoo; and the officer he was going to would fill in day by day the time he was working. If a man returned in time for the Dock pay-day he could bring this with him, and if he was not coming back in time for that the officer could telegraph the time to the Dock, and by that means the Dock would have a complete record of his time, and could pay on it.

111. Respecting request No. 9, we suggest that the Docking Establishment Manager be empowered to let the men have an advance of cash when they are sent away.

112. The matter of "walking time" (request No. 10), is one which the Committee can scarcely decide, as it depends upon circumstances which, we think, should be left to the Superintendent of Dredges and the Manager of the Docking Establishment to deal with.

113. Regarding request No. 17, we have already recommended that when lads have completed their term of apprenticeship they should be paid according to their worth.

114. Request No. 21 is dealt with in the Report.

115. With respect to request No. 22, as accommodation is generally very limited in the places to which these men are sent, and they have no choice in this matter, we suggest that discretion be given to the Manager of the Establishment to grant the same allowance to labourers as to mechanics or not, according to the places to which they may be sent.

116. Of the remaining requests, we consider Nos. 3, 6, 7, 11, 15, and 18 reasonable, and recommend that they be granted at the discretion of the Manager; but we are of opinion that request No. 12 should not be granted, as the men are paid overtime rates; and that requests Nos. 5, 13, 14, 16, 19, and 20 should be declined, as the rates asked are not paid by any private employer, and the men working at the Docking Establishment already have considerable advantages over those employed by private firms.

#### XVI.—COMPLAINT AGAINST THE DOCKMASTER.

117. In response to a communication from Mr. W. H. Wilks, M.P. for Balmain North, asking that two shipwrights, ex-employees of the Docking Establishment, be granted a hearing, the Committee saw these men (Henry White and James Murphy) who laid before them certain complaints regarding the Dockmaster. The latter was then afforded an opportunity of replying:

118. Having heard the complaints and the reply, we do not think the charges are sustained. (See Evidence, pp. 70, 71.)

#### XVII.—STATEMENTS OF MR. J. HOEY REGARDING THE FOREMEN.

119. When our investigation was about drawing to a close, we received further communications from Mr. W. H. Wilks, M.P., in which he asked that Mr. Jas. Hoey, ex-Superintendent of the Docking Establishment, be examined, stating that that gentleman was willing to give evidence, and that such evidence would be of "inestimable" value.

120. We thereupon held a meeting for this purpose, and Mr. Hoey made certain statements regarding the Foremen employed at the Establishment.

121. In order to give these men an opportunity of replying, we held a further meeting, had Mr. Hoey's statements read to them, and heard their rejoinders, which will be found in evidence.

122. A few days later we received the following letter from Mr. Hoey, our reply to which we also give beneath:—

The Committee of Inquiry into the Management of the Government Docking Establishment at Cockatoo Island,—

Gentlemen,

41, Short-street, Balmain, 15 December, 1898.

The evidence which I gave to your Committee I regard as being for the purposes of the inquiry only. I trust that, for obvious reasons it, will not be made the subject of conversation outside, especially to the officials at Fitzroy Dock Works.

I am, &c.,

JAMES HOEY.

James Hoey, Esq., 41, Short-street, Balmain,—  
Sir,

20 December, 1898.

I am directed by the Committee of Inquiry into the Management of the Government Docking Establishment to acknowledge the receipt of your letter dated the 15th instant, in which you state that you "regard your evidence as being for the purposes of the inquiry only," and you "trust that, for obvious reasons, it will not be made the subject of conversation outside, especially to the officials at Fitzroy Dock Works." In reply, I am directed to state that, in consequence of your having made certain charges against the foremen employed at the Docks, the Committee thought it only fair and just to have your evidence read to those men and to give them an opportunity of defending themselves. This has been done.

I have, &c.,

J. GARLICK,

Secretary to Committee of Inquiry *re* Government Docking Establishment.

123. Having investigated these statements, the Committee consider that they are not sustained.

124. With regard to the Foremen having relatives employed at the Docks (a matter referred to by Mr. Hoey), the Committee approve of Mr. Darley's minute of the 15th November, 1893 (p. 86), which was approved by the Minister on the 27th November, 1893.

#### CONCLUSION.

125. In conclusion, it is due to the responsible officers in charge of the Docking Establishment to say that, in a mechanical sense, the work done will compare favourably with that of any private establishment.

We have the honor to be,  
Gentlemen,  
Your obedient Servants,

ROBT. POLLOCK, Chairman.

WM. D. CRUICKSHANK, }  
A. B. PORTUS, } Members.

(Subject to dissent recorded below.)

126. I entirely disagree with the recommendation to create a Board of Control, because I consider it unnecessary, and that in practice it would be unworkable. I feel thoroughly certain that Mr. Darley, the Engineer-in-Chief for Public Works, is qualified to decide upon all matters which the Manager of the Establishment may from time to time submit for his direction.

127. I disagree with that portion of paragraph 77 which refers to utilising the Glebe Abattoirs boilers. They belonged to the Government and had been lying unused at the Docking Establishment for a long time. Now that they are built in they serve the dual purpose of supplying steam for any machinery, electric or otherwise, and of being used as occasion may require, in lieu of the pumping engine boilers, which, being of the under-fired type, are not, in my opinion, thoroughly reliable under conditions of hard firing.

A. B. PORTUS,  
Member.



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### Dock Establishment, Cockatoo Island.

A Committee, consisting of Mr. Robert Pollock (Chairman), Mr. A. B. Portus, and Mr. William Cruickshank, having been appointed to inquire into the working of the Dock Establishment at Cockatoo Island, with a view to reporting to the Public Service Board on the subject, the following instructions are issued for their guidance.

In carrying out the inquiry it is desirable that the Committee should direct their attention more particularly to the following points :—

1. The competency or otherwise of the Officers at present employed.
2. Whether the staff is sufficient, insufficient, or excessive, having in view proper and economical supervision.
3. Are the rates of remuneration paid to the officers commensurate or not with the duties they are called upon to perform.
4. Are the rates of wages paid to the workmen in accordance with the current rates of their respective trades.
5. Is a sufficient number of men put on to efficiently and economically perform the work required.
6. What system is adopted in the taking on and discharge of men, and whether the Superintendent is left sufficiently untrammelled in this particular, and in the management of the men.
7. Whether the system adopted in keeping and checking the time of the men employed is an efficient one.
8. What system is adopted in regard to the engagement of apprentices, and what, if any, improvement can be suggested therein.
9. Are the arrangements at present in force for the quick supply of needed stores and material the best that can be adopted.
10. Are the stores supplied of good quality, and the rates paid therefor reasonable.
11. Is a sufficient check kept on the use of the stores, so as to ensure economical consumption and the avoidance of waste.
12. Whether the supply of tools, machinery, implements, slips, &c., is sufficient for the working of the Establishment, and, if not, in what particular is the supply deficient ; and, further, if by better arrangements as regards such plant, or in other ways, night work might not be largely curtailed.
13. Generally to advise as to whether the whole Establishment is conducted in such a manner as to ensure the best results to the State being obtained, and, if not, to report what measures are necessary in order to bring about this desirable end.

In carrying out these inquiries the Committee are given the fullest latitude to pursue the investigation in any direction they may think necessary ; and all the officers and employees of the Department are enjoined and directed to give the Committee all the assistance in their power to aid them in their inquiry.

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*MONDAY, 7 NOVEMBER, 1898.*

PRESENT :

MR. R. POLLOCK, Chairman.  
MR. A. B. PORTUS. | MR. W. D. CRUICKSHANK.

The subject of the inquiry was discussed in a preliminary way at Mr. Pollock's office, 17, Bridge-street, city, in the morning.

In the afternoon the Committee visited Cockatoo Island, interviewed Mr. Broad, and asked him to prepare a plan of the Island, showing the arrangement of the different works. Mr. Broad was also asked to prepare the following returns :—

1. Detailed list of the staff, showing salaries.
2. Rate of wages paid to workmen in the various shops.
3. Contract prices for stores.
4. Average number of men employed in the various shops per month, for the past twelve months.
5. Charges against men-o'-war using the dock in relation to their gross tonnage.

It was then decided that the Committee should sit on Mondays, Wednesdays, and Fridays at 2 o'clock p.m.

The Committee then adjourned until 2 p.m. on Friday, 11th instant, Wednesday, the 9th, being a public holiday.

11 November, 1898.

Confirmed,—  
ROBT. POLLOCK, President.

J. GARLICK, Secretary,  
7 November, 1898.

FRIDAY, 11 NOVEMBER, 1898.

The Committee met at 2 p.m. at Prince's Stairs, Circular Quay, and proceeded in the launch "Dayspring" to Cockatoo Island, where a meeting was held in the Board Room.

PRESENT :

MR. R. POLLOCK, Chairman.  
MR. A. B. PORTUS. | MR. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Secretary reported having written letters to Messrs. Foster and Minty, Grant Bros., T. and A. Halliday, Chapman and Co., and Mori's Dock and Engineering Co., as follows :—

I have the honor, by direction of the Committee appointed to inquire into the management of the Government Docking Establishment at Cockatoo Island, to ask that you will be so kind as to favour them with a statement of your Schedule rates for mechanics, &c., engaged on repairs and new work, the wages paid to the men, and in what cases dirt money is allowed.

This information is needed in order that a comparison may be made with the cost of repairs at Cockatoo Island and the wages paid there, and will be regarded as strictly confidential.

He also reported the receipt of a reply from Messrs. Foster and Minty (copy attached, page 29).

The Secretary further reported the receipt and handed in copies of the following returns furnished by Mr. Broad, the Superintendent of the Docks, as under :—

1. List of staff, showing their salaries (copied on page 30).
2. Return showing rates of wages paid to the workmen in the various shops (copied on page 30).
3. Contract prices for Stores.
4. Return of number of men employed in shops, asked for at last meeting, is embodied in Return 2 (page 30).
5. Statement of charges against war and other ships for docking and repairs (see pages 31 to 34).

Examination of Mr. E. J. H. Broad, General Superintendent, Docking Establishment.

Mr. Broad was called, and handed in further returns as under :—

6. Average number of men employed in various shops for 12 months (see page 34); and
7. Statement of principle upon which sick pay and holidays are allowed (see page 34).

Mr. Broad stated, in reply to questions :—

*Sick Pay.*—If a man meets with an accident he has to get a doctor's certificate that he is unfit for work. Then he is paid as follows :—1st month, full time; 2nd month, two-thirds time; 3rd month, one-third time. The men do not contribute a farthing to this; it is allowed by the Government to the men as a privilege.

*The Quarry.*—We have not room enough here, and we are taking away the rock behind this building, alongside the dock; it is stock work, improving the property; you see we are hemmed in by the Gaol on one side and by the Sobraon Ground on the other, so that we cannot extend without taking away the rock; we put these men on this work as we are able; sometimes we are busy in the yard, and we cannot put so many on.

*Men Employed.*—The return shows the average number of men employed as 362 per month; we have at times had 400.

*Mr. Broad.*—I have been here five years and three months; I am in sole charge of the Island; my immediate chief is Mr. Darley, the Engineer-in-Chief.

*Office and Managing Staff.*—I have no complaint whatever to make regarding my staff and foremen as far as their abilities are concerned; I am perfectly satisfied with them; they were all here before I came; if any vacancy occurred it would be filled by the Public Service Board; I do not think the staff is quite sufficient for the work we do; I have not got sufficient assistance; since I have been here the number of hands has been reduced to 100 and 150, but that was only in my first year; I make it a point to arrange matters so that we have as a rule just the same number of men; I do not like the fluctuation; at the time we got so low the funds were exhausted; now I try to make them extend to the end of the year—that is, not to spend them faster than is consistent with keeping up the staff throughout the year; I think the salaries of my assistants had better be judged by those paid by outside firms to officers holding similar positions.

*Taking on Men.*—The foreman comes to me and reports he wants men; if there are none on our books available for immediate work, I tell him as soon as any men apply to take them on, and if he has difficulty in getting workmen he tells the men in the shop and they send men here and we take them on.

*Discharging Men.*—When men are not required a list is always submitted to me to see if I approve and if so, they are discharged; I take them on and dismiss them myself.

*Overtime: Insufficient Machinery.*—We have worked a little overtime in consequence of not having sufficient machinery, but my great desire is not to have any overtime at all if possible; we are deficient in machines; if there is a breakdown job we sometimes have to work overtime, but not unless it is necessary; the men themselves do not like it; the rate paid for overtime is time and a half for the first two hours; shipwrights get double time; the rates of overtime are the same as in other places.

*Checking Time of Men.*—When a man arrives in the morning he first comes to the timekeeper's office window and the timekeeper gives him a ticket; the man deposits this ticket in a box, and then goes to work; after the men have started work the timekeeper examines the box and rearranges the tickets on a board kept for the purpose; after breakfast they do the same again, and the same at each meal; the only chance for a man to get away is to go straight away after he puts his ticket in the box instead of going to the shop, but if he is found out he is dismissed at once; the system used to be that the men took their tickets away at night and put them in in the morning, but there was not sufficient check in that.

Dissection

*Dissection of Time.*—The foreman in every shop keeps the time as well as the timekeeper in the office. The foreman sends in the time each man is on the different jobs.

*Stores.*—When a man wants stores for a job he goes to the foreman and the foreman writes out an order; the man used to take it to the stores, but we found that a lot of time was lost that way; now I have got a labourer who practically attends most of his time to the stores; he gets the dockets and takes the stores to the mechanics, thus saving a lot of time; I have known men go to the stores to see if material was there, and then go back for an order, and then go and get the stores; if a particular article is not in the stores we have to order it; the storekeeper keeps the dockets and from these the accounts against the ship are made up, and they are checked against the stock at the end of the year; they are all sent to the Head Office and examined there again; it is necessary to send the accounts through the Head Office in order that a check may be kept against outstanding accounts.

*Accounts for Work Done.*—We supply the Head Office with the details of work done on a ship, and they send in the accounts; we give the Head Office the time of the men on that work and the stores issued for it; the Head Office keeps a "Cost Book"; it was kept here formerly, but the officer keeping it was moved down there so as to be more under the immediate control of the Accountant; he is entirely dependent on the information we give him.

*Inspection of Books.*—Treasury Inspectors come here to inspect our books; we never know when they are coming; one might be here to-day; they come and examine the petty cash and check the stores; they may ask how many inch bolts we have in stock according to the books, and then they see how many we have got and they have to tally; it is a splendid check on our stock and on our books.

*Stores.*—The Department conceives it to be the duty of the Contractor to keep a stock in his yard and not for the Government to have them in store, but the Contractor will not do it for the Government; the Contractor is only paid for what he delivers; we have a store Advance Account of £7,000, and that sum is always swimming; even with our small stock now that sum is all out; if we had a larger stock we should require an extra advance; it would be very much better if we had a larger stock; we are doing so much now for outside Departments that I doubt very much whether, if the advance were increased to £10,000, it would be sufficient; some time ago we had £5,000 put on, but we cannot touch that for the Store Advance Account—it was to be entirely for the outside services; for instance, we are working for the Marine Board, and that £5,000 was to be exclusively appropriated for the use of the Marine Board, to pay for stores used for them and that sort of thing; of course it is refunded to the Vote from the various Marine Board Votes, but the arrangement has not been carried out to any great extent; I merely mention the Marine Board as an instance of the charges it was intended to make against the £5,000 vote; the same remark applies to all outside Departments for which we carry out work.

*Accountancy.*—We have a book showing how the Establishment stands; it shows the expenses and credits; it shows the actual money paid or charges for work done, and whether the work is on the hull or the machinery or the boilers.

*Machinery.*—I do not think we have got sufficient machines here; we want a lot more lathes to do away with a lot of overtime; I did not anticipate eighteen months ago that we were going to have the work we have had from the Tramway Construction Department; that has required a lot of our machines, and in consequence we have had to work a little overtime; the natural course of events will be that the work will get more and more; the Dredge Service is increasing considerably; there is considerable increase per year in the Dredge Service, and then there is a tendency in the other Departments to get their work done here.

[At Mr. Cruickshank's suggestion the Committee asked Mr. Broad to prepare a written statement of the machines now on the works, and of those he considers necessary, and anything else in the Establishment where, in his opinion, the facilities are imperfect or insufficient for the work to be done, with a provision for the future.]

*Workshop Accommodation.*—There is not sufficient workshop accommodation; I have got a sketch of the place here, but I will get you a better one—a drawing which is with the Engineer-in-Chief showing my ideas for the development of the place; I propose to have a tramway—3 ft. 6 in.—to move things about the place; now, if we have to move things about, we have to get all the labourers out to the number of thirty, perhaps, to do it; the proposal is to have a tramway throughout the shops and yard leading to the 20-ton wharf crane.

*Apprentices.*—We have a good many apprentices at present—54; there has been no arrangement whatever with them up to the present time; those who made application were taken on whenever there was an opportunity; generally they apply to a Member of Parliament, and he interests himself on their behalf, and when there are vacancies we take them on irrespective almost of age or qualifications or anything else; I get the consent of the Engineer-in-Chief; I take on shop boys without getting consent; the following are the Regulations I think advisable for the introduction of apprentices of the ordinary class—that is, those whose only desire is to become journeymen mechanics:—

*Regulations for Admission of Apprentices to the Government Dock Yard at Cockatoo Island.*

1. The number for admission will depend on circumstances, and the necessity for them. The Public Service Board will notify in the public Press the number that will be taken on in each of the following shops, viz.:—Engineers' Shop, Blacksmiths' Shop, Boilermakers' Shop, and Pattern Shop, and they shall be admitted only on successfully passing an examination in the elementary branches of knowledge as a qualification for such apprenticeship.

2. An examination will take place, when and where directed by the Public Service Board, in the following branches of knowledge:—English, Grammar, Writing from dictation, Arithmetic, Algebra, Geometry, Geography, English History.

3. Each candidate must notify the Public Service Board in his own handwriting within the limit of time prescribed in the notice for Government Dockyard apprentices.

4. The Public Service Board will notify to the applicants the time and place where the examinations will be held.

5. Each candidate, on receipt of a notice from the Public Service Board will be required to affix a 1/- duty stamp to the notice before he can be admitted for examination.

6. Each candidate must not be under 16 years, nor over 18 years of age, at the time of examination.



7. Only one member of any employee's family will be allowed to compete, as it is very undesirable to have at any time more than two members of any family employed here.

8. Any candidate successfully passing the scholastic examination, but fails to pass the medical examination—as to constitution and good health—will be rejected on that account.

9. The successful candidates will not be bound apprentices, but will be able to resign, and will be liable to dismissal in the same way as the men or for insubordination or improper conduct, and they will in every way be subject to the printed Rules and Regulations for the proper and efficient working of the Government Dockyard Establishment.

10. No apprentice shall be employed more than twelve months after the expiration of five years of apprenticeship, for which he will receive improvers' rates.

11. Any apprentices showing exceptional ability, clause 10 will not apply, but their services may be temporarily retained if thought advantageous to the Department.

There is a great demand to "apprentice" youths here for the reason, I suppose, that outside engineering establishments require a large premium; and so long as no premium is asked by the Government it is only reasonable that the most promising youths should be selected when they are required.

*Stores.*—If any bad stores are supplied we tell the Contractor to remove them, and when the voucher is sent in we will not pay it; some time ago Mr. Broomfield sent in some very defective white lead and we refused it; he took it back and sent some more, and we refused that also; if Contractors do not come and take away bad stores we write to Head Office, and the Under Secretary writes them to take the goods away at once; the Contractors, when informed of the rejection of any goods supplied are also notified that the goods have not been taken delivery of, and are lying at the Dock at their risk; notwithstanding that in the contracts special brands of white lead are specified the Contractors want to send in other brands; Champion's was specified, but Broomfield having the contract insisted on sending in Burrell's; this lead was bad; it has gone as hard as a brickbat; you could hardly break it with a hammer. The delay in getting stores is mainly due to the circumlocutory way the whole business has to go through; I send a requisition to Head Office, and it goes from one to another, and one to another, and one to another, and time is lost that way; not only is time lost but it costs more; if we want half-a-dozen boiler plates, Buddle, styled a clerk, but really the storekeeper's assistant, goes round and ascertains whether plates can be got anywhere approximate to what we want; if they cannot be got he gets as near as he can; the reason for that is that if we make out a requisition for what we want it will come back saying it is not in stock; frequently vouchers come down with "weights of material not right"; some plates were ordered,  $1\frac{3}{8}$  in. thick; the stupid contractor, instead of writing the exact size of the plates that he delivered to us, which were 10ft. long, copied the order we sent 8ft. x 4ft. x  $1\frac{1}{4}$  in. because he thought that would agree better; we had to take 10ft. sheets because they were the nearest to suit the job; I cannot order stores except through Head Office. If I cannot get a size to suit our purposes we have to stock, and we indent for them; if it is a very urgent job I must go to somebody who has got plates, perhaps Mort; I think the manner of dealing with the stores could be very much improved.

[Mr Broad was then asked to put in writing his ideas of how the method of dealing with stores could be improved upon, and also any suggestions as to how the present system of managing the works could be altered with a view to better or more economical working.]

*Urgent Work.*—Sometimes the Marine Board, or another Department—the Asylums—sends up saying "I want so-and-so done directly"; I have no authority to do that, although I know it is urgent; I must get authority from Head Office, and that hampers me; I have frequently telephoned to the Engineer-in-Chief, and where it is a very urgent job he has told me to go on with it; but supposing I get verbal approval from the Engineer-in-Chief our next trouble is that we do not know what to charge the time to; there must be authority from Head Office for putting the time down and paying the men; they will not accept me as an authority for spending money; it might answer to say "Engineer's authority per telephone," but if I did that a few times they would say I might just as well not ask leave at all; if I do the work they send up from the Head Office and ask "Where is your authority?"

*Timber.*—What is conspicuously the worst thing about the place is the delay in the supply of timber; I will get you out some cases where delay has occurred.

*Accounts for Work Done.*—The accounts for work done are sent in to Head Office from here; the accounts could be sent from here to the various Departments; my opinion is that the accounts should be sent in when the jobs are finished, except where it is a very large work, and then they should be sent in in periods; we send to Head Office the time-sheets that the men are paid from.

[Mr. Broad was then asked to furnish the Committee at their next meeting with actual copies of the accounts sent to the Head Office in connection with the last docking of the "Captain Cook" and the "Galatea"; and the Secretary was directed to obtain from the Public Works Department actual copies of the interim and final account issued by Head Office against the Marine Board and Dredge Service for the work done on these boats.]

*Injuries to Men—Who Bears Cost of Accident Pay?*—If a man is injured when working at a warship, the warship bears the accident pay while she is here; but if the man has not recovered when she leaves, the Dock bears the expense afterwards.

*Dock Vote—Surplus.*—The Vote was reduced in 1893, and there was no other course but to discharge the men; I take care now not to absorb the Vote; the money to pay the men on the Dock is voted in advance; we must always keep a certain staff on; £5,600 is voted every year, and has been for years past, for the working of the Dock Establishment; sometimes it is not all used, but the surplus is not carried on to the next year; it is paid into the Treasury; I must not exceed it, but must dismiss the men; that Vote is simply for the maintenance of the Docks and the Establishment; only the wages of the men engaged in maintaining the docks or making new works and improvements are paid out of it; the men doing the work on the jobs are paid from the work they are on; men working on a job for the Marine Board are paid with money received from the Marine Board; of course we must pay the men a month or two before the Marine Board pays us, and that is done out of the Vote, the money being refunded when we send the accounts in; a regular Paymaster brings the money here from the Head Office to pay the men; the wages of the men employed in docking men-of-war, shoring up, and so on, come out of the Vote, and the pay of the men on this quarry also; that Vote is the only fund we have; the small sums we charge to the men-of-war for wages in connection with docking are paid into the Treasury, and not refunded to the Vote—they are kept to recoup the Treasury for the advance—but the moneys charged for repairs and stores used are paid back to the Vote; in the account against the "Karrakatta" (page 31), there

there is "shipwright, six-and-a-half hours"; he was putting up the shores; the "Karrakatta" pays for that; that £22 2s. comes out of the Dock Vote to pay the men's wages; the "Karrakatta" pays it to the Treasury, but it is not paid back to the Vote; if we did £22 2s. worth of repairs to the "Karrakatta" it would come back again to the Establishment; upon that point it would be just as well to get advice from the Head Office; there seems to be a division of opinion as to where it does go.

*Charging beyond the Twenty-four Hours.*—If a merchant ship is here and is an hour or so beyond the twenty-four hours, if the dock is not engaged I use my own discretion as to whether I shall charge for that; we cannot go by a hard-and-fast rule; we have even had them two or three hours beyond the twenty-four, but they have always asked before-hand and explained the reason—something over which they had no control; if a merchant vessel is in dock over Sunday, we do not charge if no work is being done on that day.

*Officers.*—Those six officers specified in the return (p. 30) are virtually all the responsible officers about the place; those are the men who come under the operation of the Public Service Act, but in addition to them there is a foreman labourer here, a foreman patternmaker, the timekeeper, and two men in the store; Buddle, who goes round and ascertains where stores can be obtained, is wholly employed at Head Office, but comes here every morning for orders; Lawes, the Chief Clerk, keeps the books; I think the best way of judging their salaries is by comparing them with those paid outside for similar work.

*Fitters.*—I do not think the supervision of the fitters and turners is sufficient; Gibson has a good deal of running about to do; if there are ten or a dozen ships here he has to go to every one of them, and during that time the men in the shop will talk a good deal and idle, but I do not think there is very much idling going on here; Fulton, the Inspecting Engineer, is really an outside inspector; he has little or nothing to do here; Mr. Gibson has to go off the Island, but not often; Fulton is not Gibson's assistant; he is paid from here, but his salary is charged to the various works he is on; he sends in his time-sheet with so many hours at Pope, Maher's, and so many hours at other places; we pay him and charge the money to the various services; Mr. Gibson has really no assistant; I asked for a Foreman Blacksmith, but they would not grant it; we need a leading hand, not a foreman, to look after the men and work with them, not to knock about with his coat on.

*Political Influence.*—Political influence has not been felt here to any great extent; when I have discharged men they have gone to their Member, and he has gone to the Minister and Engineer-in-Chief; I cannot say that at any time I have been threatened by any of them; I think political influence has slightly decreased since the advent of the Public Service Board, although it was not very strong before; now if any Member wants a favour he generally comes personally and talks the matter over; he would not do that before; there are only a few here now who have a lot of political influence, but it is very nearly used up; Mr. James Johnstone was the only one who got me into trouble in the early days; I had a notification the other day that it was practically left to me to take on and discharge hands; it was left to me before, but I was coerced to a certain extent, but I am not now; I have full power to take on and discharge men, but I have got to show good cause for it; if I say there is no more work when there is really no more work it is all right; in 99 cases out of 100 where complaints have been made and the Department has asked me to report, they have found that the men have not had any foundation for the assertions made; for instance, a man complained that he was unfairly treated and not properly paid, and I sent down a list of his twelve months' pay, amounting to nearly £150.

*Grading of Men by Public Service Board.*—It would never do for the men to be graded by the Public Service Board; it would never do for the Public Service Board to interest themselves in the men working here; we pay some men more than others according to their work; we take a man on and give him so much a day; if he works very well we give 1d. per hour more, if he is deserving it; some men here you never see away from their work, no matter when you go to the shop, and they are worth a little extra; you do not want a man to look after them; it would not do for the Public Service Board to grade these men because the work fluctuates; supposing next week the work tapers out we would have to get rid of the men; the men know it themselves now.

[Mr. Broad then conducted the Committee on an inspection of the workshops, quarry, stores, and pattern rooms.]

*Quarry.*—At the quarry Mr. Broad informed the Committee that the rock and shale excavated was taken to Darling Island in a Dredge Service punt, but nothing is credited to the Dock for the services or material.

At 5 p.m. the Committee adjourned until 2.15 p.m. on Monday.

The Secretary, Committee of Inquiry re Government Docks,—

Dear Sir,

Peacock's Point, Balmain, Sydney, 9th November, 1898.

In reply to your inquiry dated 8th November, 1898, re rate of wages paid to mechanics, &c., engaged on repairs and new work, we have much pleasure in forwarding to you the attached Schedule with particulars as to overtime, &c., &c. Trusting it will be of some service to you.

Yours, &c.,  
FOSTER & MINTY.

Receipt acknowledged with thanks.—J.G., 10th November, 1898.

[NOTE.—As the information as to rates of wages paid by Messrs. Foster and Minty was supplied on the understanding that it would be regarded as confidential, it has been omitted.]



## Charges for Docking, &amp;c., Men-o'-War.

*Docking.*—Mr Broad states that no tonnage rate is charged for docking men-o'-war, either for the British or foreign Governments, such work being done free.

*Repairs.*—For repairs, &c., the following is the system of charging :—

1. Wages of men engaged on the work for the time actually employed.
2. Salaries.—If only one vessel is under repair, the whole of the office salaries for the time taken in those repairs is charged; but if more than one vessel be undergoing repair the office salaries for the time are divided equally, irrespective of tonnage; thus, if a 6,000-ton vessel were being repaired and another of 2,000 tons, each would be charged half of the office salaries, not three-quarters to the former and a quarter to the latter, as would be the case if the charge were according to tonnage.
3. Stores, Materials, &c.—The actual amount consumed, plus 10 per cent. for waste, &c., is charged.

Examples of these charges are attached in the shape of copies of accounts rendered against H.M.S. "Boomerang," on 3rd November, 1898, H.M.S. "Karrakatta," October, 1898, H.M.S. "Royal Arthur," 3rd November, 1898.

The above applies to warships only. Attached is a copy of the scale of charges fixed by the Minister for docking and repairs to vessels other than warships.

10th November, 1898.

Sutherland Dock, Department of Public Works, Harbours and Rivers Branch,  
Sydney, November 3, 1898.

Agents and Owners,

To actual Expenditure of Stores, &c., incurred in docking H.M.S. "Boomerang," 735 tons.

Docked October 17, 1898. Undocked October 21, 1898.

Date.	Particulars.	Days.	Hours.	Rate.	Amount.
1898.					£ s. d.
October 17 to 21.....	Engineer.....	.....	6½	10/-	0 8 1
	Fireman.....	1	0½	7/-	0 7 5
	Shipwrights.....	1	6½	12/-	1 1 9
	Labourer.....	2	4½	9/6	1 4 0
	".....	1	0½	7/6	0 8 0
	".....	19	1½	7/-	6 14 4
	Large Coal, old, 2 tons 16 cwt. ....	.....	.....	10/7½	1 9 9
	Castor Oil, new, 1 gal. ....	.....	.....	2/8	0 2 8
	Kerosene, " ½ ".....	.....	.....	-18½	0 0 2
	Tail Oil, " ¼ ".....	.....	.....	2/4½	0 0 7
	Waste, " 1½ lb. ....	.....	.....	29/4	0 0 5
	Salaries.....	4	0	34/4	6 17 4
	Electric Light.....	4	0	16/8	3 6 8
	Total.....	.....	.....	.....	£22 1 2

Sutherland Dock, Department of Public Works, Harbours and Rivers Branch,  
Sydney, November 3, 1898.

Agents and Owners,

To actual Expenditure of Stores, &c., incurred in docking H.M.S. "Karrakatta," 735 tons.

Docked October 17, 1898. Undocked October 21, 1898.

Date.	Particulars.	Days.	Hours.	Rate.	Amount.
1898.					£ s. d.
October 17 to 21.....	Engineer.....	.....	7	10/-	0 8 9
	Fireman.....	.....	6½	7/-	0 5 8
	Shipwrights.....	1	6½	12/-	1 1 9
	Labourers.....	3	4½	9/6	1 13 10
	".....	3	7½	7/6	1 9 9
	".....	15	0½	7/-	5 5 7
	Large Coal, old, 2 tons 16 cwt. ....	.....	.....	10/7½	1 9 9
	Castor Oil, new, 1 gal. ....	.....	.....	2/8	0 2 8
	Kerosene " ½ ".....	.....	.....	-18½	0 0 4
	Waste " 1½ lb. ....	.....	.....	29/4	0 0 5
	Salaries.....	4	0	34/4	6 17 4
	Electric Light.....	4	0	16/8	3 6 8
	Total.....	.....	.....	.....	£22 2 6

Sutherland Dock, Department of Public Works, Harbours and Rivers Branch,  
Sydney, November 3, 1898.

Agents and Owners,  
To actual Expenditure of Stores, &c., incurred in docking H.M.S. "Royal Arthur," 7,700 tons.  
Docked October 6, 1898. Undocked, October 15, 1898.

Date.	Particulars.	Days.	Hours.	Rate.	Amount.
1898.					£ s. d.
October 6 to 15.....	Engineer.....	1	2	10/-	0 18 6
	Fireman.....	1	3½	7/-	0 10 3
	Shipwrights.....	8	1½	12/-	4 18 7
	Labourer.....	5	4½	9/6	2 12 10
	Labourers.....	7	6½	7/6	2 18 10
	".....	46	3½	7/-	16 5 2
	Large Coal, old, 4 tons.....			10/7½	2 2 6
	Caster Oil, new, 1 gal.....			2/8	0 2 8
	Kerosene, " ¼ ".....			-/8½	0 0 2
	Tail Oil, " ¼ ".....			2/4½	0 0 7
	Waste, " 2 lb.....			29/4	0 0 6
	Wedges " 26 doz.....			14/2½	2 4 4
	Salaries.....	8	0	51/6	20 12 10
	Electric Light.....	9	0	25/-	11 5 0
	Total.....			.....	£64 5 11

### GOVERNMENT DRY DOCKS, PORT JACKSON.

#### REVISED REGULATIONS AND SCALE OF CHARGES.

##### Conditions.

- All vessels belonging to H.M. Navy, the Colonial Government, and men-of-war of other nations will be admitted to repair in the Government Docks, Sydney Harbour, free of any dock dues or rates, but they will be required to repay all actual expenditure of stores, wages, and material.
- All other vessels will be admitted at the rates shown in the scale of charges below.
- The dock dues will include and cover the cost of pumping, shoring, wedges, and blocking, and the cost of all labour connected with opening and closing the docks, and all incidental labour connected with the actual operation of docking a vessel.
- The Government will not undertake the repairs of a vessel or its machinery; and all parties availing themselves of the use of the docks will be required to make their own arrangements for this service, and provide all necessary labour and material for the same.
- The Government will not hold themselves responsible for any accident occurring to a vessel or her crew whilst docking, undocking, or in dock.
- The officers, crew, and workmen of any vessel whilst in dock will be required strictly to adhere to the Regulations of the Establishment.
- The captain, master, or pilot of a vessel, after making fast to any buoy or bollard off the mouth of the docks, for the purpose of entering, will thenceforth be required to attend to the direction of the officer of the dockyard superintending the docking or undocking of the vessel.
- Applications for the use of the docks will be registered in the order of their receipt, but the Government reserves to itself the right of determining the order of priority in special cases.
- Vessels registered and not arriving at the dock at the appointed time to enter will be liable to the forfeiture of their turn on the register, and will also be held responsible for any expenditure that may have been incurred for the purpose of docking them.
- In future vessels will be admitted into dock on the application of the owner, agent, or master, who will be held responsible for payment of all dues and charges.
- No vessel will be permitted to enter the docks with gunpowder or explosives of any kind on board.
- Any vessel entering or leaving the dock on Sunday shall pay the dock dues as for a week day.
- Vessels not entering, but occupying the dock on a Sunday, and performing any work either inside or outside the vessel which could not be done without docking, shall pay dock dues for the day whether such work is performed by the ship's crew or by contractors, but when no work of any kind is performed about the vessel Sunday will not be charged for.

##### Scale of Charges for Dock Dues.

	Per ton, first day or part of a day.	Per ton, second day and each succeeding day or part of a day.
	s. d.	s. d.
4,000 tons and under .....	0 6	0 4
4,001 ,, to 5,000 tons .....	0 5½	0 3½
5,001 ,, to 6,000 ,, .....	0 5	0 3
6,001 ,, and over .....	0 4½	0 3

Subject to a minimum charge for small vessels of £20 for the first day or part of a day, and £15 per day or part of a day after.

Docking dues start from the time the vessel is clear of the dock sill when coming into dock.

The gross tonnage given in Lloyd's Register, when the vessel's name appears there, is that by which the charges will be calculated.

The Sutherland Dock has from 29 ft. 6 in. to 32 ft. of water over the sill at high water, at neap and spring tides respectively, and is capable of taking in a vessel up to 600 ft. in length; blocks are at present laid for 556 ft.; clear width at entrance, 94 ft.

The Fitzroy Dock has from 19 ft. to 21 ft. 6 in. over the caisson sill at high water, neap and spring tides respectively, and is capable of taking in a vessel 450 ft. in length; width at entrance, 59 ft.

##### Workshops and Machinery.

On application the use of the following machines, etc., may be obtained at the scheduled rates, preference being always given to the requirements of a vessel in dock. These charges will be in addition to dock dues, and will include such labour and material only as the following list declares.

The officer-in-charge of the Establishment will have power to prevent damage to any of the Government plant by removing any incompetent or careless workman, or improper material from the works.

*Schedule*

## Schedule of Rates for the Use of Machinery.

## Engineers' Shop.

	Minimum Charge.	Charge per hour or part of an hour.
	£ s. d.	£ s. d.
5 ft. Centre Lathe .....	1 0 0	0 4 0
9 ft. x 9 ft. x 21 ft. Planing Machine.....	1 0 0	0 4 0
4 ft. x 4 ft. x 11 ft. ....	0 15 0	0 3 0
18 in. Centre Break Lathe.....	0 15 0	0 3 0
13 in. " " .....	0 12 6	0 2 6
12 in. " " .....	0 12 6	0 2 6
10 in. " " .....	0 10 0	0 2 0
9 in. " " .....	0 10 0	0 2 0
7½ in. " " .....	0 7 6	0 1 9
Screw Cutting Machine.....	0 5 0	0 1 0
Slotting Machine.....	0 12 6	0 2 6
Vertical Boring Machine .....	0 10 0	0 2 0
Boring Bar.....	0 10 0	0 2 0
Small Vertical Drill .....	0 7 6	0 1 6
300 ton Hydraulic Jack.....	2 0 0	0 9 0
100 ton " .....	1 0 0	0 4 0
Screw Jack .....	0 7 6	0 1 6
20 ton Blocks and Fall .....	1 0 0	0 4 0
10 ton " .....	0 15 0	0 3 0
5 ton " .....	0 10 0	0 2 0
1 ton " .....	0 7 6	0 1 6
Bench Vices.....	0 5 0	0 1 0

## Boilermakers' Shop.

Punching and Shearing Machine.....	0 15 0	0 3 0
Plate Bending Machine .....	0 12 6	0 2 6
Plate Furnace .....	3 0 0	0 12 0*
Drilling Machine.....	0 7 6	0 1 6
1 cwt. Steam Hammer .....	0 7 6	0 1 6
Forge Fire.....	0 12 6	0 2 6†
Rivet Fire.....	0 5 0	0 1 0*
Tube Expander .....	0 5 0	0 1 0
Boiler Stay Tap .....	0 5 0	0 1 0
Hydraulic Riveting Machine.....	3 0 0	1 10 0
Boiler Bears .....	0 5 0	0 2 6

## Smiths' Shop.

15 cwt. Steam Hammer.....	2 10 0	0 10 0‡
6 cwt. " .....	1 17 6	0 7 6‡
Forge Fire.....	0 12 6	0 2 6†
Coppersmith's Fire .....	0 12 6	0 2 6†

## Shipwrights' Shop.

Circular Saw.....	1 5 0	0 5 0
Band Saw .....	1 5 0	0 5 0
Planing Machine .....	0 15 0	0 3 0
Mortising .....	0 15 0	0 3 0
Combination Joiner.....	0 15 0	0 3 0

\* Including fuel only. † Including fuel and blast. ‡ Including driver, crane, blast, forge, fire, and fuel.

## Dock Gear.

	each	£ s. d.	
Dock Punts .....	each	0 15 0	per day or part of a day.
Rubbish Punts.....	"	0 5 0	" "
Dock Trestles .....	"	0 1 6	" "
Stage Planks.....	"	0 1 0	" "
Four-wheeled Trolleys .....	"	0 5 0	" "
Two-wheeled Trucks .....	"	0 3 6	" "
Hand Trucks.....	"	0 2 6	" "
Wheel-barrows .....	"	0 2 0	" "
Whaling Spades .....	"	0 0 6	" "
Scrapers .....	"	0 0 1	" "
Scrubbers, "Bass's" .....	"	0 0 6	" "
6/0 Paint Brushes .....	"	0 2 0	" "
Long Handles for Brushes .....	"	0 0 1	" "
Chipping Hammers.....	"	0 0 2	" "
Torch or Flare Lamp, with oil .....	"	0 2 6	" "
Hand Lamps, with oil .....	"	0 1 0	" "
Electric Light .....	"	2 10 0	per night or part of a night.

## Cranes.

	Minimum Charge.	Charge per hour or part of an hour.
	£ s. d.	£ s. d.
Dock Steam Travelling Crane .....	1 10 0	0 15 0
20 ton Wharf Steam Jib Crane.....	10 0 0	5 0 0
5 ton Wharf Derrick Crane.....	0 10 0	0 5 0

These Crane Rates include driver, coals, water, and oil for the steam-cranes only; slings, etc., if supplied, will be charged extra.



contracts of longer periods than even six months; I do not think the contractors themselves care to accept contracts for such long periods, owing to the market prices; of course, if they had it for three years they would keep larger stocks; six months is not sufficient time to induce the contractors to keep a large stock in hand, and that increases the delay; the shortness of the contract increases the delay; that could be got over by keeping a larger stock here.

*Periodical Overhauls.*—Mr. Portus would be able to tell better than I whether there are any recognised rules for periodical overhauls similar to those which govern the Mercantile Marine; generally speaking, the vessels are periodically sent here, but it is very seldom that they come, unless something is absolutely needed.

[Mr. Portus explained that he received weekly reports giving the condition of all the different parts of the vessels, and from this information he judged whether an overhaul was necessary.]

*Overhauls.*—A list of the repairs required is sent with the vessel, but if we find on opening up that there are defects which are not in the list we carry them out; sometimes when we open up we find that defects that are mentioned on the list are not needed to be carried out; the nature of the defects determines the amount of work to be done.

[Mr. Portus explained that the Engineer in charge of the plant examines it and fills in a form with the nature of the defects and the cost; that is submitted to the Engineer-in-Chief, and he approves and orders it to be carried out at Fitzroy Dock.]

*Stores.*—We do not supply stores to ships except such as are needed for repairs.

[*Qualifications of Officers and Engineers.*—Mr. Portus explained that the following were the qualifications required of masters and engineers of dredges:—

Position	Pay.	Qualification.
	£	
Engineers .....	252	First-class Engineer's certificate of competency.
Do. ....	228 to 180	Second-class Engineer's certificate of competency.
Do. ....	168	Third-class Engineer's certificate of competency (and to be a Fitter).
Do. ....	156	Third-class Engineer's certificate of competency.
Engine-drivers .....	180 to 168	Third-class Engineer's certificate of competency (and to be a Fitter).
Do. ....	156	Third-class Engineer's certificate of competency.
Masters and Drivers of Launches .....	156 to 144	Third-class Engineer's and Harbour and River Master's certificate of competency.
Masters .....	260	Foreign-going Master's certificate of competency.
Do. ....	252 to 180	Coast Master's certificate of competency.
Do. ....	168 to 156	Harbour and River Master's certificate of competency (and to be an A.B.)
Mates of Dredges .....	180	For hopper sand dredges—Coast Master's certificate. For other dredges—Coast Mate's certificate of competency.
Do. ....	168	Coast Mate's certificate of competency, or Harbour and River Master's certificate of competency (and to be an A.B.)
Mates of Steamers .....	144	Foreign-going Mate's certificate of competency.

When the ships are laid up it does not affect the pay of the officers employed in any way; except they are required to supervise the work; they are sent away in other vessels; the engineer remains in charge of the work to be carried out; when a vessel is laid up for three months for cutting down or something special, she is handed over to Mr. Broad; nothing extra is allowed the officers when the ship is laid up.]

Mr. Broad continued:

*Overtime.*—The Foremen do not get extra pay for overtime; they are here whenever they are wanted.

*Instructions to Officers.*—None of the responsible officers have been furnished with instructions relating to their duties; they get all their instructions from me verbally.

*Ferrying the Men.*—The men pay nothing for their carriage to and from work in the Government launch; the Atlas Works charged 1s. 6d. a week to their men.

*Fire Prevention.*—The only fire prevention appliances are the hoses laid about here; I do not consider them sufficient.

[Mr. Broad was asked to embody suggestions on this subject in the report he was preparing.]

*Lifting Appliances: Cranes.*—The only appliances for lifting heavy weights, such as propellers and shafts, are the cranes at the big dock; the inner one will lift 5 tons; we can get one on each side; we could not lift a portion of a rudder weighing 10 tons; we should have to put up special gear and tackle on board the ship; they usually have the means on the ship, but it takes a long time; those cranes travel along the old dock as well as the new, there are no other lifting appliances but those; I do not think the 30-ton floating crane could be made available; up to the present we have not had to do any big work for these vessels; it is let by contract, and the contractor does that sort of thing.

*Telephone.*—We now have the telephone connected directly with the Exchange at Balmain, as well as through the Head Office; we can also communicate with the Fire Brigade direct, day or night.

*Pumping Gear.*—I am not satisfied with the old pumps here; we will shortly have to get centrifugal pumps for the big dock; the present pumps are rusting very badly down below, and give us some trouble; they are very expensive; we have fresh boilers now; the tubes in the old boilers kept giving out very quickly; Gibson is the officer who keeps the pumps in good order; the engineer on the job looks after the boilers; he came here to erect them, and has been on the job ever since; he cleans the boilers out almost every time after pumping; the last inspection was done by the man up there; he cannot get into the boilers to do any work; they are tubular boilers; you put a candle down  
below



below and scrape the mud out; they are pocketed already in the bottom, and I have put in scores of new tubes; that is why I got new boilers; we have not kept a sketch of the boilers and marked the tubes that gave way; some of them cut right through in six weeks; we have not got a drawing of the boilers, nor of the machinery; they are the Colonial type of boilers; the fresh boilers we have are not new, but they were boilers the Government had in hand; they have 32 Galloway tubes in each; I was told to get prices for them, and the highest offer was £75 for the two; the old boilers were giving a lot of trouble, and I got permission to put these in; one of the floats in the pump is not answering very well, and we are taking it out and putting the ordinary valve in; I do not think it necessary to put a certificated engineer in charge of the boilers; if any accident happens I take the whole responsibility, and in return I demand full submission from every man here; there is a first-class mechanic on the job; I do not know whether he has got a certificate, but still he has served his time; the boilers came down in pockets just after they were here; I do not like them being pocketed down like that; they are externally fired; I do not think you can beat this man; he came here from Smail's as a fitter to assist in the erection.

*Docking Men-of-War.*—When men-of-war are in dock all work required below the waterline is done by our staff; it used to be done by the outside people; they would call for tenders for it; it is only little finicking work that we do below the waterline; anything of any magnitude is let out; we do not want to do anything here; we cast some zincs and put them in; some years ago a ship came in and occupied the dock for a considerably longer period than she should; I complained to the Engineer-in-Chief that all the work necessitating the ship's staying in dock should be done by us, so that we could get her out; we do not want to interfere with private enterprise.

[Mr. Portus explained that the Government rates were so arranged that they could not compete with private firms for any work that those firms could do, but for any work that those private people could not do the rates were lower than were charged in other colonies so as to induce shipping to come here.]

*Salaries Charged.*—If there is one vessel in dock she pays the full amount of salaries; if there are two vessels in the dock still pays the same amount of salaries, but they are divided between the two vessels; the same is done with the cost of the electric light; the bare time of the men is charged and all that is received from the ships goes back into the Treasury as revenue.

*Accounts.*—We do not send the detail of our accounts to Head Office in this form (*looking at an account from Mori's Dock*); we could give it all like that but it would necessitate extra clerical assistance; our cost book gives much more detail than the cost book at Head Office; all the returns for the "Galatea" are not in yet—the vouchers for the material; I can give you the approximate cost.

(Witness retired.)

Mr. John Pratt, Dock Superintendent, was called. In reply to questions he stated: I have been here since 1891.

*Docking Ships.*—Mr. Broad gives me a written notice that such and such a ship is coming into dock at a certain time on a certain date; the time of leaving the dock is arranged between the captain and myself; I have nothing to do with making up the charges; I send in the time the vessel comes in and the time she goes out.

*Stores.*—We have a certain amount of stock timber here, and if I am short I have to requisition for it; I send an order over to the store and I have got to wait till it comes; if the timber is in stock I make out a docket, send it in to the store and get the material; that is charged against the ship that uses it; if it is an out-of-the-way piece that they have not got in stock I make out an order on a separate piece of paper and send it to the store; the storekeeper makes out a requisition and sends it to the Head Office; I have nothing to do with it after that; I have to wait till the material comes to hand; I will give you an instance; the following timber was requisitioned for on Requisition 25th June, 1898, by Mr. Orr:—

Ironbark keel	...	...	...	...	1/57—6 x 5
Keelson	...	...	...	...	1/57—5 x 5
Rudder post	...	...	...	...	1/7—10 x 11
"	...	...	...	...	1/8—8 x 5
Stringer	...	...	...	...	2/60—9 x 1½
Boiler bed	...	...	...	...	2/37—8 x 7
Decking	...	...	...	...	1,560 lineal feet 4 x 2 decking
"	...	...	...	...	2/36—12 x 1½ kauri
"	...	...	...	...	2/30—12 x 1½ kauri
Hull plank	...	...	...	...	700 lineal feet, 8 x 1½ kauri
"	...	...	...	...	1,300 lineal feet, 10 x 1½ kauri
"	...	...	...	...	4/60—6 x 1½ Oregon

I have not seen it yet; the very first thing that should be here is the hull planking and the deck planking; it is not here yet, and that is five months ago; on the 18th July, 1895, I ordered 5,000 ft. of 5 x 2½ kauri decking, and that has not arrived yet; that was for stock; here is the "Orestes" here now for a new deck and I have not got it; there is time enough to send to England for it in five months; I have a certain amount in stock, but not enough to complete; they tell me that I am not to keep a stock of timber here; it must be in the contractors' yard; well, here is the result; Goodlet and Smith are the contractors; here is a piece of hardwood 7 ft. long 10 x 7 and I cannot get it; I want two pieces for the "Powerful," and I cannot get the stern frame up without them; we are just simply playing with the job as we are going on now, putting men on and off as the timber arrives; we have a good sized store but there is not sufficient in it to keep this place going; this difficulty in not being able to get stock applies to most of my work; it has been the case ever since I came here; it appears to me to be getting worse; I have had this job on the "Powerful" for five months now; the timber that is here is falling to pieces for want of putting in its place; I have spoken about it till I am tired; I am always speaking about it; Buddle does all he can do to get it;

he

he goes to the contractors and they tell him it is in the harbour, but we cannot get it; they will not send the punt up specially with one piece; we are in an out-of-the-way place, and unless there is sufficient to send the punt with I do not suppose they will send it; we had men working on the "Powerful" and had to take them off because there was not the material; a few crooks have been delivered for the Marine Board launch, and that is all; we have not started on that for want of timber; I can do nothing without the keel; I have had these jobs for five months waiting for the timber, and all of it, except the kauri planking, is practically procurable in New South Wales; it can be got from the Northern rivers; there was a man came here one day and said he could supply anything we liked to order; I sent him down to Mr. Portus; I do not know his name; Mr. Orr ordered all this timber; these are copies of his requisitions; so far as I am concerned I am practically helpless without this timber; I can do nothing more personally to get it; if I went to see the contractor I would be exceeding my duty; I have not got written instructions as to my duty.

*Labour Contracts and Day Labour.*—There were two punts built here by labour contracts in my time; they were sublet by the late Superintendent, except the jetties in Erskine street; the work was done satisfactorily, but I got into hot water for trying to get what was right; the contractors complained to the head of the Department that I was treating them unfairly and that sort of thing; of course I did not hear anything of it back, but it was done; I can do the work cheaper by day labour; take the last punt I built for Darling Harbour, and compare the cost of that with one done by Mr. Ford at Berry's Bay; the anchor boats are built here by piecework, which comes out as cheap as building them by day labour; if the work is given out elsewhere to be done I have either got to supervise it or send it to a man to supervise it; if it is done under my supervision here I can save all that expense; there was a delay in the timber when the pontoons were being built; I could not say who were the contractors then; there is a clause in the specification that if the timber is not supplied in a certain time it can be bought elsewhere; but there is always a loophole to get through these things; the contractor has only to go to Head Office and say that he cannot do that and he cannot do this, and he gets an extension of time.

[Mr. Portus read the penalty clause, as under:—In the event of contractor failing to deliver or despatch articles or materials ordered, as specified above, within two clear days of receipt of order, the officer, or his authorised representative, shall have power, without any further reference or notice to the contractor, to purchase such articles or materials elsewhere at the contractor's risk and expense; and should it not be possible to procure articles or materials of the kind or quality ordered, the officer shall be entitled to obtain, at the contractor's risk and expense, articles or materials of the next higher quality, kind, or make procurable, which in the officer's opinion may be suitable.]

Mr. Pratt continued:—The Head Office has the carrying out of that; I could not say whether Morrison is in the same fix for timber for the steamer he is building for the Department as we are; I want about 3 cwt. of  $2\frac{1}{2}$  x  $\frac{1}{2}$  cheese bolts and nuts now, and they cannot be got in the country; they are in contract; that is for a job that is waiting to be gone on with now; they do not keep enough in stock here of bolts and nuts; if I get any sort of a job here it takes 3 or 4 cwt. of bolts and nuts; I cannot send in an order for a large amount of stock, for I do not know what job is coming in; they tell me I have got no authority and no responsibility; I recollect Mr. Portus telling me that I could order £500 worth of timber; I did so, but they will turn round and say, "What do you want it for?" I cannot say, "The 'Orestes' is coming here," because I do not know that she is; twelve months ago I spoke to her captain, and asked him to let me know whether Mr. Hamilton was going to get this done, so that I could get the timber in stock; I was not told, and now the ship is here and I have not got half the material for it; if Mr. Broad asked me every six months to make out a list of what I considered necessary to put in stock for our work I could do it; I am in a position, from my knowledge of the work and of the ships and their condition, to do that; such a system as that would be a material improvement on the present practice, and it could be done without any trouble; I am told I am to order everything direct for the job; that means that I have to be the storekeeper; when any material is ordered direct I have to take charge of it and store it in the shed, which I consider should not be.

*Personal—Mr. Pratt.*—I cannot be on my job as much as I would like, because these two docks keep us going; I have got an assistant to help me, but he is not appointed assistant; we very seldom have the dock empty; there were 121,713 tons docked last year—15 warships, 19 steamers, 2 sailing vessels; that does not include the tugs and punts belonging to the Department; the last week in last month I was fully occupied the whole of the week, and could not leave the dock for anything; I will tell you what I did: on the 21st October I undocked the "Boomerang" and "Karrakatta," and cleared the dock of shores, &c.; on the 22nd I docked the "Glaucus"; on the 23rd (Sunday) I undocked the steamship "Glaucus" and cleared the dock; on the 24th I docked the "Willyama"; on the 25th I undocked the "Willyama" and cleared the dock, I took in the "Warrnambool," I undocked the "Warrnambool" at half-past 3 in the afternoon, I put the "Galatea" in the dock and pumped it down to nine feet; that is one day's work; on the 26th I docked the "Galatea"; on the 27th I undocked the "Mohawk" from the Fitzroy Dock, and I put the caisson in its place and pumped the dock dry and fixed the blocks, I filled the dock, put in No. 3 barge, No. 30 barge, the drill punt and the "Athena," pumped the dock down to six feet; on the 28th I finished docking the barges, the punt and the "Athena"; the whole of that time I could not leave the dock except for a very short time, yet I was supposed to be looking after other work too; that represents a total of about 7,910 tons roughly in one week; that was a busy week; in that week I did twenty-three hours' overtime, besides my day's work, Sundays included; everybody else in the Service who works overtime or on Sundays gets paid for it; that twenty-three hours is calculated as if it had been a shipwright working on the job; it is about eighteen hours actual time.

*Docking Warships.*—The cost of the work is very much increased by the warships sometimes wanting both docks at once, and our having to work overtime on whatever jobs are in, so as to get them out for the men-o'-war to come in; everything has to give way to the Imperial work; the overtime thus caused is not charged to the warships, but to the work on which it is done; shipwrights are charged for eight days one and three-quarter hours patching the copper on the "Royal Arthur" when she was docked she was here nine days; that was all the time they were at her.

*Stores—Timber—Machinery.*—An engine-bed has been put down for a saw-mill so that we can get timber and cut it ourselves ; they talk about getting a breaking-down saw ; I do not know whether they intend getting one. The biggest piece of wood I can cut with the circular saw I have is 8 in. ; I have a very good band-saw, but it is only good for certain purposes.

[Mr. Pratt was asked to submit in writing suggestions about the docking of the ships or the working of the Establishment which would conduce to better management or greater economy.]

Mr. Pratt continued :—

*Assistant.*—I have an assistant, but he is not recognised in any way by the Department ; he is simply selected by me to represent me on the job when I am away ; I do not see why he should not be recognised ; this place has grown.

[Mr. Pratt was informed that this should be included in his suggestions.]

He continued :—

*Docking Appliances—Cranes, &c.*—The appliances for docking ships are quite up to date ; I have no complaint whatever to make ; the old dock has none too much water, but still we can manage all right ; we have plenty of staging ; we are not stinted for material in any way ; we have been complimented by every ship that has come here on our docking arrangements. For lifting heavy weights they have generally got their own steam on board—their own winches ; we can lift 4 tons, a straight lift ; that is the maximum.

*Stores—Timber—Delays.*—I think the General Superintendent ought to have power to send straight to the contractor for the timber ; there is so much paper work ; it has to go through so many hands down below that it is weeks or months before you get satisfaction ; Mr. Orr can tell you more about it than anybody else ; the contractor gave this order to somebody else to supply the timber, and he has failed too ; that 5,000 ft. 5 x 2½ ordered in June last was for stock and was ordered after my conversation with Mr. Portus when he told me to order £500 worth ; the timber wants seasoning, and that is the reason we should have it here and proper sheds to put it in ; we should order it before it is wanted, and keep all the standard sizes in stock ; the proper thing for these keels would be to get timber here in log and cut it ; give me a proper breaking-down saw and the machinery ; I want a planing-machine, too.

*Slip.*—It would be advisable to have a slip here for small vessels about the size of the *Thetis* ; there is a place near the carpenters' shop naturally cut out for a slip ; there is very deep water there ; a foundation of piles would have to be put down the same as at Mort's ; there would be little or no excavating to be done.

(Witness retired.)

[The Committee then inspected the carpenters' shop, the saw-mill, the site for a slip, the frame of the "Powerful," Fitzroy and Sutherland Docks, and the pumping.]

At 5·30 they adjourned until 2 p.m. on Wednesday the 10th instant.

PARTICULARS supplied by Mort's Dock and Engineering Company, Limited, as to rates of wages paid to certain classes of employees in their establishment.

[NOTE.—As the above particulars were supplied on the understanding that they would be regarded as confidential, they have been omitted.]

#### THURSDAY, 17 NOVEMBER, 1898.

The Committee met at 2 p.m. at Prince's Stairs, Circular Quay, and proceeded in the steam launch "Leila" to Cockatoo Island, where a meeting was held in the Board Room at 2·30 p.m.

PRESENT :

MR. R. POLLOCK, Chairman.

MR. W. D. CRUICKSHANK. | MR. A. B. PORTUS.

The minutes of the previous meeting were read and confirmed.

The Secretary reported having prepared from the published list of railway employees for 1897 a statement of the wages paid to foremen and mechanics in that Department (see pages 42 and 43). He also reported having written to the Secretary for Railways asking for similar information for the present year, and reported, further, the receipt from the Public Works Department of the copies of accounts in connection with the docking of the "Captain Cook" and "Galatea," as previously asked for.

Mr. Portus said he had made inquiries at Head Office about the delay in the supply of stores, and had been referred to Mr. Steel ; that gentleman had explained the circumstances to him and had offered to come and give evidence on the subject, and also with regard to the method of rendering the accounts.

It was then decided not to take Mr. Steel's evidence until after that of all the employees on the Island connected with the questions at issue had been taken.

Mr. John Pratt, Dock Superintendent, recalled, stated in reply to questions :—

*Docking Merchant Vessels.*—The German ship "Friederich der Grosse" pays full dock dues, so much per ton, the same as at Mort's ; we do not make any charge for the stores or anything of that sort ; punts, staging, trestles, &c., are charged so much each per day ; if I want material for docking purposes—say, shores—I order so much timber for the Sutherland Dock, or for the Fitzroy Dock : in my time-book would be entered, "Docking 'Friederich der Grosse,' so many carpenters, so many labourers, such and such a time" ; I send it to the office then ; that is how I put it in my time-book ; I do not know how the charges are made up ; I know what it costs to dock a ship, but what it is when the bill is made up I do not know.

*Stores—*

*Stores—Timber.*—Yesterday afternoon they sent me some more timber, and it would be just as well if you went over and had a look at it; it is for various jobs, for the Marine Board launch the "Powerful," and stock; if I send it back I will get into trouble; it is not fit to receive; the contractors will go down to Head Office and slate me in all directions; I do not care about that, provided they go the proper way about it; I am quite ready for anybody if they go the right way about it, but not if they go behind my back; the material supplied is not fit for the purpose for which it was ordered; there are a few crooks that I condemned before and they are sent back now, and they are not fit to go into the vessel; Mr. Goodlet will go down and complain to the Head of the Department and say everything is bad, because I do not receive what he likes to send; all the timber ordered for the "Powerful" is not out of contract; all the short lengths are in contract; 26 ft. is the limit; 57 ft. is out of contract; the contractor has got to supply the crooks for the Marine Board launch; everything except the keel and keelson is in contract; Mort's Dock had to get their own breaking-down saw and cut their own logs; if they wanted a piece of timber a big size they could not get it; they have their own logs, and they can get any size of timber they want within two hours; in an establishment like this we should have it too; I went to Watkin and Watkin's and got a price for a saw for £95; we want a boiler to burn saw-dust and timber, as well as coal.

[Mr. Pratt was asked to prepare, for the information of the Committee, a list of the vessels docked during the last twelve months.]

Mr. John Gibson, Foreman Engineer, stated in reply to questions:—I have been here twenty-four years.

*Ferrying the Men.*—The men travel backwards and forwards in their own time; they have eight hours' work here.

*Stores.*—If a man wants a file or anything he comes to me; if I am away I leave a slate; I have a docket made out for that, and put on the docket what job it is for; after I sign it the docket goes to the store; I do not allow the man who wants the file to keep running backwards and forwards, but I have a man who gets the things from the store and takes them to those who want them; I understand the storekeeper charges that file to that job.

*Time-taking.*—Every man in the shop has a board issued to him, and whatever job he is working on, wherever he is, he puts that particular job on his board; in the morning all the boards are brought in and I have them all entered up into my time-book in detail; that goes into the office and is copied off into their books, so I know how many hours a man has been on each job; the same with the tools and the machines; if a man is working on a job on a lathe, he puts down so many hours on the lathe and so many hours on the drilling machine on the work that he is on.

*Stores.*—The same with the material; if it is only 2 lb. weight it is all charged to that particular job; we get the iron out of the store with a docket, cut off what we want, and take the rest back.

*Assistants—Foremen.*—I have an assistant named Stewart; he attends to the work outside and runs about, because I am not able to go out to all the jobs; of course, I have to go out sometimes to set off work and give instructions as to what is to be done, and he carries out my orders; we supervise the work in the engineers' shop and the machine and blacksmiths' shops, and the plumbers and coppersmiths' work; all these, and the moulders and patternmakers, are under my charge; of course, since Mr. Kidd was brought here he has always done duty as a foreman, although he has never been made a foreman, and I have always left it to him; it is impossible for me to look after these men; I have always left it in his charge; he was selected as the best man in New South Wales; my opinion of him is that he could not be beaten in New South Wales; he is a thoroughly practical man; you can take him aboard to any part of the machinery or vessel or tug and tell him you want so and so made, and he can do that, and make it just as you want it; the trouble is that he has never been put down in our books as a foreman, never been looked upon as a foreman, and he thinks it hard that he should be doing a foreman's work and not put down as a foreman; he is not altogether dissatisfied with the pay, 13s. 4d. a day; I might mention that if ever there is a vacancy at a firm in Sydney we will lose him; Stewart is not acknowledged as a foreman; he is only a leading hand; he gets 1s. a day extra; I do not think it is enough; I asked for 2s. a day for him; his pay is 11s.; there are five patternmakers, including Mr. Kidd and two boys; for the last two years we have had constant work, but just now things are a bit slack; however, we have just received orders to go on with some other work, and we will be able to keep him going for some time.

*Machinery.*—I do not think we have a sufficiency of machinery; we have been working overtime for the last two-and-a-half years; we have worked from 5 to 10 and from 4 to 10, and 4 to 9 for months upon months; we have to take on a number of fitters to work on the jobs outside, and we are so short of machines that we must keep the machines going overtime to keep the fitters employed; we get a whole lot of dredges here to be done at once; we take on a lot of fitters and we have not got machines to keep them going; what we principally want are lathes; we have cleared out the back shop to make room for more lathes; we have had three lathes on order for eighteen months or two years, but they will not be enough to keep up with the work we have here; I have asked Mr. Broad several times, and he does not seem to get any information; one is an 18 in. gap lathe, to take in 25 ft. outside chuck work, another is a 10 in. centre lathe, and the third is an 8 in. brass finishing lathe; we have any amount of power, 14 in. cylinders with 2 ft. 3 in. stroke; of course, we only use one boiler, but I told Mr. Broad the other day we must use two boilers; we have two in the place; we must use the two, because if we take a few blows with the steam-hammer we cannot make steam quickly enough to keep all going.

*Supervision of Men—Assistants.*—When I am busy with a couple of warships in the big dock, vessels in the old dock, and sand-pumps, such as the "Castor," fitting up, I have three or four first-class men whom I take and point out to them what has to be done, and tell them I expect them to look after the work and do their best; they are leading hands, but they do not get anything extra for it; they receive 10s. per day; there are some machinists who are paid a little more than that; none of the fitters are paid more than that except Stewart, my assistant; I have a man named Morrison, who is down supervising the job at Darling Island, and I have the two Thompsons, real first-class men, and I always put them in charge of a job if I have a dredge to fit out; I go down, or send my assistant, to see how things are going and report to me.

*Pumping*

*Pumping Engines—New Dock.*—I might go up once a day, or once in two or three days, to the engines at the new dock ; it all depends on whether there is anything wrong.

*Supervision, &c.*—If I am away from the shop for a few minutes it is when Stewart is about ; when there are a number of outside jobs to supervise, Stewart travels from one to another ; he cannot be with them all ; we have fifty fitters ; the work is not all outside ; the supervision lies between Stewart and me ; I have a man supervising the coppersmith work named Vale ; he has been here a number of years, and is a first-class workman ; he gets nothing extra for it ; I do not think that it is a sufficient inducement ; it would not do for me to make any recommendation for extra pay for him, because I do not know whether he would get it or not ; I recommended Stewart for 12s. a day and he only got 11s.

*Personal—Mr. Gibson.*—I am here every morning long before 6 o'clock ; I have no time to waste ; I have too much to do ; I have had the blacksmiths' work to supervise for the last thirteen years ; there are eleven blacksmiths and fourteen strikers, one improver, and a boy striking for him ; I have no leading blacksmith, but there are two leading men, who get 12s. a day, and if they see anything wrong in the shop they always inform me, and I know what to do.

*Boilers.*—If an accident happened to the boilers in the shop—an explosion—I suppose I would take the responsibility myself to a certain extent, but only partially, because Mr. Broad is the responsible man ; I am under his supervision ; Mr. Fletcher goes into the boilers to examine them, and he tests them ; the responsibility for the explosion which took place some time ago was fixed on Mr. Hoey ; that boiler of Mr. Pratt's was examined by Mr. Fletcher, and the boilers at the new dock are cleaned out every two months ; they are washed out ; you cannot get into them ; when they require to be pressed Mr. Fletcher has it done ; we have had steam on the new boilers, but we are making alterations in the safety valves, but those boilers were got for here ; they were to be put in here to supply the whole of the works, but as it is we have a boiler here and an upright boiler there that burns three times the coal we are burning ; it is just a vertical boiler they had at the Darling Harbour lifts for lifting coal.

*Warships in Dock.*—It frequently happens that we have to work overtime on our work to let the warships get into the docks at a certain time, and that adds to the cost of the work ; the overtime is not charged to the warships, but to the work it is done on.

*Small Tools—Machinery.*—We have a fair stock of small tools, such as rimers, dies, and drills, but at the time I put in for these lathes I put in for another screwing machine, but for some reason I found that it was crossed out ; we have only one screwing machine to do the whole of our work ; it is a modern machine ; you can cut a two-inch bolt up with one cut, but I have put in for a screwing machine and for a nut-tapping machine, and the nut-tapping machine was left on the list and the screwing machine was knocked off ; that nut-tapping machine has not arrived yet ; we are just receiving a bolt-making machine ; we have it erected, but we are making a new pulley, but we only received three pairs of dies with it, and not even a furnace for heating the iron, and two pairs of those dies are cracked in hardening, so it is useless to us ; a report has gone through to the Engineer-in-Chief, and they are going to communicate with the people at Home that supplied it, and that means it will lie there now for eighteen months.

*Dredges.*—A lot of the dredges come here at once ; we have had as many as five different dredge plants lying alongside those wharves at the same time ; in my opinion that is one of the main causes of this overtime ; we have not got the tools to do the work ; there is the "Acheron" dredge ; she is fitted up now ; we had the "Hunter" here about two years ago ; some time ago we had the "Jupiter" and the "Ceres" here together, and we had the "Castor" ; the "Castor" was a new job, a stand-by job ; we were not pressed to work overtime on her, but we did so ; we had the "Sydney" here ; if I had known you wanted these things I would have got them out ; I have mentioned it to Mr. Portus once before.

Mr. Portus : I have certainly tried to obviate it if you did.

Witness (continuing) : I could not mention the names just now, but I know it was very hard on me ; not only that, but we had other work to do, and that made it worse ; you (Mr. Portus) often do consult me when you have a steamer coming down and ask me how I am off for work ; I have not seen a slack period here for three years ; we have had a big run of work, and of course those sand pumps that we erected here gave a lot of extra work ; we had a lot of work for the country towns water supplies and points and crossings for the George and Harris streets tramways, and that handicapped us to some extent, because it used two of my planing machines and a shaping machine and sometimes two drilling machines ; we have not done much for the Water and Sewerage Board ; six or seven years ago we did not work for the Marine Board, but for the last two and a half years we have done practically all their work ; the "Captain Cook" comes here to be docked and repaired ; the war vessels have been just about the same for the last six or seven years.

*Overtime.*—To reduce the overtime I would suggest that we get three more lathes besides what we already have, a screwing machine, and a slotting machine ; I drew a list up and handed it to Mr. Broad ; the blacksmiths have done an immense amount of overtime ; it would assist me if some responsible men were placed over them and the coppersmiths and others ; you cannot stop talking in any shop in the world.

[Mr. Gibson was asked to submit in writing a list of the tools he requires in order to do away, as far as possible, with the working of overtime, and suggestions of how the works might be better managed.]

*Pumping Machines.*—I do not think it will be long before the pumping machinery will all collapse ; we have had to stay it down below in many cases, and the valve faces are worn out—the suction and the discharge valves ; I suggest that we should put down a good centrifugal pump and do away with this altogether ; my opinion is that they will give way some time and we will be left in the lurch ; I am doing all I know to keep the thing in as perfect order as I can ; I have asked Mr. Hoey times out of number to put it to the Engineer-in-Chief to get a plant up ready to take the place of this, and I have suggested it to Mr. Broad too ; although the plant is in duplicate you have not the slightest idea of the work and trouble there is to keep it in order ; the pumping machine there now is not a good one—it is not reliable ; that is my experience of it ; we have to keep constantly putting in new valve faces ; I think I have eight or ten ready now to put in at any time—you can see it for yourselves ; from what I have seen I do not think that any repair would be sufficient to make the machinery efficient—I think it should be renewed ; when no ship is in it takes 4½ hours to pump the dock out ; we try to keep to the same time in pumping out ; it is just

just as well to keep the machinery going as to let it jog slowly; I make the man up there keep a log-book of every pumping and the ship it is for; he keeps a log of the coal he burns and everything; he is a first-class mechanic named Langford; he is one of the men who came out and erected the machinery under Smail; we had great difficulty at first with the suction-valves—they all shifted; the cast-iron frames were giving way; I had to put in great big girders, and now the studs are giving way; we made four new studs last week; the plungers themselves have never been lifted from the pumps, and they are wearing very badly; the stroke of the pump is longer than the stroke of the engine; you ought to see those things vibrate and kick about when we are doing the pumping of the lower part of the dock; we have had to put the struts on to support the frame; you will see that disc when it comes to the top go like this (*indicating with a jerk of the hand*).

*Boilers—Pumping Machinery.*—The boilers are now in a bad condition, and that is the reason we got the two new ones; and the tubes are bad, and one or two of them have got a little bit of a pocket in them; several new tubes have been put in; we did one pumping with the new boilers, and they went very badly, but that is because the railway people painted them inside, which caused them to be very dirty; I did not go into the matter to see whether they were big enough, but I understand Mr. Broad did; the pressure of steam is the same in the new as the old boilers—80 lb.; the cylinder is 40 inches; we have the expansion gear, which cuts off at different parts of the dock (stroke?) as it is pumping; the number of revolutions varies from twenty-four at the first, when the dock is full, to fifteen at the last; the stroke of the pump is 6 feet, but the stroke of the engine is only about 4 feet. (For particulars of engine, &c., see page 43.)

*Lifting Appliances.*—We have never been put to any inconvenience in the new dock for want of lifting appliances; we have never had any big jobs there; we can lift up to 30 cwt. or 2 tons with the cranes we have, which were made for lifting the shores; there ought to be some bigger cranes; wherever you see a big dock you see appliances for lifting big weights.

*Stores, Bolts, Nuts, &c.*—When I want stores I have to make out an order, "I want so and so for such a job," and send it to the Storekeeper; he makes out a requisition and sends it to Sydney, and we have to wait till it comes; sometimes we have waited as much as three weeks or a fortnight for a few bolts or for a special iron that we wanted; there was some 7½ in. x 1 in. flat iron one time we waited five weeks for; Mr. Buddle is here every morning before breakfast; I asked him every day if he had succeeded in getting the iron; he says he always does his best; they are not allowed to get anything now without an order from Head Office; that is always the plea—"It has not passed the Head Office, and we cannot get the stuff"; they keep a pretty fair stock of bolts and nuts of a small size in the place; we do not have to wait for them; they do not stock longer than 1 inch in diameter, and about 4 inches in length; if an extra large size is wanted it must be ordered through Head Office; the orders are sent to Head Office by post, and Buddle gets them from there and then hunts the stuff up; when a thing of that kind is wanted, I often ask Buddle to see if he cannot get it up next day; he does so, but is not supposed to without the order; the worst people we have to deal with are Millen's, in Sussex-street, for engine fittings; whatever we order in the way of cocks, valves, &c., we have to wait a fortnight for always; they have got an order for one 3-in. right-angled stock valve, cast iron, dozens of which you can pick up in town, and we have had to wait a fortnight for it; Buddle has no power to go and say, "There is a valve at Briscoe and Drysdale's," or somebody else's, and suggest that they should buy it, but he does do it; I ordered an injector, and it took three weeks to get it; I have ordered another, and I do not know when I will get it; I do not know who it is that determines what amount of stock should be kept; I walk in and say, "Look here, you have only got one of so and so—you had better order some more"; if I were asked to make out a list of stock required twice a year I could do so, and that would be a great advantage, but then there is another thing to be looked at—perhaps, now we have had such a run of work, we may be slack for a long time, and may not require the stock.

*Cost of Work.*—We can do our work as cheaply as outside firms, providing they give us the proper machinery to do it with, but not if we have to keep doing overtime; I think we can build boats as cheaply as they are tendered for; we lengthened the "Castor" here, but that was under Mr. Fletcher; we are making two steam winches here, and the cost will be less than if made elsewhere; one has 4 in. double cylinders, the other 6 in.; there is one in the shop there being repaired; you might as well say it is new; there are only the two cylinders and the shafts out of the old one in it; the cost of the little winch will be £65; it has got a clutch and brake, double purchase, to it; I made eight diagonal winches right off one time, cheaper than they could be bought at Mort's.

*Stores.*—I do not think Mr. Broad has ever declined to order articles which I have suggested should be kept in stock; when I find a lot of valves and things wanted I go straight to the stores and see if they are there; if they are not there I make out an order straight away; the Storekeeper has got orders to keep the stock down low.

*Sawing Machinery.*—We have got the bed fixed for the sawing machinery for the carpenters' shop, and have fixed the engine pretty well as far as we can go; a new boiler has to be built for it; the drawing for that has been in hand for two or three weeks, but I think Mr. Martin has it complete, now; it is two months since I started putting that engine down; I can do no more at present.

*Drafting Work.*—I do not think Martin is a mechanical draftsman; there should be one here; any sketches that are required are done between me and Mr. Kidd; if I want a drawing or a hand sketch I have to do it myself; Martin is under me as a fitter, but he has been working up here as a draftsman for two and a half years; Mr. Broad took him out of the shop.

*Personal.—Mr. Gibson.*—I have had to work night and day for the last two and a half years; it was remarked to me that when I was away my men did not work when on overtime, so I have always stopped with them; I have never received a penny for it; my present pay is £300 a year; previously I had £320; the first reduction took place at the time of the 10 per cent. reduction (1893), and then when the Public Service Board came in they reduced me again, another £8; I believe Mr. Hickson and Mr. Barling were the cause of my doing blacksmith work; a man named Williams, at £275 a year, was here

over them; I have been slaving at that ever since; I asked the Engineer-in-Chief to make me an allowance for overtime, and he told me to write in and explain it all to him; that was about eighteen months ago, and I have heard nothing more of it; I would not ask for overtime if they had left my salary alone.

[The Committee then inspected, at Mr. Pratt's request, some timber just received from the contractors, a portion of which he considered unfit for use.]

At 5 p.m. the Committee adjourned until 2 p.m. the following day.

WAGES PAID AT RAILWAY WORKSHOPS.

Works Manager (Howe), Sydney .....	£550
"    (Pilfold) Newcastle .....	350
Foreman, Eveleigh .....	375
Assistant Foreman, Eveleigh .....	340
Foreman Boilermaker, " .....	365
"    Assistant, Eveleigh .....	275
"    Moulder, Eveleigh .....	300
"    Blacksmith, " .....	315
"    Turner, " .....	275
"    Painter, " .....	290
"    Ironworker " .....	260
Foreman, Eveleigh .....	225
Foreman (Carshop), Newcastle .....	305
"    (Boilershop), " .....	300
"    (Workshops), " .....	275
Timekeepers, Eveleigh—£305, £265, £170, £165, £150, £150, £200, £150.	
"    Country—£165, £175, £175, £165, £200, £200, £140, £180, £170, £150.	

MECHANICS, EVELEIGH WORKSHOP.

Strikers.....per day	7/6, 8/-, 8/2, 7/-, 6/8
Machinists....."	10/-, 9/8, 9/6, 9/-, 8/-, 8/6, 7/-
Drillers....."	9/2, 8/2, 8/-, 7/6, 6/-
Labourers....."	7/6, 7/-
Storemen....."	8/-, 7/-
Shop Boys....."	5/-, 2/6, 2/-
Wheel Turners....."	12/8, 11/8, 11/2, 11/-, 10/6, 8/-
General Turners....."	11/8, 11/2, 11/-, 10/8, 10/6, 10/4, 10/-
Turners....."	10/-, 9/4, 8/-
"    Improvers....."	7/-
Fitters....."	13/-, 12/-, 12/4, 11/8, 11/6, 11/-, 10/8, 10/6, 10/4, 10/2, 10/-, 9/4, 8/-
Fitters' Improvers....."	7/-
Steam Hammer Smiths....."	16/-, 15/-
Blacksmiths....."	12/8, 12/2, 11/8, 11/2, 11/-, 10/8, 10/2, 10/-, 8/-
Blacksmiths' Improvers....."	7/-
Furnacemen....."	10/8, 10/-
Boilermakers....."	12/8, 11/6, 11/2, 11/-, 10/8, 10/6, 10/-, 9/4, 8/-
Boilermakers' Improvers....."	7/-
"    Assistants....."	7/6, 7/-, 6/6, 6/8
Stationary Engine Driver..."	8/-
Brassmoulder....."	14/-, 11/-, 10/6, 9/4
Ironmoulder....."	11/-, 11/2, 10/-, 9/4, 10/6
Patternmaker....."	16/-, 11/2
Carpenter....."	11/-, 10/6, 10/-, 8/8, 7/6
Tinsmith....."	10/8, 10/8, 10/-, 9/8
Coppersmith....."	12/-, 9/6, 10/-, 10/-, 9/-
Overhead Crane Attendant .."	7/6
Watchman....."	7/6, 9/-
Painters....."	11/-, 10/-, 9/-, 8/8, 8/6, 8/-
"    Assistants .."	7/6, 7/-
Plumber....."	12/-, 10/8

J. GARLICK,  
Secretary, Committee of Inquiry re Government Docks.

RAILWAY DEPARTMENT.

Leave.

Every servant, except salaried officers, will be entitled to a day's leave on full pay for each proclaimed public holiday. Those servants who cannot take such leave on the proclaimed holidays, in consequence of being required to work, will, on making application be allowed the same number of days at a future time, provided the Head of the Branch decides that they can be conveniently spared. Should, however, the exigencies of the Service not admit of the whole or any of the holidays being taken before the 31st July of the year following that for which they are due, an equivalent in money will be paid.

SHOP BOYS—RATES OF WAGES PAID IN RAILWAYS AND DOCKS COMPARED.

Government Docks, Cockatoo.

Revised Scale approved by Engineer-in-Chief on 23rd November, 1892.

See 92-12826, Harbours and Rivers.

14 to 15 years of age .....	1/8 per day.
15 " 16 " .....	2/0 "
16 " 17 " .....	2/3 "
17 " 18 " .....	2/6 "
18 " 19 " .....	3/- "
19 " 20 " .....	4/- "
20 " 21 " .....	5/- "

*Railway Workshops.*

Boys, other than apprentices, will be taken on to assist working in the running sheds and workshops at the following rates of pay :—

14 to 15 years of age .....	1'9 per day.
15 " 16 " .....	2/- "
16 " 17 " .....	2/3 "
17 " 18 " .....	2/6 "
18 " 19 " .....	3/- "
19 " 20 " .....	4/- "
20 " 21 " .....	5/- "

APPRENTICES.—RATES OF WAGES PAID IN RAILWAYS AND DOCKS COMPARED.  
*Government Docks.*

Rate fixed in 1887—see Public Works Department, 87-8703.

1st year .....	1/- per day.
2nd " .....	1/8 "
3rd " .....	2/6 "
4th " .....	3/4 "
5th " .....	4/2 "

*Railway Workshops.*

Lads will be taken into the shops as required, to learn the trades of fitter, turner, &c. They will not be taken in under the age of 15 years, and will not be out of their apprenticeship until the age of 21 years. They must be of good constitution, and able to read and write with facility; they will not be bound apprentice, but will be able to resign, and will be liable to dismissal in the same way as the men; they will also be subject to the same Rules and Regulations as the men. The remuneration for their services will be as follows :—

1st period—or up to 17 years of age .....	10d. per day.
2nd " of a year .....	1/3 "
3rd " " .....	2/ "
4th " " .....	3/ "
5th " " .....	5/ "

At the end of the term of apprenticeship they will be paid wages proportionate to the value of their services.

To the Chairman of Board inquiring into the working of the F.R.D. Establishment,—  
Sir,

Fitzroy Dock, 15 November, 98.

In compliance with your instructions, I hand you herewith a list of saw-mill plant which would be beneficial to the working of the establishment.

- 1st. One breaking down saw to admit a 48 in. log.
- 2nd. Robinson's self-acting circular saw and bench to take not less than a 36 in. saw.
- 3rd. Robinson's latest 4-headed planing machine to take not less than 24 in. in width and 6 in. in thickness.
- 4th. Emery saw sharpening machine.
- 5th. Band saw sharpening machine.
- 6th. Steam grinding stone sharpening machine knives.
- 7th. Overhead traveller for lifting logs into mill.
- 8th. Round hardwood logs, various sizes, to be kept in stock.
- 9th. A diver to be kept on the establishment.
- 10th. A patent slip capable of taking s.s., "Thetis"; then it will suit any of the dredge plant.
- 11th. Various sizes of deck planks to be kept in stock, and a proper shed to put it in.
- 12th. Sufficient material to be kept in general store here.
- 13th. Larger stock should be kept.

I am, &c.,  
J. PRATT.

SUTHERLAND DOCK.

*Particulars of Pumping Machinery.*  
Main Pumping Machinery.

Engines.—One connected pair of horizontal high-pressure surface condensing steam engines—diameter of each cylinder, 38 in.; stroke, 48 in.

Pumps.—Two vertical double-acting plunger pumps—diameter, 54 in.; stroke, 72 in.

Boilers.—Three horizontal multitubular steel boilers, 7-16 plate—diameter, 6 ft. 6 in.; length, 15 ft.; steam pressure, 80 lb. per square inch; boilers are set in brickwork and fired externally.

NOTE.—Two large Lancashire boilers from Glebe Island were erected in an extension to the boiler-house about eighteen months ago.

Drainage Engine.

One vertical non-condensing steam engine—cylinder, 14 in. diameter; stroke, 12 in. This engine is geared and operates three single acting vertical pumps, each 11 in. diameter and 30 in. stroke. It also supplies the power of hauling the caisson into and out of its inner berth.

18/11/98

J. E.

PARTICULARS OF TEST OF SUTHERLAND DOCK MACHINERY, OCTOBER 25TH, 1889.

Water pumped .....	41,200 tons
Time .....	3 hrs. 29 min.
Work done .....	425,186 foot tons
Mean indicated horse-power .....	317
" revolutions per minute .....	20,349
Total revolutions during trial .....	4,253
Pounds of best screened Wallsend coal used .....	4,255 lb. = 38 cwt.
" ashes produced .....	415
" actual combustible used .....	3,840
" green coal burned per square foot of grate .....	20.53
" used per I.H.P. per hour .....	3.853
" combustible .....	3.477
Tons of water raised per revolution .....	9.7
" displacement of pumps per revolution .....	10.9
Percentage of slip .....	11.0
Boiler pressure throughout trial .....	80 lb.
Steam supplied by two of the three boilers during trial.	

From high water level spring tides, the above dock (with the caisson stationed on the inner stop) contains 48,200 tons of water, and working at top speed of 20½ revolutions of the engines per minute, this can be discharged in four hours. This time can be reduced from fifteen to thirty minutes when a vessel is in dock. In practice it is found convenient to lay a ship dry in from 5½ to 6½ hours.

22/11/98.

WM. R.  
FRIDAY,



FRIDAY, 18 NOVEMBER, 1898.

The Committee met at 2 p.m. at Prince's Stairs, Circular Quay, and proceeded in the steam launch "Leila" to Cockatoo Island, where a meeting was held in the Board Room at 2:30 p.m.

PRESENT:

MR. R. POLLOCK, Chairman  
MR. W. D. CRUICKSHANK. | MR. A. B. PORTUS.

The minutes of the previous meeting were read and confirmed.

Mr. John George Buddle, Store Clerk, was called, and stated in reply to questions:—

*Personal*—*Mr. Buddle*.—I am Store Clerk, but was first appointed as Timber Inspector, etc.; I have been here seven years; before that I was employed at Mort's Dock as shipwright; I get any boats built that are required for the Public Works Department and supervise them while they are building if they are built away from Fitzroy Dock; I examine all chains that are required before they are cut off to see that they are numbered according to the certificate; I come here to the dock the first thing in the morning and see Mr. Lawes, and whatever is wanted on emergency in the store I get; the Storekeeper does not give me orders; I see the orders lying on the table, and if they are urgent he asks me can I get so and so up to-day; I take a copy of that and I see the contractor and try to get it up that day if possible; if I went to the Head Office I should not be able to get it up that day, as the requisition would have to undergo the official routine, which would be two or four days, but I have known it to take a week or ten days, but I would go and get any little thing that would not run into much money on my own responsibility; strictly speaking, I receive all my orders from Head Office; if anything important was required for Dredge Service I would go and ask Mr. Portus whether it would be safe for me to get it without waiting for the order, and if he thought the work was necessary he would say, "Get it by all means."

*Timber*.—The contractors very seldom have what we want in stock; I have to wait then until they have had sufficient time to get it from the bush, unless some other timber merchant has got it in stock, and I go round to see if they have; there have been very great delays in supplying timber, especially kauri decking, because no one in Sydney except Mort's keeps kauri decking cut; the Kauri Timber Company keep fitches, but the last ordered was 30 feet and upwards; if it had been 25 feet they might have done it; some time ago the Kauri Timber Company happened to get a deck, and the party failed, and they came to me and asked me if I could do anything; I saw Mr. Portus and he said it would be a good thing and I had better see Mr. Orr, but they were not our contractors, and it had to be ordered through our contractors; so that when it came to be ordered the timber was sold; that timber is what is wanted now for this little boat for the Marine Board; the contractor has bought the timber "to arrive"; the vessel was ready to leave New Zealand five weeks ago; yesterday I was asked to get some 2½ half-round iron and I got it yesterday; in that case the iron was here almost before the order left the office; I know it is against the rules, but the job must be done; the orders are taken to the Head Office by Peter in the launch; I am a shipwright by trade and I understand all about the work and that sort of thing.

*Stores, &c.*—I think the special orders from Cockatoo Island ought to be treated like those from the rivers; they get approval and get it away that day; if the orders could be issued from the works and signed by Mr. Broad we could get the goods much quicker, and I would not have to break any rules; sometimes the Engineer-in-Chief strikes things out of the requisition; suppose something was wanted in a hurry for one of the tugs for the Dredge Service, and I got it without seeing Mr. Portus, the Engineer-in-Chief might strike it out, and I would have to get the contractor to take it back; if the orders were carried out strictly the work would be stopped in many cases; we had the pilot boat, the "Captain Cook," here in dock; Mr. Pratt and the other officers wanted different things up here to get the job done; I got the things, but I have not got the orders for some of them yet. [Note: The "Captain Cook" left the dock on about the 12th of June, 1898.] It usually takes three or four days for the orders to go through the Head Office; it depends whether the Chief is away; I have the Roads and Bridges Department, the Railway Construction Branch, and the Sewerage Construction Branch to look after in the same way, and then there is the river work for Mr. Brooks and Mr. Keele and Mr. Houston at Trial Bay; I have to get vessels to take powder and get it away; it is only part of my work to call here in the morning; I have not the opportunity of knowing whether the same difficulty exists with other Departments in regard to stores; I see the requisitions from the dock before they go to the Head Office and get them after they have gone through, but requisitions from other Departments only reach me after they have gone through; the "Thetis" was here the other day; she was coming up the Harbour and a tube burst; they rang me up from the Island to get a tube for her; the tube was put in and the boat was at work the next morning; she would have been there for days if I had waited for the order; this practice on my part has never been questioned; they do not know anything; if there was any trouble I do not doubt that the contractors would take the articles back from me, but I would have to pay the expense of freight; I have to chance something; if I get an order for boiler plates and cannot get the proper size I have to report it to the Accountant,—"Mr. Steele, such and such plates cannot be got that size; might get them 6 in. wider or a foot longer," or something of that sort, and he forwards it on to Mr. Broad for approval, and then it comes back, and it is approved to get the larger size; I do not know who approved finally of getting the larger size, but I generally see Mr. Broad's name on it; there is a case now for Mr. Walsh at Newcastle; he asked for a plate 6 x 3 x ¼; I could not get that; I could get 8 x 3 x ¼, or I could get other thicknesses of the size asked for; I think it took three weeks before I could get the information, but that was a matter for Mr. Walsh himself; they sent the requisition to Mr. Walsh and stated that certain plates could be procured in Sydney—would any of them do? and he said "Yes, I will take 8 x 3 x ¼"; if Briscoe, Drysdale and Co. said they had not got 6 x 3 x ¼, and I knew Keep or any other firm had it I would make them buy it; they will give me an order to go and buy the plate; if it is procurable in Sydney I can guarantee to get it.

[Mr. Portus explained that the position taken up by the Accountant was that if a plate 6 x 3 x ¼ was ordered and one 8 x 3 x ¼ supplied, the Department should not be asked to pay for the extra 2 ft.]

Witness,

Witness, continuing, said :—If I cannot get anything down to the Accountant by 1 o'clock I cannot do anything that day ; Friday is the best day of the week, because the boat is half an hour later going out. The contractor has to find ways and means of getting the goods here, but there is a fruit-boat that leaves Sydney at 1 o'clock every day—the "Grower's Friend"; the contractor has to pay the freight; the launches will not bring anything up without instructions from Head Office.

(Witness then retired.)

Mr. Hugh Fulton, Inspector, was called, and stated in reply to questions :—I am an inspector, and have held my position for seventeen years ; I inspect all new constructions for the country towns water supplies, all the wharf ironwork, and the brass goods for the Harbours and Rivers Department, and all the machinery that is required—pumps and engines, and all that kind of thing ; I have nothing to do with anything that is being made here.

*Stores.*—I attend here every morning to get orders for goods that are required in town ; I order nearly all the brass goods for the docks ; if I came here and got the official orders for valves and cocks I would then go to the contractor and give him the official order which comes up here from the Head Office ; if the contractor has them in stock I examine them and see that they are what we want, according to the sample in Head Office ; sometimes the contractor has not got them, which causes a delay of several days ; I should hunt round and see if we cannot get it elsewhere, but I never got any orders to do that ; it should be cancelled after twenty-four hours, but that is not done ; if they were ready to use the cock here and the contractor had not got it I would then report that to Mr. Broad, and we have to wait for it ; he does not tell me to go elsewhere ; as a rule the work stands still until it is made ; I am under Mr. Broad, Mr. Portus, Mr. Grimshaw and Mr. Pridham ; Millen's people keep a very poor stock ; of course, if I had power to cancel the order I could go and get it elsewhere ; perhaps the contractor would lose 5s. or 10s. upon each article, and that is where the trouble comes in ; if the power of cancellation was used I could get the things much better and quicker ; I think Mr. Broad has sometimes written to the Head Office and recommended that orders should be cancelled, but I do not think any notice has been taken of it, so far as I know ; I do not think the power of cancellation has been used, except once or twice, for a number of years ; I have not known cases where the work has been kept back very much by reason of this power not being used ; the worst time is when making cast-iron valves ; Millen's have the contract along with the brass, and they keep no stock, and when you go there it is the same as with brass goods, they have not got them ; just now I have waited three or four days for one for the "Athena," a 3½ in. right-angle wheel valve ; I will not get it now before Monday ; Mr. Gibson, I suppose, ordered it a week before I got the official order ; it is six days now altogether since I gave Millen's the official order ; they have to cast them and machine them ; I might not have been able to get a 3½ right angle in town by buying elsewhere ; it is an outside size ; if we could get the order direct from Mr. Broad, then if they had not the thing it could be made before the official order was through ; there is a lot of time lost that way ; it would be better still if we could get the official order straight from Mr. Broad ; I have to take things on my own hands and take the risk ; I use my own common sense, but I am aware that I am breaking the Regulations ; the Department gave me a circular to that effect ; it said if anything was sent up here without an order I was liable to dismissal, and then it said I was not to speak to the contractor ; I showed it to Mr. Portus and he said, "You must speak to the contractor."

[Mr. Fulton was asked to let the Committee see the circular referred to at their next meeting.]

I said that they should keep a stock here of six of each different sizes, but orders have come to hand from the Head Office that they are to keep down the stock.

*Supervision.*—I am over at Mort's Dock nearly every day ; I have to go there to see all castings and explain personally ; I do not think the supervision here is so good as at Mort's Dock ; I think you want another foreman in the turning-shop ; you have no foreman there at all, and Mr. Gibson cannot be there and all round the different tugs and dredges as well ; at the old A. S. N. Co.'s, where I was, I was outside foreman for all work done on steamers, and there were foremen over all other departments, and each one was responsible for their own place ; I think you ought to have a man well up in the work over the machine-shop.

*Machines, &c.*—There are not sufficient lathes here ; I have seen work standing for days waiting to go into the turning-machines ; I should think the furnishing of these tools would have the effect of doing away with a large amount of overtime ; it would be an improvement in the place and a saving of money, unless you paid the fitters off, as they do elsewhere ; they pay them off and take them on when forgings and castings are machined, but it is still a loss of time, and that means money.

(Witness then retired.)

Mr. George Fletcher, Foreman Boilermaker, was called, and stated, in reply to questions :—I have been here twenty-two years ; I superintend the lengthening of ships and all general ironwork.

*Machines—Overtime.*—We are badly off for tools ; we have about the worst shop in the colonies, so far as tools are concerned, in proportion to the amount of work we turn out ; I need a plate-planer and a drilling-machine and other machinery which Mr. Broad has a list of ; of the two rollers in the shop, one is a very old pattern, and will only roll a plate 9 feet ; the other will roll a plate 14 feet, but nothing thicker than ¼-inch in thickness, unless plates are made hot in the furnace, which is very expensive ; when these rollers were tendered for I asked for rollers to roll a ¾-inch plate, but received these that would only roll a ¼-inch plate ; I have not sufficient boiler power to drive the new machines ; there is a separate plant for the boiler-shop—two little upright boilers, one to relieve the other ; I try to do away with overtime ; I make the men work meal hours, as I think two hours in daylight are worth four at night ; I put on spare men in meals hours if a job is urgent ; I am not fond of overtime myself ; I do not get paid for it ; my men get double time the first two hours overtime and time and a half afterwards right through the night, just the same as in outside firms ; we have a riveting-machine, but we have no gantling over it ; we have no rivet-making machine, we buy all rivets ; our riveting-machine takes two men to work it and four on the winch ; it is hydraulic ; I seldom work it, but do

do most of the work by hand; we made a tool to make the rivets for the "Sydney's" buckets—just a make-shift affair; we do all pipe work with boys; we can do 20-inch pipes for 1s. 6d. a foot for labour; I do not know the cost of the material; we could do them cheaper if we had the material landed here at our wharf alongside the shop instead of having to bring it up from that wharf to this weighbridge and then wheeling it back again; that makes the pipes cost very nearly half as much again; they land it where it suits them; sometimes our wharf is occupied.

*Apprentices.*—We have five apprentices at present; they serve five years; they have no written agreements; it is simply a verbal understanding; I think Mr. Darley appoints them; I have to speak to Mr. Broad; their wages are—6s. a week for the first year, 10s. a week for the second year, 15s. a week for the third year, 20s. a week for the fourth year, 25s. a week for the fifth year; if they want to join the society or to go to another shop they come to me for a testimonial; there is no grievance in connection with the system of apprenticeship; everybody is satisfied.

*Examination of Boilers.*—I examine the boilers of all ships that come here as far as Mr. Portus gives orders; I have got to see them under steam and examine them when blown off; I go through them myself; I determine the amount of work to be done; we get a list with a certain amount of work to be done, and sometimes I find about three times as much as is on the list; at other times I find that work specified is not needed; if I find there is more work to be done than is on the list then I report to Mr. Broad or Mr. Portus, and my report is always acted upon.

*Boilers—New Dock.*—I have not been in the boilers at the new dock for the last three years; when Mr. Hoey was here I happened to be in the room when they telephoned through to know who took charge of the dock boilers, and Mr. Hoey said Mr. Gibson would, so I had nothing more to do with them, but if anything goes wrong with them I generally go down and put it right; I cannot say whether anybody else has been in those boilers during the last three years, but I have not; the last time I put the stay tubes in I went in myself; that is about three years ago; when they came out first the stay tubes at the fire end of the boilers were not screwed into the back plate; they were just put in with a jamb-nut on each side; about three months after they were put in I found the nuts lying on the back end of the fire-pit, and sent men to cut end of tubes off; riveted and beaded them to act as stays; I did not examine the boilers when they came down in pocket; I saw the pocket; it was just something like my hat—about the same size; nothing was done to it excepting putting brickwork right round it to keep the heat away; it is there now; the cause of that was this: they used to have the zinc hanging on a hook; now zinc breaks in pieces, and I think a piece of zinc fell and landed on the bottom of the boiler on one spot; the man said he always washed and blew out the boiler when he had a chance, but of course he could not wash this zinc away; when I examined it I saw where the zinc was, and I came to the conclusion that that was the cause of the pocket; as far as I know there is no periodical inspection of boilers here; I have never been asked to do it.

*Stores.*—I have very often a difficulty in getting material; sometimes it is a month from the time when I order to the time when I get it; I have waited a week for a plate for a job that would only take two or three days to do; whenever I want any material I write out an order and give it to Mr. Lawes below; he forwards it to the store; then Mr. Buddle comes and gets a copy of it; then a requisition is sent to Head Office and it has to pass through the Accountant to come to Mr. Buddle again; very often Mr. Buddle goes and gets me a plate without the order, but that is against the rules; it is the same if I want a set of tubes, I have to wait; I take the men away from the job and put them to something else; I was at the A.S.N. Company's for twenty years; the boiler-shop there took charge of all the plates and tubes and angle iron; the ordinary store had the cocks and valves and fittings; I do not think half enough stock is kept here; I could not get any plate near the size we wanted for this boiler for the "Sol"; that should have been made with two plates, and we have had to make it with four; seven months ago Mr. Portus asked me for a list of plates for stock, and I gave him a list of £1,500 worth; we have had the plates here five months, and the frames and everything else for the steamer we are going to build now; there has been no delay over her; we will be able to go right ahead with her, but no boiler has been ordered for her.

[Mr. Portus explained that a boiler out of another steamer would be used for this boat.]

Witness, continuing, stated:—Mort's Dock can make boilers for half what they cost here, because I can only get small plates, while they have all sizes; I had to put two pieces in at the end of the "Galatea's" boiler, because I could not get a plate big enough; I can make a boiler here as cheaply as they can at Home if I get the proper size of plates; Mort's made two of those reclamation punts, Atlas Works two, and we had three; their tender was £895, and we finished ours for £750; the punts were started first by Mr. Grant, and he got £1,400 apiece for them; I only got one chance to compete against outside people with a good punt; that was a 330-ton punt, and was built for about £550 less than the lowest tender; I have built five steamers here and lengthened about a dozen.

[Mr. Portus remarked that the tenders for the 300-ton punt included winches, whereas Mr. Fletcher had not made winches for that constructed by him.]

Witness, continuing, said:—I went through Hoskins' shop, and when I saw the machinery they have got it made me ashamed of the place; they have put a shed up on the only bit of ground I had for building boats.

[The Committee then decided that the workmen in the different shops should be given an opportunity of bringing forward any matters they might wish, and that they be informed that they might select representatives from among themselves, two from each of the large staffs and one from each of the small staffs. Mr. Fletcher was asked to convey an intimation to this effect to the men under his charge.]

Mr. E. J. H. Broad was recalled, and stated in reply to questions:—I have not got my report ready yet; it will take some little time.

*Machines.*—The delay to the three lathes and the screwing machine is owing to the strikes in England, but they are on the road now.

[The Chairman said the strike should not affect these machines—they should be all ready made.]

Witness, continuing, said:—They should be all ready made—in fact all the machines we want ought to be here in three months by telegraphing for them; as a rule, when the Government orders machinery, we can scarcely ever get what we order; the machine was ordered correctly, the mistake has been made in England and a letter has been sent to the Agent-General drawing his attention to the fact, and also to the damaged state in which the machine has been delivered; take this machine down here now—Horsfall's Patent Nut-making machine; that is not what we ordered; we ordered it to make from  $\frac{5}{8}$  up to  $1\frac{1}{2}$  in., and we have only got from  $\frac{3}{8}$  to an inch, and only for making hexagonal, not square, nuts; all indents are checked and passed by the Engineer-in-Chief after being passed by Mr. Carleton; when Davis was here, he sent Home for a milling machine, and when it came it had not got a cutter; we have had to send an indent for cutters; fancy a milling machine without a cutter; my idea in ordering tools from England is to order them as complete as possible; when things are ordered I do not follow them up in Head Office and find out when they are coming; I think the lathes and screwing machines are on the sea; I was informed the other day that it will not be long before they are here; if we can get them in eighteen months we are satisfied; I think pounds, shillings and pence was the reason for the delay; the order was got out, and they suddenly discovered they wanted funds; the Engineer-in-Chief decided that the order for the tools required should not be sent on when the requisition was first received; we have the funds now, and they ordered them; in a case like that they never let me know because I never asked; in the Railway Department they have a man who does nothing else but write out indents, and they hold him responsible that everything that is required is mentioned; I asked the other day if they could show me the wording of this indent that was sent Home, and nobody could find it; I sent in asking for £14,500 to be placed on the Estimates for next year; I do not think I got a reply; that was about six months ago; this is the list:—

Estimate of Works required to be carried out during the year 1898-99.

	£	s.	d.
Boiler and engine for carpenter's shop ... ..	300	0	0
Electric light ... ..	600	0	0
Removal of rocks ... ..	2,000	0	0
Blacksmith's shop (new) ... ..	750	0	0
Slip for 500-ton slips ... ..	1,050	0	0
Pattern shop (new) ... ..	300	0	0
Tramway (shops and wharf) ... ..	500	0	0
Coal wharf ... ..	500	0	0
20-ton weigh-bridge ... ..	400	0	0
Moulding shop (new) ... ..	100	0	0
Erecting machine (new) ... ..	500	0	0
Removal of 10-ton crane from Garden Island and erecting at Fitzroy Dock ... ..	500	0	0
Dock Vote increased to ... ..	7,000	0	0
	14,500	0	0

The present amount of the Dock Vote is £5,600; I proposed to have that increased to £7,000, which is on the Estimates; the reason I did not ask for any small machinery there was because I thought that with all these small firms smashing up some suitable machining might be procured.

*Dock Vote.*—The docking of that German ship (Friederich der Grosse) goes into the Treasury; the wages of the men are paid out of the Dock Vote, which is reduced by that amount; the Head Office would be able to give a statement of the money earned by the docks; the system of book-keeping here is very different to that of a commercial house; one half is done here, and that half is done in a peculiar way.

[Mr. Broad then handed in copies of the accounts sent to Head Office in connection with the "Captain Cook" and the "Galatea." See pages 48 to 50.]

*Accounts.*—On the accounts we send to Head Office we do not show the material; we send the dockets down and they show what ship the material is for; they are compiled in Head Office, the information is sent to us, and we enter it in our cost book.

[Mr. Broad was then informed that the Committee intended conveying to the men an intimation that they might elect representatives to wait upon the Committee and bring forward any grievance they may have.]

Witness continued:—

*Pumping Engines.*—I am not apprehensive of the pumping engines breaking down because I keep a sharp look-out on them; I go down and look at them; but it is very evident that within a short time we shall have to write a report to the Engineer-in-Chief about the condition of the pumps, and suggest that means be taken at once to replace them with centrifugal pumps.

[The Committee then informed Mr. Broad that they had determined to go and see the pumps for themselves, as the evidence was that they were in such a bad state and so unreliable that they might break down at any moment.]

The Secretary was then directed to obtain from the Public Works Department the papers respecting the machinery ordered eighteen months ago by Mr. Broad, and, further, to obtain from Mr. Steel a statement of how the Dock Vote is operated on.

The Committee then inspected the boiler shop, and at 5 p.m. adjourned until 2 p.m. on Monday, 21st instant.

*Copy of Voucher.*

Claimant—Engineer-in-Chief. Place or district—Public Works.	Amount.
1898: June.—To stores issued from stock, Fitzroy Dock, on account pilot steamer "Captain Cook" .....	£ s. d. 31 0 2
Total.....	£31 0 2

June, 1898.—Department of Public Works.

*Stores issued on Account—Miscellaneous Works.*

Name and Description of Article.	Weight.	No.	Rate.	Amount.	Total.
Pilot steamer "Captain Cook."—Painting.					
Yellow ochre .....	7 lb.	.....	22/1	£ s. d. 0 1 5	£ s. d. 1 1 1
Raw oil .....	.....	4 gal.	2/1	0 8 4	
Copal varnish .....	.....	½ gal.	9/7	0 4 9	
Paint brush .....	.....	1	3/11	0 3 11	
Sash tool, No. 7 .....	.....	1	-/10	0 0 10	
Deck scrubber .....	.....	1	1/3½	0 1 3	
Chinese vermilion .....	¼ lb.	.....	2/2	0 0 7	

Pilot steamer "Captain Cook."—Hull Repairs.

Sand paper .....	.....	4 sheets	-/7½	0 0 1	4 14 7
Methylated spirits .....	.....	½ gal.	2/2½	0 0 3	
Shellac .....	1 lb.	.....	1/6	0 1 6	
Brass butt hinges .....	.....	1 pair	-/5½	0 0 6	
Copper rivets .....	½ lb.	.....	-/7½	0 0 4	
Wire nails .....	14 lb.	.....	10/0½	0 1 3	
Iron washers .....	½ lb.	.....	12/6	0 0 1	
Bolt ends .....	3½ lb.	.....	11/3½	0 0 4	
Cement .....	.....	¼ cask	10/-	0 2 6	
Tar brushes .....	.....	2	-/0	0 1 6	
Brown iron 1" .....	14 lb.	21 lb.	8/6	0 1 7	
" " ¾" .....	7 lb.				
Brass screws .....	.....	48	-/1¾	0 0 7	
" " .....	.....	36	-/8	0 2 0	
" " .....	.....	36	-/4½	0 1 1	
Soft soap .....	3 lb.	.....	12/2½	0 0 4	
Iron plates .....	1 c. 1 qr. 4 lb.	.....	8/9½	0 11 4	
Sheet brass .....	2½	.....	-/7½	0 1 9	
Stubbs H.S. file, 6" .....	.....	1	-/0½	0 0 6	
Galvanised steel wire rope .....	23	.....	-/6½	0 12 11	
Iron (brown) .....	2.11	.....	8/6	0 5 1	
Bolts and nuts .....	½	.....	19/1	0 0 1	
Col. sole leather .....	½	.....	1/3	0 0 4	
Iron hd. ....	12	.....	7/10½	0 0 10	
Bessr. steel .....	6	.....	16/5	0 0 11	
Brass screws .....	.....	8	-/10	0 0 7	
B.C. back nuts .....	.....	4	-/1	0 0 4	
Bends .....	.....	2	1/0½	0 3 7	
Stm. sockets .....	.....	3	-/1½	0 0 4	
" pipe .....	.....	14'	-/3	0 3 6	
Brass screws .....	.....	5	-/6	0 0 3	
" " .....	.....	6	-/1½	0 0 1	
Oregon .....	.....	80'	10/8½	0 8 7	
" .....	.....	28' 6"	9/11	0 2 10	
" .....	.....	53' 4"	11/8	0 6 2	
Hardwood .....	.....	94' 6"	8/4½	0 7 11	
Kauri .....	.....	34' 8"	18/10	0 6 6	
" .....	.....	22' 11"	19/9½	0 4 6	
" .....	.....	8' 66	20/6	0 1 9	

Pilot Steamer "Captain Cook."—Engine Casing.

Brass butt hinges .....	.....	2 prs.	-/5½	0 0 11	0 6 5
Sheet iron .....	2-5	.....	10/2	0 5 6	

Pilot Steamer "Captain Cook."—Ash Buckets Repairs.

Iron .....	5	.....	7/10½	.....	0 0 4
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Name and Description of Article.	Weight.	No.	Rate.	Amount.	Total.
Pilot Steamer "Captain Cook."—Machinery Repairs.					
Iron .....	5	.....	8/1½	£ s. d.	£ s. d.
Black lead .....	4	.....	-/2½	0 0 4	
Hex. bolts and nuts .....	4½	.....	16/4½	0 0 8	
Lead pipe .....	26	.....	16/2	0 3 9	
Block tin .....	5	.....	-/7½	0 3 1	
T. B. file .....	.....	1	1/7½	0 1 7	
F. S. file .....	.....	1	1/9½	0 1 10	
Tail oil .....	.....	7½ gals.	2/2	0 16 3	
Tallow .....	13	.....	-/2¾	0 2 9	
G. M. steam cock tlgd. ....	.....	1	29/7½	1 9 8	
" " SSS. valve .....	.....	1	21/3	1 1 3	
" " cylinder cocks .....	.....	1	17/4½	0 17 4	
Hex. bolts and nuts .....	3½	.....	3/7½	0 7 3	
Brass screws .....	.....	24	21/9½	0 0 8	
" " " " .....	.....	24	-/1½	0 0 3	
B. M. steam union .....	.....	1	-/6	0 1 0	
Copper tube .....	5½	.....	-/10½	0 0 11	
G. M. steam cock tlgd. ....	.....	2	1/0½	0 5 9	
Insertion .....	4½	.....	16/1½	1 12 3	
Rainbow sheet .....	4½	.....	-/10½	0 3 9	
H. B. file .....	4½	.....	3/-	0 13 6	
H. R. B. file .....	.....	1	2/6	0 2 6	
" " " " .....	.....	1	2/1¾	0 2 2	
Rd. B. file .....	.....	1	2/6½	0 2 6	
Sheet brass .....	6¾	.....	2/3½	0 2 4	
Rd. B. file .....	.....	2	-/6½	0 3 8	
Lead wire .....	1	.....	-/9	0 1 6	
H. R. B. file .....	.....	1	-/7½	0 0 7	
H. R. S. file .....	.....	1	1/7½	0 1 7	
Set pins .....	.....	6	1/4	0 1 4	
Iron washers .....	.....	6	1/11¼	0 1 0	
Hex. bolts and nuts .....	1½	.....	14/-	0 0 2	
Tuck's packing .....	1½	.....	18/6½	0 0 3	
G. M. steam sockets .....	8½	.....	1/5	0 11 8	
Red lead .....	.....	1	-/1½	0 0 1	
White lead .....	14	.....	21/7	0 2 8	
B. M. union .....	8	.....	32/4½	0 2 4	
" " " " .....	.....	1	-/7	0 0 7	
Lamp cotton .....	.....	1	1/5	0 1 5	
Copper wire .....	1	.....	-/10	0 0 10	
Cast steel .....	½	.....	-/7½	0 0 2	
Asbestos packing .....	13	.....	38/0½	0 4 6	
" " " " .....	4	.....	2/5½	0 1 10	
					10 9 8

Pilot Steamer "Captain Cook."					
Square B. file .....	.....	1	1/6	0 1 6	
H. R. file .....	.....	1	1/2½	0 1 2	
Split pins .....	.....	6	-/2½	0 0 1	
" " " " .....	.....	6	1/2½	0 0 1	
Sheet brass .....	12 lb.	.....	-/7½	0 7 6	
Hex. bolts and nuts .....	1½	.....	15/11	0 0 3	
Waste .....	6	.....	25/0½	0 1 4	
Bess. steel .....	2-10	.....	15/3	0 9 0	
Iron, brown .....	16	.....	8/6	0 1 3	
Ingot copper .....	25	.....	3/11½	0 9 10	
Soft soap .....	6	.....	12/2½	0 0 8	
Kerosene oil .....	.....	4 gals.	-/9	0 3 0	
Chisel steel .....	3½	.....	35/10	0 1 1	
					12 6 5

Pilot Steamer "Captain Cook."—Boiler Repairs.					
Cast steel .....	20	.....	41/9½	0 7 6	
Red lead .....	3	.....	19/2	0 14 5	
White lead .....	2	.....	24/8½	0 12 4	
Raw oil .....	.....	2 gals.	2/1	0 4 2	
Turps .....	.....	¼ gal.	2/1	0 0 6	
Terubine .....	.....	½ gal.	7/2½	0 3 7	
Hex. bolts and nuts ½", new ..	12¾	.....	16/4½	0 1 10	
" " " " ¾" 98 .....	12¾	.....	15/11	0 1 9	
Iron washers, new .....	3½	.....	12/6	0 0 4	
Boiled oil .....	.....	½ gal.	2/1½	0 1 1	
Paint brushes .....	.....	3	3/11	0 11 9	
Hex. bolts and nuts ½" .....	1	.....	16/4	0 0 2	
" " " " ¾" .....	½	.....	21/9½	0 0 1	
Firebricks .....	.....	40	7/15/2½	0 6 2	
English fire-clay .....	1-0-22	.....	9/1½	0 10 11	
Cement .....	.....	½	10/-	0 2 6	
					3 19 1

Pilot Steamer "Captain Cook."—Electric Light.					
B. G. pipe, 1", 98 .....	.....	7' 2"	-/2½	0 1 4	
Flanges, 1", new .....	.....	2	-/4½	0 0 9	
Brass screws, 1½ x 18 .....	.....	6	-/6¾	0 0 3	
Brass screws, W. T., 1½ x ¼, 98 ..	.....	12	-/9½	0 0 10	
Emery cloth .....	.....	2 sheets	-/11½	0 0 1	
Brass screws, ½ x 6 .....	.....	24	-/1¾	0 0 3	
Insertion .....	.....	½	-/10½	0 0 2	
					0 3 8

Name and Description of Article.	Weight.	No.	Rate.	Amount.	Total.	
Pilot Steamer "Captain Cook."—Winch.				£ s. d.	£ s. d.	
Split pins 3" x 5/16" .....	.....	10	3/8	0 0 3	0 0 6	
" " old .....	.....	16	-/2½	0 0 3		
Pilot Steamer "Captain Cook."—Boiler Funnel Alterations.						
Hex. bolts and nuts .....	1½	.....	21/9½	0 0 3	0 2 3	
Iron rivets, 5/8, 98 .....	14	.....	15/8½	0 2 0		
Pilot Steamer "Captain Cook."—Condenser.						
Clear pine.....	.....	9/0¾"	33/-	0 3 0	6 3 3	
Brass condenser tubes .....	2-24	.....	-/11	3 13 4		
Block tin .....	24½	.....	-/7½	0 15 6		
Engine packing .....	½	.....	-/9½	0 0 5		
Ingot copper .....	2-8½	.....	43/11½	1 5 4		
Bolts and nuts.....	2½	.....	19/1	0 0 6		
Black nuts .....	2½	.....	-/3	0 0 7		
Cast steel .....	4	.....	38/9½	0 1 5		
Brass bolts and nuts .....	1½	.....	1/6	0 2 8		
Hex. bolts and nuts .....	3½	.....	16/4	0 0 6		
Iron washers .....	½	.....	12/6	.....		
Pilot Steamer "Captain Cook."—Dynamo.						
Turps.....	.....	¾ gal.	2/1	0 0 6		0 0 6
Pilot Steamer "Captain Cook."—Cables.						
Stockholm tar, new .....	.....	6 gals.	1/4½	0 8 3	0 8 3	
Pilot Steamer "Captain Cook."						
Canvas No. 2, 98 .....	.....	4 yds.	-/11	0 3 8	0 9 8	
Marlenc, new .....	6	.....	52/0½	0 2 9		
Kip scather, new .....	3	.....	1/11	0 3 3		
Boat Repairs.						
H. R. copper, new .....	6½	.....	-/11½	0 6 3	1 4 2	
Kauri, 7 x 3, 8 x ½, 98 .....	.....	55'	18/8	0 10 3		
Kauri, 12 x 1½, 98 .....	.....	9'	18/8	0 1 8		
Hardwood, 6 x 2½, 23' .....	.....	25-10½	8/4½	0 2 2		
Copper nails, new .....	2	.....	-/9½	0 1 7		
Copper nails, 98 .....	2	.....	-/10	0 1 8		
Roves, 98 .....	2½	.....	1/0	0 0 6		
Iron screws, 1½ x 13, new.....	.....	12	-/¾	0 0 1		
Total .....						£31 0 2

MONDAY, 21 NOVEMBER, 1898.

The Committee met at 2 p.m. at Prince's Stairs, Circular Quay, and proceeded in the steam launch "Leila" to Cockatoo Island, where a meeting was held in the Board Room at 2-30 p.m.

PRESENT:—

MR. R. POLLOCK, CHAIRMAN.  
MR. A. B. PORTUS, | MR. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Secretary reported having informed Mr. Pratt and Mr. Gibson of the Committee's decision to see the men; and handed in the official papers regarding the lathes, &c., said to have been under order for eighteen months. A *procès* of these papers was also handed in (see pp. 52 to 55).

The Chairman reported the receipt from Mr. Fulton of the circular referred to in his evidence (copied at p. 54), and a statement from Mr. Pratt of the number of ships docked for the twelve months ended 30th June (copied at page 54).

Mr. George Frederick Lawes, storekeeper, was called and stated, in reply to questions:—My position is that of Storekeeper, but I do other work; I look after the books and accounts; I have been here six months.

*Stores.*—When stores are required the foremen have to send in dockets; the dockets are entered up against the stores received, and at the end of the month are sent down to Head Office, and the money values of the stores are put against the different jobs at Head Office; the dockets show whether the material is required for hull, boiler, or machinery—they would show whether it was for a steam-pump or a stop valve; we always have a poor stock; if there is a big job like the "Castor," that we know a lot of material will be wanted for, we order it for the "Castor," and it is charged up against the "Castor" direct, otherwise, if it is charged to stock, it has to be marked off by these dockets; bolts, and things like that, we prefer ordering direct for the job, because we want to keep our stock down low; we have a few in the store to draw on when the foreman underestimates his requirements; when stores are required

a requisition is made out and sent to Head Office direct to Engineer-in-Chief by post—then it goes to the Accountant, and so on, until the order is made out; it takes about a week to get a requisition through; I do not know how many hands it goes through; it goes to the Engineer-in-Chief, to the Accountant, and then, I think, to Mr. Conley, to know whether the Votes are there.

[Mr. Portus said he had made inquiries *re* this, and found that Mr. Wiley opened the requisition, which was then sent to be registered, then to Mr. Napier, and to Mr. Carleton; Mr. Carleton would sign it and send it to the Accountant; the Accountant then sent the order up, and Mr. Oatley would get it after, for correction.]

Witness, continuing, said:—When the order is sent to the contractor, the Head Office advises us to that effect, and we have had advices here before the contractor has received the orders; when the order is made out there are an original, a butt, and a duplicate; the duplicate is sent to the office that orders; it is about four or five days usually after we send the requisitions in that we receive the advices that the orders have been sent on; the contractor is allowed forty-eight hours to deliver after he receives the order; the people in Head Office must trust entirely to us, who send the order, as to whether the goods are required; they cannot tell without coming here; I think it would be as well if we could send the order to the contractor direct from here, and send a duplicate to Head Office, who could charge it to the different Votes just the same; the stuff would be here, and we could be using it while they were passing the requisition from one to the other; it would be much quicker; if we did everything here for the Head Office, and sent the accounts from here, it would need a larger clerical staff up here.

*Accounts.*—That item “salaries” against the “Karrakatta” is composed of the salaries of the officers, except the watchman, Macdonald; those are the salaries per day for the time the ship is in; if there are two boats in, one-half is charged to each; if there are three, one-third is charged; those are the whole of the staff on the docks whose time is not charged to any job; the others are all temporary men, paid per day, and their time is charged to the various jobs; the coal that is charged against the pumping out is the actual material used; so much coal, so much waste, and so on are issued for the pumping, and that is charged plus 10 per cent., and split up among the various vessels; coal and waste are issued out by docket; there is a weighing machine up at the pumping station to weigh the coal; the man knows pretty well what a barrowful weighs; that account is made out by Head Office; we send them the information; we do not send any accounts to the Naval Station, nor against merchant vessels; the Head Office collects all accounts; if it were decided to render accounts from here for docking, we could do it from the dockets for material and from the labour, but we should have another clerk; I have seen a commercial account—Mort’s account; we could do it in that way.

[At this stage Mr. Gibson entered, reported that the pumping engines were working, and asked the Committee to go and inspect them; this they did.]

On resuming, Mr. Lawes was recalled, and continued, in reply to questions:—

*Stores.*—It frequently happens that when we want a plate 6 x 3 we have to get one 8 x 3 or 9 x 3, the 6 x 3 is cut off and used, but the whole of the plate is charged to the job; when we want a 6 x 3 plate and cannot get it, but can get 8 x 3, we are supposed to send in to the Accountant and tell him so and suggest that an 8 x 3 plate would do, and he has to get the butt of the order altered and tell the contractor he can send; otherwise the contractor might have his account cut down to the weight of a 6 x 3 plate; they might say, “We have only ordered 6 x 3, and that is all we pay you”; that could be obviated if we ordered direct from this Establishment; we could alter the butt and tell him to alter his order; sometimes the account is sent up for a 6 x 3 plate and the weight of an 8 x 3 is shown; we have done that to get the thing through down below to save this trouble and annoyance, because we actually received that amount of plate; I think a lot of delay could be obviated if an indent were sent Home and a stock kept of sizes of plates that we cannot ordinarily obtain here; ordinary trade sizes we could order from the contractor, but there are a lot of sizes that it would never pay a contractor to keep; I do not think we need stock as much as 60 or 80 tons;  $\frac{3}{4}$  in. is the thickest I would recommend; the plates we always have a difficulty in obtaining are 5 ft. and 6 ft. wide; there are also a lot of angle-irons we cannot get; there is a trouble over the lengths; we want them for the frames of ships or for punts; I think Fletcher could give us a very good idea of what plates he would want; during the time I was at Keep’s it was the ordinary custom for orders to come, “Please supply plate such and such a size, official order to follow”; that worked all right; I used to see that I got the official order; it was done at our own risk, but I think most of the contractors would supply on a memo. from me or Mr. Broad, but we would have to see that they did get the official order; I think the right should be given to Mr. Broad or myself to write to the contractor and say, “We have sent in a requisition and the official order will follow,” and by that means get the goods up at once; I do not know what we should do if it were not for Buddle coming up here every day; when we want anything at once he gets it without the official order; of course, he is well known; the Regulations have to be a dead letter; they are unworkable; the work would be simply at a standstill if we had to wait always for an official order.

*Overtime.*—There is a good bit of overtime worked here, mostly in the machine shop; Gibson says that is owing to the lack of machinery; the Foreman is there, and he knows what time the men start; when they leave they give their numbers to the watchman, and he takes their time when they leave.

*Stores.*—It would be a great facility if we had racks in the stores to keep the boiler plates in and stand them up on their edges, and we should have an overhead traveller to get them out; now they are stowed right along the centre of the building, and they are awkward to get at; I think the weighing machines outside the stores should have the handles and the indicators inside; I believe that when the blacksmiths, say, are returning some iron from which they have used a piece, they might weigh the piece themselves and tell Parish inside, who should do it himself; if the weighing parts were inside they could not do this; I have two men at the store, and a timekeeper and a boy in office; when I get advice from the Accountant that goods have been ordered, if the goods are not to hand I send a note, “Not yet received,” back within two days sometimes, but in other cases, where I know there is a special delay—say information comes back, “None of this in town; we have got it landing in a week or two”—I keep it longer before sending it back; I do not know how many times I have written about that timber that was ordered



ordered four or five months ago; the papers are going backwards and forwards now; we did not order that; Mr. Orr ordered that; we cannot get any satisfaction now about the kauri; the last intimation I got was that it was in the harbour; now I find it is not in the harbour; I waited a week and sent it back saying, "I understood it was in the harbour, but now I understand it is not so"; I do not think there is any chance of these delays getting better under the present system; I think the requisition goes through more hands now than it used to; I do not know how many; I think it would save a good deal of trouble if I could send those advice notes about goods being ordered instead of Mr. Broad; it takes a lot of his time; the stores we get are generally of good quality; if they are not we simply tell the Contractors they are lying here at their risk and should be removed; there is some timber over there now which is condemned.

*Books.*—I have a cost book, store ledger, and a time book, and detail book; the dockets are entered up every day in a book kept in the store; every month they are sent to Mr. Delargie at Head Office who keeps a stock ledger from them, extending them into money, and sending back the value every month to us—"Captain Cook," hull so much, machinery so much, and boiler so much," and so with all the others; we then enter that in our cost book in which we keep wages, material, and what we call direct charges—that is, vouchers for stuff ordered direct; Mr. Delargie was here for years doing that work, but when I came here he was sent down to Head Office as they thought he could do the work there and perhaps do a little more; our cost book is really to keep more details than they have at the Head Office; I can show you a copy of how the dockets come back to us with the store issue every month; I have got it entered in a small book before it goes into the cost book; if this was a private firm it could be worked differently, but being a Government concern I do not see how it can be worked on a commercial basis; if we had authority we could use the telephone, order goods, and get them at once; I cannot see any advantage in having to send these requisitions through Head Office; it would save a lot of time if we did it here.

*Accounts.*—When my predecessor was here the accounts were made out at Head Office just the same as now, but Mr. Delargie used to keep the stock ledger here; if the accounts were made out here in a commercial way, and the orders given direct from here in harmony with the commercial practice, I would want two extra clerks here—Mr. Delargie back from the Head Office and another one; we could then make out the accounts exactly as Mort's accounts are made out.

*Delay to Instructions to do Work.*—Another thing that causes delay is that we get boats up here perhaps a week before we get the instructions to do the work; the orders ought to come here before the boat, just the same as if we were a private contractor; for instance the Spit punt was lying here for a week before we got the order; the man used to come and say he wanted this, that, and the other done, and we could not take his word for it; I think it a very undesirable thing for anybody to go to the Foreman and say, "We want this done and that done"; I think the orders should go through the office; then there is a punt in now, the one with a hole knocked through; we have not got any order for it; the little man from the "Octopus" came up and said somebody had knocked a hole in her—could we put her in dock? he said he would be here early in the morning, and we kept the dock open till one o'clock; according to the Regulations we could not put her in dock without an order, but we have; we had the "Mildura" in before we got the order; of course we had a telephone message, but the actual papers did not come here until the boat was in the dock; if we strictly carried out the instructions we could not do anything at all; if we stuck to the letter of the law and never did anything without an order I think we would get into worse trouble than what we do.

*Docking Men-of-War.*—At the time we charged £2 11s. a day against the "Royal Arthur" for salaries the "Mohawk" was in Fitzroy Dock, and we just halved the salaries between them; later there were the "Boomerang," "Karrakatta" and "Mohawk" in, and we divided the salaries among the three of them; the same with the electric light; Pratt has enough men to dock a ship without taking on any extra labourers, but he takes on men to scrub and paint; they are just casual men who work perhaps two or three days a week and are paid off; the men-of-war scrub themselves; I am referring to punts, &c.; Mort's do the merchantmen; we are not allowed to compete against them for a job like that.

*Stores.*—We charge for coal and oil and all other stores at contract prices, plus 10 per cent. for men-of-war.

*Coal.*—There is a pit certificate for the whole of a cargo of coal, giving the quantity and the colliery it comes out of; Godden generally tallies it out; the question of quantity has never been raised; we have never had a complaint; the quality of the coal is generally shown by the pit certificate.

[Mr. Portus said that the fireman at the pumping station had said he had great difficulty in keeping steam.]

Witness, continuing, said :—He has never complained before; I suppose it is the storekeeper's duty to see to the quality of the coal, but if there is anything wrong the foreman should complain; if he did complain, I am not a judge of coal, but I would have got on to Brown's about it; I will find out how that item of 14/2½ for wedges (on account "Royal Arthur," page 32) is made up. Later: This item is wedges at 12/11 per 100, plus 10 per cent.

The Committee then proceeded, in company with Mr. Lawes, to inspect the time book and cost book in the office, and the store dockets and books in the store.

At 5.15 the Committee adjourned until 2 p.m. on Wednesday, the 23rd instant.

#### ALLEGED DELAY TO MACHINES ORDERED FOR FITZROY DOCK.

##### *Précis of Correspondence.*

On March 11th, 1897, Mr. H. R. Carleton, Principal Assistant Engineer, Harbours and Rivers Branch, Public Works Department, asked Mr. Broad for his proposals as to what amount should be placed on the Estimates for 1897-1898.

Mr. Broad replied on 24th June, 1897, attaching a list of tools and machines he required (see page 53), and stating "he would like as many of these as the Engineer-in-Chief approved." He also said he would like to lay down a slip sufficiently large to take any of the tug boats, and suggested a sum of £2,000 be placed on the Estimates for both machines and slip.

Mr. Carleton immediately asked for the estimated value of the tools and machines mentioned in the list, and Mr. Broad replied on 28/6/97 stating he had put the approximate price against each item.

A recommendation was submitted to the Engineer-in-Chief for Public Works by Mr. Carleton asking that £1,300 be placed on the Estimates to provide the tools and machinery asked for by Mr. Broad.

This was concurred in by Mr. Darley on 2/7/97, approved by the Minister on 5/7/97, noted by the Accountant on 8/7/97, and by Mr. Broad on 19/7/97.

On the 8th July, Mr. Carleton verbally inquired at Messrs. A. McArthur & Co.'s for prices for these tools, and they gave approximate prices for some of them, but said it would be necessary to communicate with Messrs. J. Buckton & Co., of Leeds, before giving definite quotations.

Nothing further appears on the papers until October 5th, 1897, when McArthur and Co. forwarded a copy of Messrs. Buckton & Co.'s letter to them of 26/8/97, stating that they were not in a position to quote for a Copper's patent turret lathe, a Thorne's patent multiple drilling machine, nor a 6-spindle nut tapping machine, but furnishing prices for all the others.

On 5/10/97, the same day, Mr. Broad was asked by Mr. Carleton whether any of the machinery recently purchased at Messrs. Russell's at Newcastle could take the place of any of those offered by McArthur and Co., and on 12/10/97 Mr. Broad replied that the slotting, punching and shearing machines would do, and put a note on the list of machines asking that a 40-ton and a 10-ton spring balance weighing machine be ordered as well as the 20-ton previously asked for.

There is a break in the correspondence then until 18th January, 1898, when, in reply to further inquiries by Mr. Carleton, Messrs. McArthur & Co. write quoting prices for 5 and 10 ton Denison weighing machines.

On the 9th February, 1898, Messrs. McArthur & Co., replying to inquiries of same date, quote prices for Denison's machines to weigh up to 30 and 40 tons.

On 10th February, 1898, Mr. Darley asked what tools had been indented for on the following votes:—

Fitzroy Dock .....	£1,300
Newcastle.....	250

And further asked whether the cutters for the milling machine at Fitzroy Dock had been indented for.

Mr. Carleton replied next day that "full particulars of the tools and other articles required and the Votes which they should be charged are shown on the attached list, from which an indent can be prepared for forwarding to the Agent-General. The cutters for the milling machines are included in the indent. There is only about £60 of a balance on the Vote of £250 for tools for the Newcastle workshop."

The Engineer-in-Chief then recommended on 16/2/98 that an indent be forwarded to the Agent-General for (inter alia) "Tools, &c., for Fitzroy Dock, £1,250," with a request that the goods be purchased and sent out by steamer as soon as possible. The Minister approved on 17/2/98, and the indent was prepared and sent to the Treasury on 23/2/98 for transmission to the Agent-General (copy of indent herewith, pp. 53, 54). On the 1st March, 1898, the Under-Secretary of Finance and Trade reported that the indent had been forwarded as requested.

Messrs. McArthur & Co., wrote on 9/6/98 stating that they had just received advice from Buckton & Co., that they had received orders from the Agent-General for the machinery, and stating that they would no doubt be able to send the Denison weighing machines out in from two to three months, and they would not keep them back for the lathes.

On 19/7/98 the Under Secretary for Public Works forwarded an indent for a brass finishing lathe to the Under Secretary for Finance and Trade for transmission to the Agent-General. The Under Secretary for Finance and Trade replied on 26/7/98 that the indent had been forwarded.

J.G., 20/11/98.

LIST SUBMITTED BY MR. BROAD WITH MINUTE OF 24/6/97.

April 26th, 1897.

Necessary Tools required for Engineer and Blacksmith Shops.

- 1 Cooper patent turret lathe for brass finishing, double-gearred, 9 in. centres, length of bed 10 feet—about £130.
- 1 Thorne's patent portable drilling machine, to drill from  $\frac{1}{2}$  in. to  $1\frac{1}{2}$  in. holes—about £50.
- 1 of Smith and Coventry's self-acting sliding gap, surfacing, and screw cutting lathes, height of centres 18 in., to take a 6-foot chuck in gap with pillar to receive slide rest for large diameters, and one 4 jaw chuck 6 feet in diameter, length of bed of lathe 20 feet—about £300.
- 1 of Smith and Coventry's improved 10 in. screw cutting gap lathe with self-acting cross traversing gear, length of bed 15 feet—about £200.
- 1 of Smith and Coventry's improved slotting machines, stroke 9 in., to take in 3 feet diameter—about £180.
- 1 of Smith and Coventry's improved 6-spindle nut tapping machine, according to No. 3 in Catalogue—about £30.
- 1 of Smith and Coventry's shearing and punching machines for Blacksmith shop, to shear  $\frac{7}{8}$  plate and to punch up to  $\frac{7}{8}$  plate—about £220.
- 1 spring balance, to weigh up to 20 tons, for hanging on cranes to weigh material by the crane for shipping—about—£30.
- I have mentioned Smith and Coventry machines, but any recognised maker would be acceptable.

E.J.H.B., 24/6/97.

Copy of Indent.

Department of Public Works, Harbours and Rivers Branch, Sydney, 22nd February, 1898.

INDENT of Wire Ropes and Machinery to be ordered of T. and W. Smith, Smith and Coventry, &c., for the Harbours and Rivers Branch of this Department, and for which a letter of credit amounting to £1,633, the estimated cost, is recommended to be transmitted.

Particulars.—As per attached list.

Port of Delivery.—Sydney.

To be sent by Sailing or Steamship.—Steamship.

To be Obtained from T. and W. Smith, Newcastle-on-Tyne.

Best patent plough steel-wire rope, plain, extra special flexible—2,700 feet,  $2\frac{1}{2}$  inches; 1,400 feet,  $2\frac{3}{4}$  inches; 500 feet,  $2\frac{1}{2}$  inches; 370 feet, 3 inches; 200 feet, 4 inches; two 141-foot lengths, 4 inches; two 121-foot lengths, 4 inches.

To be Obtained from Smith and Coventry, Manchester.

- 1 Cooper's patent turret lathe for brass finishing, double-gearred, 9-inch centres, length of bed 10 feet.
- 1 Thorne's patent portable drilling-machine to drill  $\frac{1}{2}$ -inch to  $1\frac{1}{2}$ -inch holes.
- 1 improved 6-spindle nut-tapping machine, No. 3 in Catalogue.
- Cutters for universal milling-machine, 3 complete sets required,  $2\frac{1}{2}$ -inch, 3-inch, and 4-inch diameter.
- Width of face— $\frac{1}{2}$  inch,  $3\text{-}16\text{th}$  inch,  $\frac{1}{4}$  inch,  $5\text{-}16\text{th}$  inch,  $\frac{3}{8}$  inch,  $7\text{-}16\text{th}$  inch,  $\frac{1}{2}$  inch,  $9\text{-}16\text{th}$  inch,  $\frac{5}{8}$  inch,  $11\text{-}16\text{th}$  inch; diameter of cutter,  $2\frac{1}{2}$  inches, 3 inches, and 4 inches.
- Width of face— $13\text{-}16\text{th}$  inch,  $\frac{1}{2}$  inch,  $15\text{-}16\text{th}$  inch, 1 inch,  $1\frac{1}{8}$  inch,  $1\frac{1}{4}$  inch,  $1\frac{1}{2}$  inch,  $1\frac{3}{4}$  inch, 2 inches,  $2\frac{1}{4}$  inches,  $2\frac{1}{2}$  inches, 3 inches; diameter of cutter,  $2\frac{1}{2}$  inches, 3 inches, and 4 inches.
- Width of face,  $3\frac{1}{2}$  inches, 4 inches, 5 inches, 6 inches; diameter of cutter,  $2\frac{1}{2}$  inches, 3 inches, and 4 inches;  $\frac{1}{2}$  inch to 2 inches to have 1-inch holes for mandrills;  $2\frac{1}{4}$  inches to 6 inches to have  $1\frac{1}{4}$ -inch holes for mandrills.
- Twin or straddle mills for nut work, 1 set each right and left handed.
- Width of face— $\frac{3}{8}$  inch,  $\frac{1}{2}$  inch,  $\frac{3}{4}$  inch, 1 inch,  $1\frac{1}{8}$  inch,  $1\frac{1}{4}$  inch,  $1\frac{3}{8}$  inch,  $1\frac{1}{2}$  inch,  $1\frac{1}{2}$  inch, 9 right handed; diameter of cutter,  $2\frac{1}{2}$  inches,  $2\frac{3}{4}$  inches, 3 inches,  $3\frac{1}{4}$  inches, 4 inches,  $4\frac{1}{2}$  inches,  $4\frac{1}{2}$  inches, 5 inch, 9 left handed.
- Small cutters to have 1-inch holes, large ones  $1\frac{1}{4}$  inch.
- Cutters to have cutting edges on both sides and face to have  $1\frac{1}{4}$ -inch holes.
- Width of face— $1\frac{1}{4}$  inch,  $1\frac{1}{2}$  inch,  $1\frac{3}{4}$  inch, 2 inches; diameter of cutter,  $2\frac{1}{2}$  inches, 3 inches,  $3\frac{1}{2}$  inches,  $4\frac{1}{2}$  inches, four pairs.
- Two of each of these to work in pairs.
- Angular cutters:
  - Width of face—1 inch,  $1\frac{1}{4}$  inch,  $1\frac{1}{2}$  inch,  $1\frac{3}{4}$  inch, 2 inches, five required; diameter of cutters,  $1\frac{1}{2}$  inch, 2 inches,  $2\frac{1}{2}$  inches, 3 inches, 4 inches;  $\frac{1}{4}$ -inch holes in cutters up to  $2\frac{1}{2}$  inches; 1-inch holes in cutters up to 3 inches and 4 inches.

*To be obtained from Joshua Buckton and Co., Limited, Leeds.*

Prices f.o.b. London, as per quotation from Sydney agents.

- 1 sliding and surfacing brack lathe, 18-inch centres, 25-foot bed, to take 6-foot chuck, with pillar to receive slide rest for large diameter and 1-4 jaw chuck, 6 feet diameter, £506.  
 1 improved 10 in. screw cutting gap lathe with self-acting cross traversing gear, length of bed 15 ft., £140.  
 1 Denison suspended weigher, to weigh 10 tons, £44 5s.  
 1 Denison suspended weigher, to weigh 40 tons, £97.  
 1 Denison suspended weigher, to weigh 30 tons, £79 10s.

*To be obtained from W. T. Avery.*

1 7 ton cart platform weighbridge.

Department of Public Works, Sydney, 1st July, 1897.

*Supply of Inferior Goods by Annual Contractors.*

[Circular.]

Frequent complaints have been made by Local Officers of the quality of materials, tools, &c., supplied in response to their requisitions; and also that other brands are supplied than those named in the requisitions.

In future "orders" upon the Contractors will be made out strictly in accordance with the requisitions; and it will be the duty of all officers receiving the goods to see they are of the brands and kinds named, of satisfactory quality, and correct as to weight or quantities.

If it is found that requisitions have not been complied with, or that the goods supplied are of inferior quality, they are not to be made use of until report has been made to this office; and vouchers are on no account to be signed until instructions have been received.

Reports of this nature can be made on the Accountant's advice that order has been issued, or by wire in urgent cases.

ROBT. HICKSON,

Under-Secretary and Commissioner for Roads.

Department of Public Works, Sydney, 15th October, 1897.

*Goods Supplied under Annual Contract.*

[Circular.]

Referring to circular of 1st July, 1897, 97-1, 486-86,—In cases where goods upon delivery to the local officers are found by him not to be in accordance with his requisition, the course to follow will be: Report to the Accountant, stating in what respect the goods do not comply with requisition, and then await instructions.

Officers are not to return goods to the Annual Contractors until this has been done, nor are they to communicate with the Contractors, except through this office.

ROBT. HICKSON,

Under-Secretary and Commissioner for Roads.

DOCKING, YEAR ENDING JUNE, 1898.

*Sutherland Dock.*

	No.	Tonnage.
War-ships .....	13	31,205
Vessels.....	32	121,148
Dredge-plant .....	36	7,927
Total Number .....	86	

*Fitzroy Dock.*

War-ships .....	9	10,200
Dredge-plant .....	61	10,505
Total Number .....	70	

Sutherland Dock, total tonnage .....	160,325
Fitzroy Dock, total tonnage .....	20,705

The above includes 16 mail steamers—some of the largest this side of the line—also two Flagships.

Total tonnage for the two Docks .....	181,030
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J. PRATT.

WEDNESDAY, 23 NOVEMBER, 1898.

The Committee met at 2 p.m. at Prince's Stairs, Circular Quay, and proceeded in the steam launch "Swift" to Cockatoo Island, where a meeting was held in the Board-room at 2.30 p.m.

PRESENT:

MR. R. POLLOCK, Chairman.

MR. A. B. PORTUS | MR. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Secretary reported the receipt from Mr. Gibson of lists showing:—

1. Machines now in Shops.
2. „ under order.
3. „ required

The Lists are as follow:—

*List of machines at present in use in Shop.*

Lathes:—

1 large lathe, 2 ft. 6 in. centres.	1 lathe, 8½ in. centres.
1 „ lathe, 19 in. centres.	2 lathes, 8 in. centres.
3 lathes, 12 in. centres.	1 lathe, 7½ in. centres.
1 lathe, 10 in. centres.	1 lathe, 6 in. centres.

Slotting

1 slotting machine, 20 in. stroke.	Slotting Machines :—	1 slotting machine, 15in. stroke.
1 planing machine, 17 ft. travel.	Planing Machines :—	1 planing machine, 10 ft. travel.
1 planing machine, 10 ft. 6 in. travel.		1 planing machine, 4 ft. travel.
1 shaper machine, 16 in. stroke.	Shaping Machines :—	1 shaper machine, 9 in. stroke.
1 shaper machine, 12 in. stroke.		
8 drilling machines.	Drilling Machines :—	

## Machines at present in use in Shop.

- 1 nut-tapping machine.
- 1 bolt-screwing machine.
- 1 milling-machine and emery stone.
- 1 emery wheel.
- 1 8-ton traveller
- 1 pumping and shearing machine.
- 1 15-cwt. steam hammer.
- 1 10-cwt. steam hammer.
- 1 new nut and bolt making machine.

*List of Tools ordered to carry out work for Machine Shops.*

1. One self-acting sliding gap surfacing and screw-cutting lathe ; height of centres, 18 in. ; length of bed, 25 ft. between centres, with pillar and slide rest for large diameter work, with one jaw chuck 6 ft. in diameter.
  2. One improved screw-cutting gap lathe ; height of centres, 10 in. ; length of bed, 15 ft. Extra strong lathe.
  3. One patent turret lathe for brass-finishing : height of centres, 8 in.
  4. One improved (B) six-spindle nut tapping machine ; taps and master taps complete from  $\frac{1}{2}$  in. to 1 in.
  5. One improved Thorne's patent portable drilling-machine.
- I believe these machines have been ordered.

J. GIBSON.

*List of Tools required for Machine Shop.*

1. One sliding gap screw-cutting lathe, with shifting bed ; height of centres, 12 in. ; length of bed, 15 ft., with treble gearing and pillar rest ; one jaw chuck 4 ft. 5 in. in diameter.
  2. One improved screw cutting gap lathe ; height of centres, 12 in. ; length of bed, 20 ft. ; take 15 ft. between centres when gap is open.
  3. One improved screw-cutting lathe ; height of centres, 10 in. ; length of bed, 15 ft. ; self-acting cross-cutting gear.
  4. One improved bolt-screwing and nut-tapping machine, to screw from  $\frac{1}{2}$  in. to 2 in. ; to cut thread in one operation ; taps and master taps complete ; oil pumps for discharging oil on to bolts while working.
  5. One improved small slotting machine, 9 in. stroke.
  6. One screwing machine for screwing iron pipes ; to screw from 1 in. to  $1\frac{1}{4}$  in.,  $1\frac{1}{2}$  in., 2 in.,  $2\frac{1}{2}$  in.,  $2\frac{1}{2}$  in.,  $3\frac{1}{2}$  in.,  $3\frac{1}{2}$  in. and 4 in., with 10 pairs of extra wheels complete ; hand or steam power.
- Selig, Sonnenthal & Co., engineers.

*Blacksmith's Shop.*

1. One improved silent fan, Lloyd's system, suitable for thirty fires.
2. One steam hammer, Rigby's 10 cwt., without self-acting gear.
3. One steam hammer, without self-acting gear, 7 cwt.—Ragby's.
4. Coppersmith's shop : One burring-machine or jenny.
5. One turn-up wiring-machine.

*Tools required—Coppersmith's Shop.*

1. One beading or swageing-machine for tin, with one pair of steel rollers.
2. One grooving machine 38 in. long.
3. One planing machine.
4. One bottom closing machine.
5. One hydraulic bending-machine, for bending copper pipes up to 6 in., with return stroke.
6. One loom-mill for moulding-shop.
7. One new traveller for erecting shop, to lift 20 tons.
8. One new traveller for machines-shop, to lift 10 tons.
9. One crane and furnace for Blacksmith's shop. Crane to lift 5 tons.

These machines are needed to carry out the necessary work to do away with overtime as much as possible.

J. GIBSON.

Mr. Thomas Robert Steel, Accountant, Public Works Department, was called, and stated in reply to questions :—All documents relating to the finances of this Island go through my hands.

*Vote—Store Advance.*—There is a Vote of £7,000, called the Store Advance Account, for these Docks, for the purpose of buying stores to stock the store here ; whatever is purchased and placed in the store is charged temporarily against that Vote ; when the goods are used on the different works—say dredges or ships of any sort—the charge for what portion is used is transferred to the debit of the different works or services and credited to this Vote ; this £7,000 is continually being recouped ; the position is practically this : the amount the Vote is short of £7,000 is represented by stock in the store ; it is not annually voted, but was voted a good many years ago—in 1877—once for all time, and we continually pay into and draw out of it ; that £7,000 is practically the capital upon which the stores of the Island are worked.

*Vote—Dock Contingencies.*—Then there is another Vote for Dock Contingencies which increases or decreases according to Mr. Darley's estimate of what will be required ; he may, perhaps, one year think he ought to get a lot of tools, or that he is going in for more extensive work ; in such a case he would increase it ; there are sometimes special votes for tools, &c. ; it is also regulated according to the necessities of the Colonial Treasurer, who has the power of veto ; for 1898-99 we proposed £7,000 for this Vote, which is taken for the payment of all sorts of services connected with the Dock—thus, improvements to the Dock, such as clearing away some rocks or levelling any place, would properly be charged to it ; any expenditure incurred in connection with men-o'-war would not be recouped to the Vote—it would simply be paid to the Treasury ; the actual expense of docking a man-o'-war is charged against her ; that would first of all

all be charged to this Contingency Vote ; then when we obtain the money from the man-o'-war we pay it into a trust fund ; it practically goes to the credit of the Vote in that case ; the actual expenses are charged in the first instance to the Contingency Vote and then practically recouped ; docking the men-o'-war does not impoverish the Vote at all ; we do it simply at bare cost ; others would probably add to the bare cost a sum for depreciation of the capital value of the works and implements, but we do not ; the addition of 10 per cent. to the stores issued is an arrangement of Mr. Broad's, and is to cover cost of handling ; expenditure in connection with docking warships is not recouped to the Vote, because stores used for that purpose are already debited to the Dock as maintenance, and the amounts paid by the ships become Dock revenue pure and simple ; stores issued in repairing warships are paid in to the credit of the Vote, and are therefore available for the operations of the year ; this Vote may or may not be exhausted at the end of the year ; say we order a lot of machinery, and we calculate that the money for that will just use up the £7,000 at the end of the year ; if the person we order from does not furnish his account in time to be paid before the end of the financial year, there is a balance left to the credit of the Vote, and that lapses ; no balances are carried forward under the present system ; if there is £2,000 left in the Vote at the end of the year it is absolutely lost to the Dock ; if we order £5,000 worth of machinery to arrive on July 30, and at June 30 have £2,000 to the credit of the Vote, that £2,000 does not go towards paying the £5,000 ; even if we had sent the money Home, if the Agent-General had not got the account and had not paid the money it would lapse ; the amounts which have lapsed from this Vote at the end of the financial year for the past five years I can furnish ; this Vote pays for improvements to the works and for new machinery, unless the Engineer-in-Chief, seeing that there is a great demand for new machinery, were to take a special vote for it on the Estimates ; he might decide to build a new store or a new workshop ; it is quite possible that for such a purpose he would take a special vote on the Loan Estimates ; I find the present stores have been built from both Loan and Revenue Votes.

*Vote for the Services of other Departments.*—We have another Vote which we took on this year's Loan Estimates which we called "Vote for the Services of other Departments" ; up to the present, when work has been going on for other Departments (the Marine Board, the Fisheries, the Railway Construction Branch), it has been the practice to make out vouchers from the fortnightly wages sheets for each little bit of wages against each job and send them on to the Departments concerned ; then when we get our monthly statement of stock issued from the Dock we send out accounts for the stores issued during the month to each job ; that would go on from month to month until the job was finished ; that did not seem to me to be a satisfactory way of doing it ; I thought there ought to be one account for the one job, and for that purpose we got £5,000 voted, and we asked the Treasurer to transfer it to a trust fund so that we might operate upon it ; that was no sooner done than the Auditor-General objected and would not allow it, so we put the money back into the Treasury ; I intended that to be operated on in the same way as the Dock £7,000 for stores ; the Auditor-General had some technical legal objections to treating loan moneys as trust funds, so that we were forced back upon the old system of rendering accounts piecemeal against each Department just as the vouchers happen to come in ; I may state that the Railway Commissioners adopt just the same principal in rendering accounts to the Public Works Department ; they render the accounts to us just as the wages accounts come in and we pass them ; in rendering an account we give the wages for a fixed period ; we do not give the time that each particular class of men was on the job ; it is generally a lump sum ; for material there is generally more material given, for say John Keep and Sons supply material for a Marine Board launch, the voucher for that material would go to the Marine Board, and they would see the full particulars ; we give full detail for material taken out of the stores.

*Ordering Stores.*—The main difficulty lies with the timber and iron plates ; it does not seem to matter what annual contractor the Department has, we are always landed in difficulty with the timber, and there seems to be no merchant that can stock the sizes of iron plates that are demanded ; the Dock officers can always ring up the Contractor for plates, find out if he has the size required in stock, and if not what is the nearest size that can be obtained ; they can then make out their requisition accordingly ; when you ask, "Why should not the officers here order what they want direct?" you raise a very large question ; that would require a complete change in the policy of the Harbours and Rivers Department ; the Engineer-in-Chief would lose control of approval ; we have found from experience that if officers throughout the country order they usually break away from the contracts ; we trust entirely to the man here who sends the order as to whether it is really needed ; I order on his signature after the approval of the head of the Branch has been attached ; if the officers ordered independently, many difficulties in the matter of examining and passing accounts, which do not now exist, would be created ; I submit a lot of the Dock requisitions and also this statement showing all the requisitions we have received from the 1st July to date ; that has been extracted from the books ; now, here are a number of requisitions just picked out for me ; Mr. Broad originated requisition No. 3629 on the 11th October, but it did not reach me until the 13th October ; of course, it may not have been despatched until the 12th ; after it was received it would go to Mr. A. B. Portus, because in that there happens to be something for the Dredge Service, and he would have to approve of it ; well, that is pretty prompt ; here is a case : requisition No. 3723, originated in the Dock on the 8th, which reached me on the 14th ; you will notice your minute, Mr. Portus.

[Mr. Portus read : "The stock of  $\frac{3}{8}$  in. special plates for landing silt pipes should be well kept up, otherwise short and narrow plates have to be bought locally, causing much extra cost by extra riveting and punching."]

Witness, continuing : Now, in this there comes another element ; it was necessary to go even beyond Mr. Portus in that ; the Minister's approval had to be obtained on account of the very considerable amount involved and because it was not in contract ; there is a limitation to the amount which a chief of a Branch can expend on his own authority ; there is also a further point—it is not in contract ; in this case the Minister's approval was necessary ; here is another one from the 14th to the 18th, requisition No. 3761 ; "No record" means that we have no record of the quantity last supplied ; we now come to another element that causes delay ; you notice here an approval by Mr. Rossbach, acting for Mr. Carleton, Assistant Engineer for Harbours and Rivers ; this requisition goes first to Mr. Portus and then to Mr. Rossbach ; naturally, both of these officers have other duties, and many of these cannot be attended to at once, but having to pass through the two increases the delay ; here is one originated by Mr. Broad on 17th November, 1898 (No. 4849) ; a Dredge Service matter being involved in it, Mr. A. B. Portus dealt with it on 19th  
November,

November, 1898; it then went to Mr. Napier, one of the Engineers of the Harbours and Rivers Department, who revised it, then to Mr. Carleton to approve before coming to me to order; that did not go to Mr. Conley to see if there was money in the Vote; we risk the money for small amounts; the money is all right for that.

Chairman: Of course, the money is all right in all cases?

Witness: No, I have accounts for services for other Departments of which I cannot get payment from those Departments, simply because they have not money voted; for instance, the Dredge Service Vote ran out before the end of last year; if there had been a sudden breakdown of dredges there would have been no money on hand to pay for that; we would have had to try to get the money from the Treasurer's Advance Account; we would have had to repair the dredges right off and find the money afterwards; as a rule before work is done inquiry is made whether the money is available, but in cases of emergency we have to do the work and obtain funds afterwards; there was a case where another Department wanted a launch and the matter was referred to the Works Department; tenders were called, but as they were high it was decided to build it at the Dock; the papers came before me, and I made inquiries, with the result that I found they had not sufficient funds to pay for the boat, but wanted the Works Department to build it and wait for the money, settling up the account as best we could; I directed attention to that, and have heard no more about it; in that case the boat was not started on, but in the case of the pilot steamer "Ajax," for Newcastle, the work was started on, and it was found that the Vote taken was far short of what was required; the responsibility for these things does not lie with me, but the difficulty of straightening these things does; a special vote of £4,000 was got for that but we had to wait twelve months for it, and meantime our accounts were disorganised; Mr. Broad originates these orders, Mr. Portus approves, and Mr. Napier and Mr. Carleton, then it would come to me for order, the order clerk would prepare it, I would sign it, and then it would be issued; I do not think it is necessary for it to go through all these hands; I think Mr. A. B. Portus' approval would be quite sufficient; if the Engineer-in-charge of the Dock had power he might possibly order those things where no Ministerial approval is necessary; if he had full power to get anything that is required for the Establishment, subject to the approval of the Engineer-in-Chief, once a week or once a fortnight, then the Department would be committed before the Engineer-in-Chief had an opportunity to approve; if they do that now it is at their own risk; they have a store here, where they can store all requirements; it is their place to keep up a stock and draw on that stock; no provision has been made for increasing the amount in stock; there is no proposal to increase the Store Account; when I get a requisition my next step is to prepare the order, which is made out in triplicate, at one writing, with carbon sheets; the first copy is kept to check the account by, the second is sent direct to the Contractor, and the third is sent to the Dock advising them that we have ordered, and on this advice there is a footnote to say, "Should the above not be received promptly, please report, to enable me to take action in the matter; you will also inform me if the goods or articles are not of satisfactory quality, or of the brands requisitioned for, and you should also ascertain if the correct weights and quantities are delivered; if satisfactory, please return this advice, but if not, report on this form, or by wire in urgent cases"; there is the advice to the Dock that the goods have been ordered; I have to wait until they inform me that the goods have not been delivered; the Contractors are allowed forty-eight hours to deliver, and longer in case of coal; if the Dock officers report to me that the material is not delivered, I take this line of action—this is some timber for a wooden steam launch for the Marine Board: Mr. Orr writes, "The following pieces of timber were requisitioned for on the 25th June last, none of which has yet been delivered (order No. 23299), and as they include the keel, keelson, and shelves, the construction of the vessel cannot be proceeded with"; that is addressed to Mr. Carleton; I get a copy of the order, and I say, "Scott, Sibbald and Co. might be asked to state when delivery can be expected, and be asked to expedite"; they are written to, "I have the honor to inform you that it is reported that Mr. Davis' boat was at Cockatoo Island on the 24th ultimo, but no timber was delivered, as promised in your letter of the 19th ultimo, and must, therefore, request you to supply the material at once"; that material is not here yet; the Dock officers were asked to give a list of the material which had not been delivered; they did so, and I inquired, and then minuted as follows: "As some of this material is reported to have been delivered prior to Mr. Broad's report, will he please furnish an accurate list of all timber not yet to hand"; some of the timber was on the Island and Mr. Broad reported it was not received; well, we have got the list now, and here are the sizes, 4/60's, 6 x 1½ Oregon; that was ordered from Goodlet and Smith yesterday; I made inquiries, and they said they had not a stick of wood to cut to that length, and they seemed to have a difficulty in finding out where to get it; we could not get this timber from Goodlet and Smith, and Mr. Orr said he could get it if we gave him an order; we did so, and he placed it with Scott, Sibbald, and Co., and they have not supplied it yet; there were 1/57 6 x 5 ironbark; 1/57 5 x 5 ironbark; 2/60 9 x 1¾ spotted-gum; and 2/60 10 x 1¾ spotted-gum; in these cases that I have just spoken of the length seemed to be the difficulty; now, take the kauri that we placed with Goodlet and Smith according to their contract:—400 running ft. 6 x 1½ tongued and grooved kauri; 1,550 running ft. 4 x 2 kauri decking; 1,200 running ft. 6 x ¾ tongued and grooved kauri; 2/36 and 2/30 12 x 1½ dressed kauri; Goodlet and Smith have been daily expecting the vessel in with the kauri, and it has not arrived yet; it was ordered further back than October; they are waiting for the Kauri Timber Co. to bring it; they are buying from the Kauri Timber Co., but cannot get it; that 1/57 6 x 5 ironbark and the 2/60's 9 x 1¾ were placed with Scott, Sibbald, and Co. on the 7th June; they are not contractors; on the 20th October I said, "What action does the Engineer-in-Chief suggest?" when the timber could not be got, and Mr. Darley minuted, "Messrs. Scott, Sibbald and Co. should be again written to and urged to supply this timber at once"; it was perfectly within the province of the Engineer-in-Chief to suggest that another size should be got; here is another aspect of the matter: Atkins and Co. supply steel; that order was placed on the 24th October; on the 26th Mr. Broad reports that the material has not yet been received; my man found on inquiry that the contractors considered that they should not supply that quality of steel under the contract; they wrote "Re order 7751 for 1 bar each ¾, ¾, ¾, 1, 1½, 1¾, 1¾, and 2 in. round extra special," this we regret we are unable to supply at the price under item 8, as it is of the quality which is of an expensive kind, and which has only recently been stocked by us, after repeated and severe trials by the Railway Department; we shall be pleased to reduce our price to 60/- per cwt., which is a low price for the steel"; I could not attend to that, but had to refer it to the officer who deals with bonds and contracts as to whether it was in the terms of the contract or not; Mr. Broad

puts on "The Contract reads 'Best cast steel for tools, including silver steel, any maker as selected, *vide* page 84, item 8, also the footnote;' under this line the Contractor must supply steel suitable for various purposes, such as lathes, tools, snaps, hammers, etc.; I therefore think that the steel ordered should be supplied under this Contract"; Mr. Norrie follows on, "I think the view expressed by Mr. Broad in his minute of 2/11/98 is quite correct, and that the contractor should be informed that unless the order in question is complied with our powers under the contract will be exercised"; then it went to Mr. Broad to see what we had done, and he noted on it "Seen"; I do not know whether that steel has been supplied or not; I do not think there should be any difficulty in the way of money being voted to provide a sufficiency of stock here, both of plates and timber; it is simply a question of whether the Minister would approve of an increased Vote; I do not think he would object to it, but I do not know how far the institution of the Public Service Tender Board will affect the question of stores here now; it is quite possible that the ordering will leave me and be taken over by them; that will increase the number of hands the requisitions will have to go through—not so far as ordering stock is concerned, but special lines; I presume that after the requisitions are approved by Mr. Darley they will pass out of the Public Works Department and go to the Public Service Tender Board; it is anticipated that they will take over all the ordering for all the Departments; the annual Contractor does not know exactly what quantity he will have to supply; it would be hard to forecast.

*Accounts.*—If the Auditor-General had not prevented my using that Vote of £5,000 for Services for other Departments I would have been able to render the accounts very much like Mort's accounts are rendered; we would have been able to give full particulars; we cannot do it now because we have no capital to work on; if extra clerical assistance were provided here the accounts could be made out on a commercial basis, but it would not prevent our sending them on piecemeal in the first instance; I pay about £1,400 for Dock wages out of my Advance Account; I can clear the greater portion of that because it is for the Dredge Service and for our Department, and can be charged against the votes, but there are always little bits of the account which I cannot clear—£1 for this Department or £2 for that; the other Departments are so slow in paying that my accounts are crippled; I pay in hard cash, and must get cash back or else my Advance Account gets tied up; we pay on Fridays; we get the voucher in the evening; it is checked in the evening and in the morning a cheque is drawn and the money is made up down in the Pay Office. when we make the payment we do not know how it is to be divided any more than a mercantile firm; within a week Mr. Broad sends us in a charge sheet dividing it among the different Departments; I have an Advance Account from which I pay the wages right away; in those wages there are amounts for work done for other Departments, and I have to recover from them the amounts I pay for them so as to recoup my cash; I send the voucher on a week afterwards, but it may be months afterwards before I get it back; so far as I am concerned, I cannot alter the system; I have made an effort, but failed; I cannot break through the Government Regulations; I went over and interviewed the Auditor-General, and his objection is to placing this money to the credit of a Trust Fund at all; if the Attorney-General or the Law Authorities rule that he is wrong, the Auditor-General must give way, or if the Treasurer takes the matter in his own hands and takes the responsibility, the Auditor-General would then report the matter to Parliament and they would deal with it as they saw fit; I made this effort because of my experience of the imperfections of the system; I knew it was wrong and unsatisfactory.

*Stores.*—When the Harbours and Rivers Department existed separately, there used to be an arrangement by which stores wanted urgently were ordered direct with an intimation, "Official order will follow," but that would not do now; we had an instance of that lately; Grimshaw, of the Harbours and Rivers, and King, of the Architect's, had been doing that, and Keep was constantly sending me notes, "I have supplied so and so without order and no order has come to me"; I made inquiries and found that Grimshaw and King had forgotten to make out orders; in the matter of substituted plates, the Storekeeper could ring up Briscoe, Drysdale & Co., and find out what they have got, and then make out the order; Buddle is here in the morning, and if Briscoe, Drysdale & Co. have not got the size required, he should be asked to ascertain whether they can be got elsewhere, then he can telephone to the Dock, "I can get so and so," and the Dock can requisition accordingly; we must have some system; you cannot look at these things entirely from a commercial point of view; if Mr. Broad had that power, the Treasury or the Auditor-General would, possibly, later on, question it; of course, if that were the established method, I as Accountant, could provide means of dealing with it in regard to the accounts; I think very few of Mr. Broad's orders are altered in any way; one alteration, I remember, is that for those iron plates which Mr. Portus increased; I may point out that this is exactly the same method as the Railway Commissioners adopt; the Station-masters send in monthly requisitions to the Comptroller of Stores, who, when he has received them all, makes up his orders on the contractors, gets the stores, and sends them to the different stations; we adopt the same principle so far as the requisitions are concerned, but let the officers requisition whenever they may require the material; the complaints of delay at the Dock are not very great, take them all in all; the number of these advice notes that I get back is not very great; I introduced that advice note because, before I sent it, the Dock was never advised when material was ordered; there should be no difficulty in increasing the Stores Vote if Mr. Darley and the Minister approves; Mr. Broad could make a proposal and Mr. Darley could recommend it to the Minister through the Under Secretary, but if it is to be done, it ought to be done promptly, because the Loan Estimates are asked for; if you recommend £3,000 for tools it should be separate from that £7,000, because when spent, it would be gone, but that £7,000 Store Advance will be here always; the tools ordered from England will be paid for out of the Dock Contingencies Vote of £7,000; I do not think that is likely to be reduced; the money is not voted yet, but each month we use one-twelfth of last year's amount.

At 5 p.m., the Committee adjourned until 10.30 a.m. next day.

THURSDAY,

## THURSDAY, 24 NOVEMBER, 1898.

The Committee met at 10:30 at Prince's Stairs, Circular Quay, and proceeded in the steam launch "Europa" to Cockatoo Island.

PRESENT:—

Mr. R. POLLOCK, Chairman.  
Mr. A. B. PORTUS, | Mr. W. D. CRUICKSHANK.

The Committee spent from 11 a.m. to 2:30 p.m. in making a careful and complete examination of two of the old set of boilers, one of which is pocketed; and also in examining the pumping engines stated by the Foreman Engineer to be liable to give way at any moment.

In the course of this inspection Mr. Pollock and Mr. Cruickshank entered the boilers to make an internal examination and descended the pump-shaft, passing into the tunnel connecting with the Dock.

Mr. A. B. Portus was also present and assisted in the examination.

At 2:30 p.m. the Committee adjourned until 2 p.m. next day.

*A Statement showing the Overtime at Fitzroy Dock from 1st November, 1897, to 31st October, 1898.*

	Hours.		Hours.
Boilermakers .....	432	Pattern Makers .....	22½
"    Labourers .....	459	Boat Builder .....	16
Fitters .....	7,821	Machinists .....	256½
"    Labourers .....	2,999½	Driller .....	720
Shipwrights .....	712½	Labourers .....	1,317½
"    Labourers .....	2,729½	Firemen .....	1,122½
Blacksmiths .....	716½	Improver .....	39
"    Boys .....	137½	Moulders .....	64½
Strikers .....	1,303½	The driver of "Swift" .....	416
Fitters' Boys .....	224½	Electrician .....	31½
Boilermakers' Boys .....	160		
Plumbers .....	146½	Total .....	21,888½
Painters .....	41½		

25/11/98.

G.F.W.L.

*Annual Overhaul, Spit Ferry Punt, North Sydney District.*

Department of Public Works, Sydney, 23 November, 1898.

Memo.—Acting on instructions from Mr. W. A. Smith I give a statement of particulars in connection with above, for the information of Mr. A. B. Portus.

On September 1st, 1898, I wrote a minute to the Principal Assistant Engineer asking for arrangements to be made for the annual docking of the steam punt, stating that I understood (by telephone) that she could be taken in on Tuesday, the 6th inst. (App. 8283.)

I then instructed the Engineer at the Spit to have everything in readiness on the morning of the 6th, on which day she was taken in. On the 5th September I sent in a list of repairs which I had obtained from the Punt Engineer, and which he specially wanted effected; and stated that the punt was to go into dock on the following day.

On the 8th instant this paper came back for an estimated cost of repairs (papers 8414) on which I wrote the following minute:—"I have telephoned to the Fitzroy Dock for estimate, but they tell me they cannot give it till they know what is actually required; might not this attached list be sent to them. The punt is now in dock, but nothing can be done till they get particulars."

This is all the correspondence in the matter.

LINDON BROWN.

FRIDAY, 25 NOVEMBER, 1898.

The Committee met at 2 p.m. at Prince's Stairs, Circular Quay, and proceeded in the steam launch "Swift" to Cockatoo Island, where a meeting was held at 2:30 p.m.

PRESENT:—

Mr. R. POLLOCK, Chairman.  
Mr. A. B. PORTUS, | Mr. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

*Stores.*—The Secretary reported having ascertained from Mr. Steel, Accountant, Public Works Department, that during the year ended 30th June, 1898, stores were received at the Docking Establishment to the value of £14,166 4s. 1d., the issue from stock totalled £9,786 16s. 6d., leaving in hand at 30th June, 1898, material to the value of £4,379 7s. 7d.; at the 30th September last the value of the stock in the store was £5,286 0s. 9d., while at the present date the whole of the Store Advance Account of £7,000 is expended, but debits against other Departments for material actually used to the value of, say, £1,000 would reduce the value of goods now in the stores to £6,000.

A report by two officers of the Public Works Department on the last stocktaking at Cockatoo Island was handed in by the Secretary, and directed to be embodied in the Minutes of Evidence. It is as follows:—"23rd September, 1898. We beg to forward herewith a statement of the stock at Fitzroy Dock as taken by us in July last. On referring to the comparative statement attached it will be seen that the result is most satisfactory and reflects the greatest credit on all who have had to do with the management of the stock. The seeming large surplus of cement (80½ casks) is made up principally of 77 casks supplied by Messrs. Goodlet and Smith to make up the short weight on casks previously supplied. We would suggest that this surplus be taken into stock and the price per cask of stock cement reduced accordingly. The whole of the stores have been well cared for and are in good order. We examined the store books and found that they were carefully and neatly kept. (Signed) J. P. WYLIE; W. R. WYLIE."

"The result of the stocktaking is highly creditable to all concerned, and shows that the receiving and issuing of the stores has been carefully and correctly carried on throughout the year. I think the usual practice of writing off the deficiencies and taking the surplus into stock might now be adopted. (Signed) C.W.D., Engineer-in-Chief. Seen with pleasure, (Signed) J.H.Y."

A



A letter from the Secretary for Railways forwarding a printed list of employees for 1897 was received. The Secretary to the Committee reported that this return was identical with that from which he had obtained the information already furnished. (See p. 42.)

Mr. J. Gibson, Foreman Engineer, re-examined, stated in reply to questions :—

*Pumping Engines.*—If we wanted to disconnect one pump we could do so by taking the connecting rods off; we could not work at repairing one pump even though it was disconnected from the other, because we have no means of shutting off the water which fills up the well; the place is so constructed that it could not be made to shut off; although there are two pumps and two engines the only time available for repairing either of them is when the dock is empty; of course you can repair when the dock is full, but you have got to keep the sluice-valve down, and then you are working with the pressure against that big valve; but you cannot at any time work one pump and repair the other; if the pump is under repair the work must be stopped if either the Fitzroy or Sutherland Docks needs to be filled; the suction is common to both; of course we can repair anything on top by disconnecting the piston rod from the connecting rod; the crank shaft would still have to go round; even to do that you have to open up your circulating pump and block it up with blank flanges; practically, although we have two engines and two pumps, we have not got a duplicate plant; both docks are entirely dependent on the one plant; if any breakdown occurred there would be no means of pumping out either of the docks; some time ago we disconnected one pump when the cross-head pin gave way, and we had to pump the dock with one pump; it did it alright, but it took eight and a half hours; to pump out for laying the blocks when there is nothing in it takes about four and a half to four and three-quarters hours; sometimes we might do the pumping with the valves and all good, and the next time three or four of the valves might be gone; it all depends on that.

[Mr. Portus said that at the time of the test it was done in three and three-quarters hours.]

Witness: I think it took four and three-quarters hours; we always try to keep the engines up to the work as much as possible; we take as much as we possibly can out of them at the first part of the dock where it is lightest; we have put in four suction valve seats on the outside of the pump; we have never renewed any of the suction valve seats on the inside; there is one frame cracked on the inside now; to renew that we would have to take the frame and the cover off if it was at the top part, but if it was in the lower part we would have to take the plunger out, and there might be just room, and that is all, to get the plunger past the overhanging frame; they are all of cast iron; if we had a duplicate shaft it would take the best part of three weeks to get in; there would have to be some fitting on it even if you had eccentrics and everything fitted on it; we would have to lift out that fly-wheel, which weighs from 18 to 20 tons; the whole of the facilities for docking ships at Cockatoo depend on those engines, and there is nothing to fall back on; to put in one of those valve seats we have to strip the pump, and if you did the top box you would have to go through the same performance to do the bottom box, so that it would be better to renew them all together; I have about eight valve seatings by me now; we can put nothing in until we take the pump to pieces; if we could have got at the inside seatings we would have put some in, and we have not put them in simply because of the amount of work and time it would take; I think we could renew the whole of the valve seats on one pump in a month, but I would have to stand by it myself to take every bit out of the men.

[Mr. Portus said the pumping of the dock could be done by putting one of the sand pumps in and letting her pump it out, going down with the water. The dock is 620 ft. long; the "Groper" is 100 ft. long, and that would leave 500 ft. for shipping. The "Groper" indicates 300-h.p. and the dock engines also indicate 300-h.p., so that the "Groper" could pump out the dock as quickly as these engines, while the "Castor" could pump it out twice as fast.]

Witness: I think gun-metal would be too soft for these valve seats to be renewed with; there is a great hammering on them; some of them that are not eaten away are beaten right in; the metal in the framework below—the cast iron—is getting very soft; if Mr. Portus' suggestion to utilise one of the sand-pump dredges to do the pumping were carried out, we could renew the whole of the valves, and then it might be good for another eight years, having lasted for eight already.

(Witness then retired.)

Robert McCulloch, elected representative of the blacksmiths, stated :—I have been here about eleven years; we have twelve fires; there have been on an average about twelve blacksmiths here for the last three or four years; when I came here first there were four fires, and the old Maysmith hammer, and a little one that is in the boiler-shop at the present time; the Maysmith was of no use at all; it stood where the big hammer is now; I am the leading hand; there is no foreman in the shop; Mr. Gibson is our foreman; my pay is 12s. a day.

*Stores.*—If stores are wanted, anybody in the shop can go and get a docket from the man in the engineers' shop; then he has to get it signed by Mr. Gibson; nobody but Mr. Gibson has authority to sign the dockets for our shop; when he is not here we just have to wait, but when he goes away for a few hours he leaves a number of orders signed in charge of a clerk in his shop; when he is off sick there is someone in his place, and he signs; sometimes there is time lost waiting.

*Supervision.*—Each blacksmith has a striker, and some have two; there are about thirty-two men in our shop, blacksmiths and strikers; there is no supervision over them, except by Mr. Gibson; I came here when Mr. Williams left; one other smith gets the same as I do; I came from the A.S.N. Company's works; I think we made a shaft that was 18 inches finished; that was the biggest; we made another some time ago, 14 inches.

*Tools.*—There are not sufficient tools; we want another hammer; there is a back shop, and all the men have to come from that back shop to the hammer when they have a heat, and by the time they get there the best of the heat has gone; we want swedges and vice-blocks for stamping things out; our big hammer is quite big enough for any forging we can do in the fire; we have a 5-cwt. and a 15-cwt; we want one between the two; we are too far from the boilers, and by the time the steam gets to the hammers a great deal of it has been condensed to water; the boiler that drives the machinery in the engine-shop supplies our hammers, and the steam travels about 50 yards; the pipes are all covered.

*Supervision.*

*Supervision.*—I have no hesitation in saying that there should be a practical man in charge of that shop; I have worked in a few shops in this and the Old Country, and I never was in a shop where there was not a man of the trade in charge of it; I have no doubt it would be very much better for all concerned.

*Medical Certificates.—Sickness.*—The men had a meeting, and they asked me to mention two or three matters; one is the medical certificates; if a man is bad for a day, but not ill enough to go to a doctor, he has to produce a medical certificate to explain his absence; that certificate costs 5s. or more, according to what the doctor's fee is; that is considered rather a hardship; whether the men bring the certificates or not they do not get paid.

*Accident Pay.*—We do not consider it a hardship to have to get a certificate in the case of accidents when we get paid; since I have been in the shop there have been three, or, rather, more than three accidents; applications were put in for pay and some got full pay, others got half pay, and some got none at all; I do not know what was the reason for the difference; in the case of one man that did not get it it was said that it was through his own carelessness; I do not know who decides whether we are to be paid or not; at the A.S.N. Co's. it was not the custom to pay men when away sick, but they paid for accidents.

*Holidays.*—We get pay for holidays; only the Government give that; when we work on a holiday we get double pay, but, actually speaking, we only get single time; if I work on a holiday the other men are off; the others get a day's pay; I get paid for the holiday and for the day I work as one day, instead of double time.

*Overtime.*—Last year we worked a good deal of overtime, but have not done so much this year; last year we had four months out of twelve on overtime; if we had more fires there would be no need for overtime; there is plenty of room on the Island for fires; we have not room in our shop for more; when we work overtime we go home by the Ferry steamer, but we are allowed 1d. for that.

*Quality of Coal.*—Another grievance in connection with our shop is in the coal supplied to us; it is a great disadvantage not only to us, but to the Government; the stuff we get is not coal at all; you have no sooner put it on the fire than you have to throw it out again; dirty is not the name for it; we have complained to Mr. Gibson, and he says he has complained about it, too, but it comes here, and we have to make the best of it; it is all shell; it is terribly detrimental to the interests of the work; we are not allowed to touch the coal down there for the "Leila"; if you get good coal like that there is as much difference as between chalk and cheese; if you get a good coal it will cake all over the fire and make a sort of solid fire; but what we get will not run together at all; it is quite loose.

*Starting Time.—Late Arrivals.*—We come by the steamer in the morning, and she leaves certain wharfs at certain times; if a man loses that steamer and gets here perhaps half an hour after the bell he is not allowed to start until after breakfast, but has to wait about here for two hours doing nothing; some of the men living at a distance do their best to get here to time, but they may be a little late; the suggestion the men agreed on was that if a man did his best to get here and arrived before an hour had elapsed he should be allowed to start, but the time he was late should be deducted.

*Incidental Holidays.*—At one time we used to get all the holidays allowed to the clerks in the Head Office in between the ordinary holidays, such as a holiday on the landing of a new Governor, and so on; now we do not get these holidays, and the men think that whatever the Head Office get we ought to get; I do not know whether they would give up their pay for overtime to get these holidays.

*Eating Room, &c.*—The heat in our shop is terrible in summer time; the walls are thick and the shop is badly ventilated; there are louvres in the roof; we want some place where we can keep our food and have a decent meal in; we have to keep our food in a hot shop, and it is hardly fit for human consumption by dinner-time; we would like to have some sort of an eating-house on the Island; we cannot go off the Island, but have to bring all our meals with us.

[The Chairman said the Committee would inspect the shop.]

(Witness withdrew.)

James White, representing the strikers, stated:—I have been here twelve years.

*Accident Pay.*—Some men who have been hurt have received full pay for the time they have been off, others half-pay, and some have received none; if accident-pay is due to any workman who gets hurt through no fault of his own, we wish everybody to be treated alike; a big bar fell on my foot at one time; it was purely an accident; I had to get a declaration to that effect from two men who saw it, and a doctor's certificate; I sent them in with an application for pay, and they told me they would send it on, but they did not think they could recommend it; my toe is deformed now through the accident; it happened on a Thursday, and I started again on the following Monday; had I taken the doctor's advice I would not have been in for a fortnight, because I could not wear a proper boot for a fortnight afterwards; I never got paid for that time; a man named Stafford got half-pay; I do not know how long he was laid up; one man was laid up a long time and another a short time, and both got full pay; I do not know who decides whether we are entitled to accident-pay.

*Doctors' Certificates.*—If we are injured, or if we stop away from work through sickness, we have to produce a doctor's certificate to show why we were off; in some cases we have to pay 5s. or 2s. 6d. for this certificate; a man may have an illness for which it is not necessary to see a doctor, yet he has to get a medical certificate.

*Overtime.*—The men were unanimously of opinion that they should receive double time for the first two hours' overtime and time-and-a-half afterwards; they get it in the boiler-shop; the blacksmiths used to get it at one time.

(Bad quality of coal was also mentioned.)

(Witness retired.)

William Kidd, pattern-maker, who saw the Committee on his own behalf, stated :—

*Personal.*—I have been six and a half years in charge of the pattern-makers, coming here on the distinct understanding that I should take charge of the pattern-makers; of course, I did not know anything about how matters were carried on in the Government, and I simply took it for granted that it was the same as a private firm, and that "taking charge" implied that I would have the duties and status of a foreman; I receive 13s. 8d. a day; I have six journeymen and two apprentices under me; Mr. Gibson is supposed to be foreman, but he has never interfered.

*Stores.*—I sign all dockets for stores for my shop; I order and keep my own stock of timber, and issue the dockets to the store as we use it for each job.

*Tools.*—We have got only one turning lathe and a hand-saw; it is not sufficient to carry on the work of the shop rapidly and economically; a turning lathe and two small planing machines would be an acquisition to the shop—just a surfacing machine, about 20 inches surface, to take in timber about 20 inches wide; a band-saw setting machine and a ripping saw.

*Overtime.*—We work very little overtime in our shop; I try to avoid it.

*Personal.*—When I came here first I received 12s. a day; I started the shop; before I came Mort's Dock carried out all the work for the Department, and the rate charged was 1s. 10d. per hour for ordinary pattern-makers; I was asked to come over here to take charge at that rate, and a promise was given that I would be considered after the shop was started; about four months after I came I got the additional 1s. 8d. per day.

*Drawings.*—I have to do all the drawings in connection with the blacksmiths' work; Mr. Hoey gave me to understand that I would have to do this; when patterns go to the contractors, I have to put in an estimated weight for all castings; I make out the drawings for my own patterns; there is a compound condensing engine in the shop, and I made my own drawings for that; I get no assistance from the draftsman here; I have nothing at all to do with him; I practically do the work of the drawing office in connection with my own business; I have made models of the "Dictys," but I had no drawings for the amended design; I lay down working sketches on the boards, full size, for the blacksmiths; sometimes we get drawings  $\frac{1}{4}$ -scale or  $\frac{1}{2}$ -scale; I take that out all in detail, and make it all up for the blacksmiths.

*Supervision.*—Mr. Gibson has never exercised any supervision over me; I have entire charge and supervision of the pattern-making, the making of sketches for blacksmith's forgings and making up estimates of the weights of all castings that patterns are made for; they are all cast outside by the contractors; before the contractors receive the official order, the weight or estimated cost has to be given by the store, and sent to Head Office, who issue the order to the contractor; that entails a lot of extra work on me other than pattern-making.

*Mechanical Draftsman.*—I have been in Mort's, and from my experience of engineering work-shops I think it is very desirable to have an experienced mechanical draftsman here; he would help forward the work considerably; when a set of drawings came to the Island he could go through them carefully, examine them, see that the material was on the Island to carry out the work, and make any small sketches.

*Supervision.*—It would be to the benefit of the works if there were more supervision; I mean properly recognised supervision under the Superintendent; when a man is placed in charge of work it is an encouragement to him to do the best he can do for the Department, when he feels his work is recognised; I believe there is a great deal too much work put on Mr. Gibson's shoulders altogether; if he had recognised assistance it would be a great help to the place.

(Witness retired.)

[The Committee then proceeded to inspect the blacksmiths' shop with regard to the complaint made by Mr. McCulloch regarding the bad ventilation and the necessity for a place where the men could keep and eat their food.]

At 5 p.m. the Committee adjourned until 2 p.m. on Monday, the 28th instant.

#### MONDAY, 28 NOVEMBER, 1898.

The Committee met at 2 p.m. at Prince's Stairs, Circular Quay, and proceeded in the "Dayspring" to Cockatoo Island, where a meeting was held in the Board-room at 2.30 p.m.

PRESENT :—

Mr. R. POLLOCK, Chairman.  
Mr. A. B. PORTUS, | Mr. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Secretary reported having received from Mr. Gibson a list of the vessels which were in dock in March, 1896, as follows :—

"Castor."	"Omicron."
"Groper."	Trial Bay Winch.
"Neptune."	Camden Haven Winding Winch.
"Jupiter."	H.M.S. "Royalist."
"Golden Fleece."	H.M.S. "Boomerang."
"Rhea."	H.M.S. "Porpoise."

The Secretary was directed to write to Messrs. Goodlet and Smith (contractors for supply of timber), Briscoe, Drysdale, & Co. (contractors for supply of iron plates), and Milne Bros. (contractors for supply of iron plates, castings, &c.) and invite them to give evidence regarding the supply of stores, &c.

Two ex-employees of the Docks having intimated to the Committee, through Mr. Wilks, M.P., their desire to bring forward certain matters regarding their treatment, the Secretary was directed to inform them that the Committee would see on them on Wednesday next (White and Murphy).

C. Donnelly, elected representative of the fitters, stated:—I have been here about eight years; I am under Mr. Gibson.

*Steerage Fares.*—A thing that has troubled the shop for a long time is that when men are sent to jobs on the rivers, they are only allowed steerage fares on the boats; until the last couple of years it has been customary to allow saloon fares; it is not altogether a matter of pride, although that has a little to do with it, but the boats on the coast are not fit for pigs to travel in; that is the reason the men ask for saloon fares when travelling on the coast; on an average there is a man away every fortnight, sometimes more, sometimes less; the reason for asking for saloon fares is because the steerage accommodation is so bad; if we were travelling by the big boats we would not object to it; to an ordinary man, going outside the Heads is a big job; the last job I was on I travelled to the Tweed, and I never had a place to lay my head; I never had my boots off; it seems to be recognised by the Public Service Board that men receiving £144 or £147 should have a saloon passage; it seems a big distinction when men in the Dredge Service at £147 get saloon fares, and men here getting £156 only a steerage passage; ever since I have been in Sydney it has been a rule of the trade that an engineer should get first-class fares when travelling; when travelling for outside firms I never received anything but saloon fares.

*Board Money.*—If we go away working along the rivers they allow us board money, but it ceases at the end of three months; if we are up there three months we get the board money for the whole of the time, but if we are up for four months we only get board money for three; one man on Solitary Island got it, and another man sent to Solitary Island did not get it; that is one of the grievances on this Island, some men get things, and others do not; I have known men get saloon fares to go up the coast, but it is not by right, it is by some roundabout way; Charles Docksey (or Doxey) in the coppersmith's shop received a saloon fare; I do not know what job he was on; I think the board money is about 3s. 7d. a day, 25s. a week; about three years ago it was 30s. a week; it is an allowance to cover the cost of board in a boarding-house.

*Payment of Wages when sent away.*—If you are working on the Rivers at the present time you never know when you are going to get the money; there is no settled system of any kind; we might get it once a month or once a fortnight, or get it when you get back; at the present time there is a man up at Bourke; his wife is drawing his money; Archie Portus is away on another job and he has not got his money yet; that is the drawback; we do not know how we will be paid; I believe some have arranged it so that they can leave some with their wives; as a rule when a man is sent away he receives notice perhaps at 12 o'clock to-day and has to catch a boat to-night; they pay very regularly on the Island, but when we are away it is irregular; I would suggest that in the event of a man going away half his pay should be given to his wife and the other half forwarded to him on the Rivers; men have spoken to me about it at different times, but they will not complain.

*Advance of Wages when sent away.*—The men would like, in the event of being sent away to jobs like that, to be able to get a small advance to go on; the last time I went away I received notice at half-past 3; I happened to have a little money by me, and I had given notice at the Post Office to get it, but could not get it then; I had friends and was able to borrow; we have to make our own arrangements when we get there, and they pay us board money, but they do not advance it to us; a man sent away on a job will usually get an advance anywhere.

Mr. Cruickshank: You think Mr. Broad ought to be in a position to say, "Do you want a couple of pounds? Will a couple of pounds do you?" And if you say "Yes," he should be able to give you a couple of pounds whether it is due to you or not, so long as you are a reputable man whom he knows. If you have been working here for a considerable time you think he ought to do that?

Witness: Yes.

[Mr. Cruickshank promised to inquire into the stoppage of board money after three months.]

*Walking Time when on Outside Work.*—If a man is sent to work on a dredge down the harbour he is expected to be there at 6 in the morning and to leave at 4 in the afternoon, no matter where it is; the men would like some allowance for walking time; it would be a fair thing to give some walking time one way; I think that has been customary in the trade in Sydney.

[The Chairman explained that the general rule of the trade was that the men went to the job in their employer's time and returned in their own time.]

Witness: That would be a very fair thing; we always did that until about two or three months ago; the last time the "Groper" was overhauled Mr. Carruthers ruled that the men should not be allowed any time; we do not have to come to the Dock to put in our tickets; the Dredge Master takes the time; they usually carry a very fair supply of tools on the dredges; Mr. Carruthers wanted us to work the hours usual on the Island—6 to 4; we do not think that is right; when we are out we simply take the same meal time as we do when we are on the Island; we have never known it to be recognised that the cook on the dredge should cook meals for men from the Island; I have never asked him to do it; the "Groper" cannot come through the Glebe Island Bridge without being dismantled, and I think that is the reason they get the repairs done up there, rather than dismantle her; it is sometimes very awkward to get to the dredges when they are in out-of-the-way places.

*Meals.*—We are very badly off for meals on the Island; if you would go through the shop and look at the men's bread you would find it crisp and dry; all that is provided on the Island is hot water; we cannot get to a cookshop or any convenience, and it makes it rough all round; since we have had the new shop it is far more comfortable to get our meals in than the other shop, and I suppose we are better off in the fitters' shop than any others on the Island.

*Walking Time.*—If there was no difficulty in getting to a job we would not ask for walking time; I live handy to the "Groper," but I have never worked on her there yet; I worked on her once at the Island; if I lived in Sydney and had to go and get on board the "Groper" at Glebe Bridge I would not be handy to her; I have worked at North Shore and Middle Harbour on dredges, and I think a man placed like that ought to be allowed to catch ordinary workmen's ferrics to go; wherever convenient they send launches to these dredges down the harbour.

*Medical Certificates.*—If I meet with an accident on the Island, or if I go off sick, leaving word with my foreman that I have got a bilious attack, I have to produce a doctor's certificate to say I was sick; I was in a hospital five months, and I had to send a doctor's certificate every month; if a man has only a slight sickness he has to pay for a certificate.

*Accident Pay.*—Men have had accidents and some have received full pay, some half pay, and some none at all; that ought to be put on a satisfactory basis so that we shall know what we are to receive.

*Payment for Holidays.*—It is a customary thing to be told that men in the Government Service are paid for holidays; we work eight hours forty minutes per day, the extra forty minutes being to make up for Saturday afternoon; when we get a holiday we are only paid for eight hours when it is on a week day, and if on a Saturday we are only paid for half a day (five and a half hours); when the holiday comes on Saturday we ought to get a full day's pay, because we have made up for the Saturday afternoon during the week, or else when it is on a week day we should be paid for eight hours and forty minutes; if a holiday comes on a Monday, a Tuesday, a Wednesday, or a Friday we are paid for forty-seven and a quarter hours instead of forty-eight; we do not get our full pay; if they stick to that then when a holiday comes on Saturday we ought to be paid for the balance of four hours.

*Annual Holidays.*—There are some men in the shop who think that men who have been a long time in the Government Service might be given the privilege of a few days' holiday in the year; it is allowed in almost all the other branches of the Government Service; it is allowed in the Dredge Service.

[Mr. Portus pointed out that, although annual leave was allowed in the Dredge Service, the men in that service were only paid for overtime for the time actually worked, not time and a quarter like those at the Dock.]

*Dirt Money.*—Then it is pointed out that engineers do not get dirt money, but boilermakers do; I know it is not a rule of the engineers' trade to get dirt money, but still, at the same time, Government service is supposed to be fair, and if dirt money is given for one class of the trade it ought to be fair for the other; I think it is the engineer that gets the dirty part of the job; the boilermakers' job is only clean, black soot, but when it comes to getting in the bilges down below the engineers have the dirtiest work.

*Overtime.*—Then I have to ask that we should get paid double time for the first two hours' overtime; we used to receive it; our request might be met by saying that this is not given anywhere else; I am willing to admit it, except in the railway shops; it was taken off the outside shops by a conference between the men and the employers when times were bad, with a promise that it should be given back when the wages were restored to 10s. per day, but although this has been done the double time for overtime has not yet been conceded; the men ask for this in order to discourage overtime; it is a common practice in the trade, because they only pay time and a quarter, to run the shops almost every night; at the present time there is a movement in the trade to approach the employers to have double time reinstated; there has been a lot of overtime done here, due to the need of machinery.

*Stores.*—If I require a file I go to Mr. Gibson and tell him; if he is not there I wait till he is there; no one else can give it out; Mr. Gibson and Mr. Stewart look after the fitters; jobs are not placed in charge of leading hands; when Mr. Gibson was away Morrison assisted Mr. Stewart.

(Witness retired.)

William Stewart, interviewing the Committee on his own behalf, stated:—I am Assistant Engineer to Mr. Gibson; I have been here ten or eleven years.

*Machines.*—We have not sufficient machines in the shop; we are short of lathes; if we had more lathes it would do away with some of the overtime; we get a run of work in, but are not able to send it out in time; it is not very often that we have to work overtime on vessels in the dock to get them out for warships to come in.

[Mr. Portus read the list of vessels in during May:—"Castor," "Croper," "Neptune," "Jupiter," "Golden Fleece," "Rhea," "Omicron," Trial Bay Winch, Camden Haven Winding Winch, H.M.S. "Royalist," H.M.S. "Boomerang," H.M.S. "Porpoise."]

Witness said: There would be fitters at all these jobs.

*Supervision.*—I look after the men working on the different jobs outside; Mr. Gibson would be looking after those inside; he is not always inside, we are both backwards and forwards; it is not very often that the fitters and turners would be left without any person in the shop; I do not work myself; we have not got a leading hand on the place; I think we should have; none of the men are getting leading hands' pay.

*Personal.*—I get 11s. a day; that is 1s. extra; when Mr. Gibson was ill I had charge of the shop; I had an assistant; I did not receive any extra pay.

*Machines.*—I would suggest that a slotting machine be got; we have a big one and want a small one; we want a screwing machine and a nut-tapping machine; we have got a milling machine; it is working now; but we are short of cutters for it, and are making them.

*Supervision.*—Mr. Gibson has to look after everybody in the fitting, turning, moulding, and copper-smiths' shops, and the new dock engines; he has a leading hand in charge of the copper-smiths who receives the same wages as the rest; he is not recognised; Mr. Gibson is responsible.

*Personal.*—I came with regard to my wages; I reckon that I am not paid sufficient for the work that I do; I should be a little bit above the men that I have got to do with; none of the fitters get 11s; two turners get a little bit under 11s; I am practically the second foreman in the shop, but I am not recognised or paid as such.

(Witness retired.)

Harry

Harry Nell, elected representative of the moulders, stated :—I am an iron and brass founder and have been here four years ; there are four of us constantly in this shop—a moulder, a coremaker, a trimmer, and a fireman for melting iron ; we have an extra hand on when we cast iron to give us a hand in carrying the metal, and when we have to do any heavy lifting we have labourers.

*Lifting Gear.*—I may mention that we have no gear for lifting anything heavy, and it is quite dangerous.

*General.*—We have been working in brass and gun-metal for about four years, and now we have commenced on iron work ; the heaviest brass casting we did was, I think, a pipe of 8 cwt ; we have not been able to do any very heavy cast iron yet ; 8 cwt. is about the heaviest ; we have not got facilities for it ; we have two cupolas and a splendid blower ; we can get down about 7 tons ; we have only just commenced and are making our own gear and making our own boxes, and as soon as we get the pattern-makers out of the way we shall have a good shop ; we could do with a man and a boy now, and the work would be much cheaper through not having to wait for help ; the only things that are cast at Mort's are those for which we have not patterns here ; there are a few castings round the shop that were made there ; it would not pay to make patterns for the purpose ; otherwise nothing is done at Mort's ; being in an incipient state, I should like to mention that we have no particular classification here ; there seems to be a tendency to think that moulders are very much inferior to any other class of engineers ; that is not so in the Old Country—in fact they are generally paid more than fitters or turners ; I applied for an increase some time ago, and they said when the Public Service Board inquired into it I might expect an adjustment in my favour ; the other moulder commenced at 8s. 1d. a day ; he was amongst the labourers at first, and was brought in occasionally when I was busy, but now he is properly employed and has been promised an advance when we get the thing properly in swing ; last April I received 11s. ; before that it was 9s. 4d. ; I was in the Railway Service for nine and a-half years in charge of the tramway shops, and was paid 12s. 4d. a day for the same character of work ; there were three of us ; that was locomotive and tramway work—not equal to what we have here ; I left the Railways because I had a better position to go to, and the business failed, and I had to come back to the trade again ; the lowest they commence at in the Railways is 9s. 6d., which is increased to 10s. when they have been there twelve months ; I consider I am underpaid in comparison with others in private employ ; at Watson and Crane's they pay 12s., with a percentage on all work except what is used on the place ; the assistant-forman in the Railways gets 14s. a day, and has not to go to the ticket office ; they have not got many more moulders in the brass foundry than we have ; theirs is routine work, but here it is all jobbing—one thing one minute and another the next ; one man may be kept making one thing all the year in the Railways ; they have every facility—boxes made specially ; hitherto I have had to work with wooden boxes, but since we have been casting iron we have made iron boxes.

(Witness retired.)

James Russell, elected representative of the fitters, stated :—I have been here ten or eleven years ; I am under Mr. Gibson ; after mentioning the question of steerage and saloon passages he went on to speak of—

*Board Money.*—When a man is sent away he is only allowed board money for three months ; one of our fitters was sent to Solitary Island for fourteen weeks, but only received board money for thirteen ; that may be a solitary instance, but when he made his claim he was referred to the Rule ; I have never seen the Rule.

*Payment of Wages when away from Head-quarters.*—In a great many instances when men are sent away on jobs they have to wait a long time for their wages ; a man may be away three months, and it may be six weeks or two months after he gets back before he gets his money ; in my case I waited two months after coming back before getting my money ; that was when I went to the Richmond ; then when I went to Moss Vale I was six weeks waiting for my money after I came back ; I can mention other instances.

*Notice when Required to go away from Head-quarters—Advance of Cash.*—The men would like to get some notice when they are required to go away on a job ; we have had notice here between 2 and 3 to catch the train to go away at night-time, to be away from two or three weeks to perhaps two or two and a half months ; we think it is a grievance that an allowance is not made to us before we go as an advance, because when we go we may not have sufficient money to pay for board ; or it might be arranged for the man in charge of the dredge to advance the board money.

*Walking Time.*—A man living in Balmain, and sent to work on a dredge in the Harbour under the Dredge Master, should have some allowance made for the extra half or three-quarters of an hour it takes to get to the job ; the rule in outside jobs is that the men travel one way in the master's time ; Mort's Dock boat that comes here for their men always leaves here ten minutes or a quarter of an hour before our bell rings.

*Payment of Wages when away from Cockatoo, but still in or near Sydney.*—A man might be working on Thursday and Friday at Cockatoo and on Saturday be sent to a dredge in the Harbour ; when he comes back to Cockatoo he can only draw the two days' pay, whereas he may have been working a fortnight ; we have had to wait as long as three weeks for our money when working on dredges in the Harbour ; we have to wait until the Dredge-master sends advice here through the Head Office ; it is very seldom we get it inside a week ; we have never written in to Head Office complaining about it ; if a man happened to be sacked after his job on the dredge was finished he would still have to apply to the office for the money ; I have never known such a case ; the money is sent up here from Head Office and paid here ; we are then called into the office and sign the docket, and receive the pay ; it is a great hardship to a working man to be kept waiting for his money.

(Witness retired.)

James Johnstone (ex-M.P.), elected representative of the boiler-makers, stated :—I have been here two years and eight months.

*Place for Food—Eating Room.*—We would certainly like to have some place to get our food ; at low tide, and when the wind is blowing in, the excreta from the w.c. lies on the rocks below the wharf there.

*Steerage Passages.*—I have been to Mr. Broad and my foreman about the steerage passage allowed to men sent away; as a rule the steamers they send the men away in have not got a steerage, and they have to go as best they can; the boilermakers have been putting a few shillings out of their own pockets to it, to get themselves some comfort, with the hope of getting it back again; of course, there is some cleanliness and comfort in a second-class railway car, but I can assure you there is none in these steamers; I think the Public Service Board have laid down that anybody getting £144 and over is entitled to a saloon passage.

*Accident Pay.*—When men get hurt on the premises whilst at their work, some receive full pay, others half-pay, and some none at all; if it is a rule of the Establishment that men should get their pay, they should have no trouble.

*Medical Certificate.*—Witness also repeated the arguments of former delegates against having to furnish medical certificates when sick.

*Replies to Correspondence.*—Men working here making application for a rise have to go to the foreman; I suppose he worries Mr. Broad, and Mr. Broad worries Mr. Portus, and Mr. Portus worries somebody else, but we never hear anything more about it; we are never told whether they will allow it or not; we would like you to bring about some finality in this, so that we might get answers to our applications; in the Railway they get a rise for servitude, almost without asking.

[Mr. Portus explained that Mr. Broad never spoke to him about increasing the pay of any of the men, as he (Mr. Portus) had nothing to do with anything except the Dredge Service.]

*Dirt Money.*—The boilermakers have been getting dirt money on all work outside of the shop; there has never been any quibble about it in any of the shops in Sydney until the Government made a quibble about the "Ajax"; we were not paid for it on the "Ajax," although we were justly entitled to it; we would like this question settled finally; Mr. Broad told me that when the Committee sat I had better speak about it; we consider we are entitled to dirt money on old jobs; the "Ajax" was risen upon, and where the new work joined the old we claimed dirt money; we claimed it for the whole job; when I was in the chair at the dinner at the annual picnic I brought that under the notice of the Minister, and he said he would see it was rectified—"he did not want to quibble at pennies"; it is 1d. an hour extra; if it is old work there is never any trouble about it at Mort's; but when private firms find out that the Government is stinting in this matter they do the same.

*Apprentices—Improvers—Journeyman.*—The boys here do not seem to be able to get their rises; I might mention that a deputation waited on the Railway Commissioners about the same thing, and Mr. Oliver stated that he was very pleased to see them, and as a result some of the boys got their journeymen's money straight away; here, when the boys are out of their time, they do not get journeymen's wages; they keep them here for under-money.

*Ferry Boat.*—The men would like the boat to leave at half-past 5 every morning instead of twenty-five past; some of them come in by tram, and have to go to Darling Island to catch the boat, which comes round and calls at Colt-street; I pull to work; the boat gets here at ten to 6; they wait a good while at Colt-street to give the men a chance; if they left five minutes later at Darling Island and did not stop so long at Colt-street they would be here soon.

*Dirt Money.*—The boilermakers want a penny an hour for old work whether it is dirty or not; I get 1s. 2d. an hour, and if I am working at old work I get 1s. 3d.; in the Railway you get a rise for servitude, but here you write in, and that's the last you hear about it; the same thing about dirt money cropped up in the A.S.N. Co., and in the Railways when the Commissioners took office, and the Commissioners had the men up before them and said, "We will give you a penny an hour more all round and save trouble"; and Mr. Small did that; in the Railways some of them get 10s. 8d., 10s. 4d., 11s., 11s. 8d., and 12s. a day; after they are there for twelve or eighteen months they always get a rise; they get a rise to 10s.; a labourer would get a rise there, too.

(Witness retired.)

William Gray, elected representative of labourers in Boiler-shop, stated:—

*Cranes.*—We require a crane over the hydraulic machine, and another over the punching machine, and if we had a few blocks for flanging it would be better for the Department, and we should be able to turn out better work.

*Room for Meals.*—(Repetition of arguments of others.)

*Board Money.*—When labourers are sent away with mechanics there is always a difference of 3s. a week in the board money against the labourer; when a mechanic is allowed 24s. the labourer gets 21s., and when a mechanic is allowed 27s. the labourer gets 24s.; we cannot tell why it varies; the labourers have to pay as much for their board as the mechanics; I have not been away myself.

*Dirt Money.*—The labourers think if the mechanics get dirt money the labourers should get it also; we generally have the dirtiest part of the job; we have to go in and sweep it out; the boilermaker does not work by himself; he has always got a mate.

Richard Green and James O'Hehir, elected representatives of the shipwrights, were called:—

Green stated: I have been here about nineteen or twenty years.

O'Hehir stated: I have been here twenty-two years.

*Wages.*—O'Hehir stated: Our first grievance is in connection with the wages; we used to be paid 11s. on new work and 12s. on old until about four months ago, when it was reduced to 10s. on new and 12s. on old; we asked the reason and were told 10s. was the wages of the port; but we do not get the wages of the port; we only get time and a half for overtime, but at Mort's Dock, or any other private shop they get double time; we work a good deal of overtime.

*Medical Certificate.*—(Same arguments as used by others.)

Accident

*Accident Pay.*—One man got his thumb poisoned, and he was paid; another man got his finger crushed and got nothing; White was the one who had his finger crushed; Billy Miller, a joiner, had his finger cut with a chisel, and he was put off; we have never had any reason why some got paid and others did not.

*Steerage Passage.*—(Same arguments as used by others.)

*Workshop.*—Our principal grievance is what is termed our workshop; one end is turned into a joiners' shop, and boats are stored at the other end; when it comes on a shower of rain we have to knock off work as there is no room to work inside, and that is a hardship to men who are only paid 10s. for new work; we have to work in the open; there are many jobs that might be done inside if there were room; sometimes they paint men-of-war boats in there and you cannot walk through the shed—the gear, paint-pots, and boats are in the way; I do not think any complaint has been made to the Foreman about it.

Green said:—There is a boatbuilder who uses the end of the shed for his shop; at the present time there are thirteen or fourteen boats in there.

*Meals—Convenience for Getting.*—There is a complaint about the want of facilities for cooking; if you want to cook a bit of steak there are only a few sheets of iron; you can only boil an egg.

(Witnesses retired.)

George Taaf, joiner, waited on the Committee on his own behalf and stated:—I have been here twenty-three years; they cut my wages down from 12s. to 10s. about twelve months ago; I am not the leading hand; there is one above me; he gets 12s; his name is Joe Reed; Mr. Pratt is my foreman; he told me he would get me the sack altogether; he wanted to do away with the old hands; I consider he did not treat me fairly because he did not give me notice that my pay would be reduced; when he sacked me I saw Mr. Hickson and he put me back.

(Witness retired.)

Frederick Godden, foreman of labourers, waited on the Committee on his own behalf and stated:—I have been here five years; I came at 10s. per day, which rate I receive now; in January, 1896, I applied for an increase, and Mr. Broad recommended that I should get 12s. per day; that application was returned with the understanding that it was to be resubmitted when the Public Service Board took office; that was done, and when Mr. Wilson came here I brought the matter under his notice, and he, without committing himself in any way, expressed himself as favourably inclined towards it; I heard nothing further, and wrote to the Engineer-in-Chief in October, 1887, and he told me the papers had gone to the Public Service Board, and he could do nothing further until they dealt with it; I was engaged to be foreman here, but though my position is recognised here I am not on the permanent staff, and therefore have no official standing; Mr. Broad is my immediate superior.

*Steam Lighter.*—We need a small steam lighter to get things away from the Island on; if we had a punt and could be sure of getting a tug whenever wanted it would do, but very often we cannot get a steamer; if we had a lighter we could keep it constantly employed; we want better facilities to get things away; the wharves need repairing, and a tramline about the works is needed.

At 6 p.m. the Committee adjourned until 2 p.m. on Wednesday, the 30th instant.

### WEDNESDAY, 30 NOVEMBER, 1898.

The Committee met at 2 p.m. at Circular Quay and proceeded on the "Dayspring" to Cockatoo Island, where a meeting was held in the Board Room at 2-30 p.m.

PRESENT:

Mr. R. POLLOCK, Chairman.  
Mr. A. B. PORTUS. | Mr. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Secretary reported having written letters, inviting Messrs. Briscoe, Drysdale, and Company, Messrs. Goodlet and Smith, and Messrs. Milne Brothers to send representatives to give evidence, and also having written to Murphy and White, two ex-employees of the Docks, informing them that the Committee would hear them.

*Sick Pay—Accident Pay.*—The following letter was received from the Secretary for Railways:—

I have to acknowledge receipt of your letter of the 25th instant, asking what is the practice in this Department in regard to allowance of sick pay to mechanics in the Eveleigh Workshops.

In reply, I have to inform you that the standing Regulation as affecting these men is the same as that which applies generally to the Service, and is to the effect that when an employee is injured in the performance of his duties, without carelessness on his own part, he is allowed half pay during the pleasure of the Commissioners; if the injury is due to causes entirely beyond his control, he is allowed full pay during the pleasure of the Commissioners. The heads of Departments have power to grant the allowance for a period not exceeding one month, but for over that period the case is specially submitted for the approval of the Commissioners, and in every case the certificate of the Railway Medical Officer is necessary.

Special cases not coming strictly under the above conditions are dealt with on their merits, subject to the authority of the Commissioners.

The above relates to cases of accident only. Employees on the wages staff are not allowed sick pay, except under very special circumstances, which rarely occur, and which, of course, would be specially authorised by the Commissioners.

H. MCLACHLAN, Secretary.

Mr. J. GARLICK, Secretary Committee of Inquiry re Government Docks.

Copies of Dredge Service Regulations as under were handed in by the Secretary:—

Board Money (Regulation 159).

Officers receiving £168 per annum and over shall be allowed 25s. per week when not provided with accommodation, and 2s. 3d. per diem when accommodation is provided. Other employees shall receive relatively 20s. and 1s. 8d.

Steamer



## Steamer Passage.

Officers will be allowed second-class fares by rail and coach fares by road. Those in receipt of salaries of £144 per annum and over will be allowed saloon fare by steamer; those in receipt of a less salary than £144 will be allowed steerage fares by steamer.

## Holidays (Public).

156. The following days shall be observed as holidays, viz.:—New Year's Day, Anniversary Day, Good Friday, the day after Good Friday, Easter Monday, Queen's Birthday, Bank Holiday (1st August), Prince of Wales Birthday, Christmas Day, Boxing Day (26th December), and any other day proclaimed as a public holiday throughout New South Wales. No other holidays or partial holidays shall be observed without the special authority of the Minister for Public Works.

## Sick Pay.

157. In the event of an officer being incapacitated from work by reason of sickness, the permanent head may, with the approval of the Minister, if the officer has served continuously for more than three years, grant leave of absence on half pay for any period not exceeding one month in one year, provided always that such sickness has not been brought about by any misconduct or fault on the part of such officer, to determine which a certificate shall be required from a duly qualified medical practitioner stating the nature of the illness. Such certificate may, if deemed necessary, be referred to the Chief Medical Officer for report. Whenever an officer is prevented by sickness from attending duty, he shall immediately report the same to the Master of the Dredge to which he may be attached, and shall forward to the said master, within four days, a medical certificate showing the nature of his illness, which said certificate shall be transmitted to the Head of the Department, with a report of the circumstances of the case: Provided, however, that in cases of absence for a period of three days or less, the certificate of the Dredge-master, endorsed by the Superintending Engineer, may be taken as sufficient, but this shall not be held to prevent a certificate from a Medical Officer being demanded in respect of any period of absence if the Minister considers it desirable. All fees in respect of medical certificates shall be paid by the officers concerned, and, in cases of extended absence, the Minister may, if deemed desirable, require a fresh medical certificate to be furnished each week.

*Sick Pay—Stafford's Case.*—The Secretary handed in the official papers in the case of J. Stafford, blacksmith's striker, whose toe was injured on 30/12 97, through a bar of steel rolling off a weighbridge on which he had placed it; Mr. Broad reported, on 14/1/98, that the accident was due to Stafford's carelessness in turning round, after placing the iron on the machine, without seeing that it was properly secured; the Engineer-in-Chief concurred in this opinion; on the 20th March, Stafford wrote to Mr. Wilks, M.P., on the subject, and the latter interviewed the Minister, who eventually, in April, granted half-pay; two men, Parrish and Tennant, who witnessed the accident, certified that it was not caused through any fault on Stafford's part; the period he was absent was twelve days; no official papers can be traced regarding the accident alleged by White, in his evidence, to have caused his absence from duty from a Thursday to the following Monday, for which he received no pay.

*Stores, &c.*—Mr. A. B. Portus produced and read the following statement:—

During the time I occupied the position of Chief Clerk, Harbours and Rivers Branch, from 1st January, 1891, to 31st March, 1895, the method adopted for dealing with requisitions for supplies to the various works carried out at Fitzroy Dock was as follows:—

The requisition having been made out by the Storekeeper on one day, was signed by the Superintending Engineer of the Dock the following morning and sent to Head Office by the steam launch "Leila," addressed to the Engineer-in-Chief. The letters were opened by me, and the requisitions immediately taken to the Engineer-in-Chief, who approved of the supplies, and the Order Clerk (Mr. Oatley) was enabled to have the requisitions by 11 a.m.; he made out the orders in duplicate the same day, and next morning, by 9.30, they were signed by me, for the Engineer-in-Chief, and handed to Mr. Buddle, who placed them with the Contractors before 10 a.m., so that within twenty-four hours from the requisitions leaving the Dock the orders were placed with the Contractors.

The same arrangement existed with regard to requisitions for the Dredge Service.

In cases of great emergency, the Dock authorities would telephone direct to the Contractor for supplies and an order would be handed to them next day.

With reference to works which were frequently carried out for other Departments by the Docking Establishment, it often happened that the service so required had to be performed at the Dock, and the vessel or article, as the case might be, was sent to the Island before the authority to undertake the works thereon reached the Superintending Engineer. When this occurred, he would telephone to me and I would, in turn, telephone to the Department concerned, asking for what purpose the vessel or article had been sent to the Dock, and when the reply had been received, I would instruct the authorities to immediately put the work in hand, in anticipation of the approval of the Minister or the Engineer-in-Chief being obtained, as it was obvious that, through the unavoidable circumlocution, delay would be experienced before the paper asking for the works to be performed at the Dock reached its ultimate destination. As a consequence, works would occasionally be well in hand, if not completed, before formal approval had been obtained.

This practice had, to my knowledge, been observed in the Harbours and Rivers Branch for a considerable period prior to 1891.

JOHN PORTUS.

Mr. Corran Bridson, representing Messrs. Briscoe, Drysdale, and Co., stated:—

*Stores.*—I represent Messrs. Briscoe, Drysdale and Co., the present contractors for iron plates, gas pipes, angle-iron, bar-iron, engineers' stores, &c.; inquiries often come to us for plates of a size we have not in stock; we search the town and inquire of all the importers to see if they are procurable; if the particular size required is not obtainable we submit to the Department the nearest size procurable; Mr. Buddle is the man that makes the inquiries, and I always tell him the nearest size procurable, and he submits it to some official in the Head Office; we always deal with Mr. Oatley's Department in these matters; while I am inquiring Buddle has gone away, and when I know I ring up the office or write a note and tell them I am sorry that size is not procurable and give them the nearest to it; we have to wait some time before they inform us whether that size will be accepted, and sometimes in the interval we may have sold that size, and I have to give them particulars of another size; sometimes it is two or three days before I get a reply from the Department; in some instances it has been longer, but not generally speaking; we then get official instructions to alter the size that is ordered to the size that we can supply; I generally return the order to Mr. Buddle, and he takes it away and brings it back altered; I do not know who decides whether it will be accepted or not; I have an order now for 6 ft. 6 in. of angle iron  $1\frac{1}{2} \times \frac{3}{4}$ ; we do not cut angle iron; it is not trade usage; we have never been asked to do so.

[Mr. Portus said the order referred to must have come from someone in the country who did not know the trade sizes.]

Witness, continuing, said: We do not cut plates; I believe we have been asked to cut a plate, but have not done so; I might state, as one cause of delay in supplying goods, that we have had an order for plates of iron not of a manufactured size; I believe they were wanted for some reclamation works; they were 13 ft 10 in. x 5 ft. 6 in. x  $\frac{3}{8}$ ; this size of plate is not kept in stock by any maker in England; we had

had to cable to England for them, and could only find one maker that would roll them; they are under weigh now; our contract says "iron plates, any length and shape, all sizes," and we, as contractors, knowing the trade sizes that are kept, never considered or reckoned when we tendered that plates of such dimensions would be ordered from us; that clause is too open; if they ordered a plate a mile long under that clause we would have to supply it; 14 ft. is a size that is not manufactured unless under special circumstances; it is not usually kept in stock; I know some have been supplied to your Department; we had to send to England for them; it would be just as easy to send for 13 ft. 10 in. as for 14 ft.

[Mr. Portus explained that 13 ft. 10 in. was the size actually required, and as there was a difficulty in getting 14 ft. plates through the rolls to cut off the extra length, and as the plates had to be ordered specially, it was thought to be just as well to order the exact size required and so save any cutting when the plates were received.]

Witness, continuing, said: There is no proviso in the contract respecting outside sizes; the contract says: All sizes to 4 cwt., 9s. 8½d.; above 4 cwt. and up to 6 cwt., 10s. 2½d.; above 6 cwt. and up to 8 cwt., 11s. 2d.; above 8 cwt. and up to 10 cwt., 12s. 2d.; above 10 cwt. and up to 18 cwt., 13s. 1½d.; there is no provision for an outside size; that is only the weight of the plate; I consider the clause that we are to supply plates of any size very one-sided and unfair; there should be some provision for a special rate for outside sizes; 13 ft. 10 in. x 5 ft. 6 in. is an outside size; in this case the difficulty arises in the width; in a case like this, where we cannot supply and have to import, the Department are bound to give us the order; I am mentioning that as a case where delay was caused because it was an outside size; in ordering stock sizes if they will give us the order about 9 or 10 in the morning we always do our best to get the goods away that day; the boat leaves at 1, and if we do not get the order in time it must wait till next day; I have telephoned up here and told them the nearest size of plate when I have not had the exact size ordered in stock, but as a rule I do not do that, because then I do not get the official order altered; you rarely ask us for sizes that are not trade sizes, but in some cases sizes are sold out in the Sydney market; it would save a lot of time if I telephoned to the Superintendent of the Dock and told him I had not a 6 x 5, but could supply a plate 6 ft. square, and if he had the power to tell me to send it on; I do not think we have ever refused to buy plates in town of the size required by the Department, if they are procurable, to complete an order; we are the largest importers of plate and bar iron and ironmongery in all its branches in Australasia, and we can give despatch for nearly every size that is asked for; instances are very rare where we are compelled to buy plates and bars for the Department; in cases of urgency Mr. Buddle will come down and ask us to supply goods without an order; we know it is against the rule, but to oblige the Dock I send the goods up, knowing that I will get the order in due course; I cannot render an account until I get the official order; I have not had any trouble with the Department in that respect.

(Witness then retired.)

Mr. Charles William McFarlane, representing Messrs. Goodlet and Smith, stated:—

*Stores—Timber.*—Goodlet and Smith are the contractors for timber; there are three separate contracts, but we have the whole of them; no one can keep a stock of timber that will suit for supplying orders directly, unless they are small sizes; large sizes, such as are generally wanted at Cockatoo—long lengths—we have to send to the bush for; in the winter time, if it happens to be wet, when the logs are fallen, the teams cannot get them through the bush, and that sometimes causes a few weeks' delay; then the contract is only for six months, and in consequence of that you cannot make a proper arrangement, because you do not know whether you will get it for the next six months; sometimes we may get an order at the beginning of the contract and not get it filled by the end of the contract; that would be where it was a very large size; you might get a dozen logs, and when you cut them up you might find them no good; hardwood timber is faulty; it is not like pine; we have the kauri ordered from the Kauri Timber Company; they have a monopoly of all the mills in New Zealand, and their delay is the cause of our delay; we received that order at the end of June and ordered it on July 5, and it is not here yet; we stock kauri at our place, but the lengths required are over 30 ft.; we have up to 22 and 24 ft.; I never asked if 24 ft. would do, because I understood it was for deck-planking for a launch, and nobody ever will take less lengths than 25 ft.; those are the standard lengths for decking; we could not have bought it in Sydney; no such timber could be got in Sydney.

[Mr. Cruickshank said Beattie had a lot of it, and also Mort's.]

Witness: We were not aware that Beattie had any, and Mort's will not sell to us; if we had a contract for two or three years we could keep a much better stock; we cannot lay in a stock now, because by the time we got it in somebody else might have the contract; Mr. J. H. Goodlet is of opinion that the contract should not be less than twelve months; for years past the contracts were for twelve months; the price of timber has not varied very much for the past two years; variation in price would not be likely to influence us except a duty were put on; but if it were arranged that the duty would not be chargeable on Government contracts it would make no difference; keels are not ordered from us; they are not in our contracts; they are hewn—our contracts are for sawn timber; the delay, so far as we are concerned is due to the fact that we have ordered the timber but cannot get it; we have the whole stock of the Kauri Timber Company at our disposal by the terms of our agreement with them; we have had correspondence with them about this, and they have promised us time after time, and said they expected the next vessel loading would bring it; we got word on Monday this week that a vessel called the "Overland" is loading and she will bring it; we have tried the other timber merchants.

[Mr. Portus read "Timber for Marine Board Launch, ordered 25/6/98, not yet received":— 400 ft. 6 x 1½ t. and g. d.d. kauri, 30 ft. lengths; 1,560 ft. 4 x 2 kauri decking d.d., 30 ft. lengths; 1,200 ft. 6 x ¾ kauri, t. and g., 16 ft. lengths; 2 pieces 36 ft. and 2 pieces 30 ft. dressed kauri, 12 x 1½; 700 ft. 8 x 1½ d.d. kauri; 1,300 ft. 10 x 1½ d.d. kauri.]

Witness: That is all coming from New Zealand; we could not get those lengths, 36 ft., in Sydney.

[Mr. Portus continued reading:—"4 pieces 60 ft. long 6 x 1½ Oregon."]

Witness: We could not get the Oregon, but of course there was not much use in delivering that before we could get the other; they could not do anything with it. Mr.

[Mr. Portus continued reading:—"Ordered 19/7/98 for stock not yet received—1,000 ft. run 6 x 3 kauri; 5,000 ft. run 5 x 2½ kauri; 492 ft. super. 12 x 1½ kauri; 320 ft. super. 12 x 2 kauri; 482 ft. super. 6 x 2 kauri; 1,260 ft. super. 16 x 1½ kauri; 500 ft. super. 6 x 1 kauri t. and g.; 2/16 16 x 6 Oregon; also several sizes of hardwoods." Now here are the hardwoods, 4 pieces 14 ft. long, 18 x 3, and 8 pieces 26 ft. long, 12 x 3 spotted-gum.]

Witness: That could be got; that 1,460 lineal ft. 9 x 1½ spotted-gum, 26 ft. and up could be supplied; nearly all that 3,800 ft. 9 x 2½ spotted-gum, 26 ft. and up, has been supplied, and that 100 ft. of 9 x 3; I think you will find that they have not marked off the last lot they got; there is about 200 ft. of that 3,800 ft. yet to come; in this case there has been a lot of delay, but that is owing to the breakdown of our large steam punt; it broke down two or three times; but some of these lines have been supplied; in the hardwood the delay is due to the breakdown of our plant.

Mr. Portus: We saw some knees sent here twice; they were rejected and sent back again.

Witness: Oh no!

Mr. Cruickshank: There was Mr. Pratt's mark on them (condemnation mark).

Witness: I know nothing about that; I think it is better to have all the contracts in one, because then you have one delivery and can deliver two or three things at one time; the contracts were not blended this year; we got the three separate contracts.

(Witness retired.)

Mr. C. Bridson, representing Messrs. Briscoe, Drysdale and Co., was recalled, and stated:—Six plates 6 x 3 x ¾ were ordered on 14/9/98; at that time they could not be supplied; speaking from memory, I think we advised the Department that we had 7 x 3 x ¾; I have evidently overlooked the fact that the order for the 6 x 3 x ¾ was not cancelled, and that they are therefore still on order; I thought they had accepted the 7 x 3 in place of the 6 x 3; I can supply the latter now; on 1/10/98 half a ton of 1½ x ¼ angle iron was ordered; this is being rolled by a Sydney firm, and will be sent on as soon as possible; the delay has arisen through their being so busy.

Mr. G. W. F. Lawes, Storekeeper, was sent for at this stage, and on entering the room said:—When we ordered six plates 6 x 3 x ¾, and Briscoe, Drysdale, and Co. told us that they had not that size, but had 7 x 3 x ¾, we ordered the latter on a separate order, and the order for the 6 x 3 x ¾ is still outstanding; we still want them.

Mr. Bridson: We have supplied the 5 cwt. of 2½ x ½ half round iron for stock; there are only two lots of 200 ft. each of that size that we have to supply.

[Chairman read: "A quantity of Cleveland drills were ordered to be imported on 1/4/98. On making inquiries last month we were informed that Briscoe, Drysdale, and Co. had never ordered the drills. A new order has now been made on H. P. Gregory.]

Mr. Bridson: My predecessor had that order in hand, and on looking into the matter I found he had neglected to indent for them; the order has since been cancelled.

(Witness and Mr. Lawes then retired.)

James Murphy and Henry White, shipwrights, waited on the Committee on their own behalf:—

Mr. White stated: I have been employed at the Docks at different times during the past eighteen months; the last time I was employed was six or seven weeks since; after I had been working about a fortnight the last time a number of men were taken on, and after they had been at work two or three days I was knocked off and they were kept on; I went and asked Mr. Pratt why he put me off and kept on other men who came after me, and he made a direct charge against me; he said I was always talking and neglecting my work; now, Mr. Castle is the leading shipwright under Mr. Pratt, and gives us our work; I went and asked him if he ever knew me to be guilty of that sort of thing, and he said, "If I was asked the question I could not say a thing like that"; with Mr. Murphy I went and saw Mr. Darley, the Engineer-in-Chief; we stated our case, and he said he would make a further investigation; I waited a little while but received no communication from him, and then I saw Mr. Wilks, the Member, and asked him if he had seen Mr. Darley; he did so, and sent me a note to say that Mr. Darley had made an investigation, and could not recommend either Murphy or myself for further employment here; now, there must have been something very serious said when Mr. Darley would say a thing like that; if I was such a bad character the shipwrights of Sydney would not have elected me secretary of their society for the past seven years; hundreds of pounds of their money pass through my hands every year; it is all over the place now that I have been dismissed from Cockatoo for talking; there is one thing that Mr. Pratt might have said to Mr. Darley. (Witness then mentioned the details of a quarrel between himself and Lawrence, master of the "Dayspring," which occurred eight years ago, for which he was dismissed from the Atlas Works, but was afterwards reinstated. He said he thought this should not be brought up against him.) The other morning we came up here and applied for work, and Mr. Pratt said he did not want men then, and when he did he would employ the best procurable; we are as capable of doing our work as anybody else; there is one thing I want to disabuse your minds of, and that is we want no privileges; there has been a very serious imputation on my character and I want to clear myself; Mr. Pratt has made some statement to Mr. Darley to make him say he cannot recommend me for employment; the men who are employed here constantly have to be very careful what they say; shipwright's work is very precarious, and when a man gets anything like steady work at all he would put up with anything rather than lose his employment; if the men do not complain it is because they are not in a position to lose their work; really, I would rather be a little dog than be like some of the men on this Island; Mr. Pratt is overbearing and tyrannical; he degrades the men in every sense—degrades men quite as good as himself, only he has been pitchforked into that position; I have never given Mr. Pratt the slightest provocation, and he has treated me cruelly; the men who were taken on a few days before we were put off, and were kept on, were George Scott, Henry Moore, Thomas Winstanley, James Pashley,

Pashley, and John Chapman; if it had been a private firm I would have had a better opportunity of dealing with Mr. Pratt than I have under present circumstances; I could have got my fellow-workmen to support me, but we cannot dictate terms to the Government; I believe the payment for holidays here is detrimental to the men, for I believe the men are put off sometimes until the holidays are over so as not to have to pay for them.

Mr. Murphy stated: I have worked on the Island on and off for thirty years; Mr. Pratt has taken a dislike to me, and whenever an opportunity has occurred has singled me out for his hatred; I never liked Government employment; I was fifteen years in one private employ, and seven years again before the A.S.N. Co. broke up; circumstances have occurred which unfortunately make it necessary for me to work again. (Witness then corroborated White's statements regarding their being put off about six or seven weeks ago, while other men who were taken on after them were kept.) When a man gets employment he should have the privilege of being kept on before those who came after him, everything else being equal; that is my complaint in a nutshell; Mr. Pratt has not got common decency; when I go to speak to him he stands off (*imitating*), and Lord Hampden would not do it; I do not know why he is so vindictive against me; I have been a contractor for the Government on this Island; Mr. Darley gave me to understand that as soon as he landed on this Island he would cause inquiry to be made, and he said, "More than that; if there is any employment to be had, you shall have it"; now, through the Member for Balmain, I am informed that Mr. Darley says he cannot recommend me for any employment; now, it must have come through Pratt, and that is why I would like you to call Mr. Pratt; I do not think there is a man on this Island who cares for Mr. Pratt; I came here three mornings' running after I was discharged, and asked him for employment, and he said, "No, I want no men," and at that very time he had two men on, and he says, "What's more, when I want them I will get the best men procurable"; he has got men here that have made some botches of jobs on new work—I can prove that; I do not want any privileges—all I want, as a taxpayer and citizen (and a good one), is a day's work when the Government of this Colony have a day's work to give, and I am quite qualified to do it; I am no drunkard.

White then asked how he could find out the decision of the Committee regarding this matter, and was told he might see the Chairman after the Inquiry was over.

(Witness then retired.)

Mr. Pratt, Dock Superintendent, recalled, stated (after being informed by the Chairman of the complaints against him by White and Murphy, and asked if he cared to say anything): I have been about twenty-five years among these men, and have grown up with them, and I consider I know the men that will best suit the Department; I was away on a day's leave, and this man Murphy was taken on by Castles, who is my leading hand; he took the first man that came along; Murphy had worked very little here for me; I took White on, and I gave him to understand when he was coming on that it was not a job for life; he replied that he knew that; the majority of the men who come here think that they have no right to be put off at all—they want to rule me; I have got a certain position here, and in the interests of the Department I must uphold it—I must be master and not the men; I took on the men that came along; in our trade all workmen are supposed to be equal by the Society, but they are not by any means; for a caulking job they are all well enough, and they get through it if I stand over them; Murphy is one of those men that I require to be standing over the whole of the time, and I cannot do it; as for the statement that he is an old man, he is not so old as he looks; when you hear a man say that he "can reach as far with the mop as any of them," you can take it for granted he is not up to much; you do not know the meaning of that; it means, in caulking, that a man who is not working faithfully need not caulk part of the seam, but when the seam is paid with pitch his work will look as good as if the whole were properly caulked; I have heard that remark passed by men before to-day; I will admit I took men on after White and Murphy, far better men in every respect, and I have kept the best men in the interests of the Department.

Mr. Cruickshank mentioned that if it was a private firm, and men were put off before others who came after them there would be a strike.

Mr. Pratt said: Yes, there would have been a strike, but because it is a Government shop the Union rules do not hold good; the Government shops do not recognise the Society rules in any way; I was a good many years at Mort's Dock under Mr. Clay, taking men on and putting them off, and I always managed to keep the best men on; there are always any amount there to pick from.

Mr. Cruickshank mentioned that it was said that Mr. Pratt treated the men like dogs.

Witness: That is not true, but I will give you an instance of the way they treat me; the day after Murphy was put off he came up to me when I was busy preparing to undock the "Royal Arthur" and said, "Is there any rules in this place?" I said, "What do you mean?" "Well," he said, "Is there any rules in this Establishment?" I said, "If you go down to the shed you will find the rules posted up there"; he turned round to White and pulled out a piece of paper and said, "You hear that? He refuses to give me any information," as loud as that (*loudly*); I turned round to one of my labourers and said, "You hear this, Kinneally? I am referring this man to Mr. Broad"; they told me they were going to write a report out against me and put it on paper, but I believe they went to the Engineer-in-Chief personally; Mr. Broad happened to mention that they had seen the Chief, and I said, "I would like to speak to Mr. Darley when he comes up here," and I did so, and he was quite satisfied with what I told him; I explained it exactly as I have done to you; a day or two afterwards, before 6 o'clock Murphy, came here by the Leichhardt boat—not by the men's ferry—so as to get the first chance at me, so that I could not say I did not want men; he met me at the foot of the ladder as I was coming down, and he said, "I understand you want more men"; and I said, "You understand more than I do"; he said, "Do you know Mr. Darley said I was to be employed here whether there was any work or not?" I said, "I am not aware of it," and he said, "You will soon find out"; that was about a fortnight ago, and I have heard no more about it; there was a letter in from a Member of Parliament complaining about the way these two men were treated; it did not mention names, but simply said two shipwrights; afterwards the names were given; when Murphy came to me I did not want men; if I were an employer to-morrow I would not employ either of these men; I would like to explain about that man Scott; I have written a report about that; there are a certain number of men that are pretty well permanently employed here; when we get to a low ebb I have

have to turn men off; I keep on those whom I consider the oldest hands; Scott was one that was put off; I had three or four ships to dock for Mort's, one after another; I sent a man expressly to Scott's house and to three other men's houses, so as to distribute the work as much as possible; I sent a man over in Government time to tell him to come over in the afternoon (Saturday) to dock this ship; they came over and docked the ship, and it only took a certain number of hours; it did not take a day, but they wanted to be paid for a day; they were paid for the time they were actually employed, and were told they could have another day next day, as another ship was coming in; Scott went straight over to Mr. Broad and complained about the way he was treated, and Mr. Broad said he would have to see me in reference to it; Scott went home and wrote out about three or four foolscap sheets about me and about the supervision here; that came on for report; when Mr. Broad told me Scott was so dissatisfied I did not offer him the second docking which I had intended; I have reported the circumstances just the same as I have explained them to you; this man has had a chance to come here and explain himself before this Committee, but he preferred not to do so; I told the shipwrights if they had a grievance they should come here and state it before the Board; I called them to my office, and so that I would have a note of what I would say I wrote on a piece of paper what I told them; I said, "Any of you shipwrights who have a grievance will be required to state it before the Board if called upon"; there is another man Scott, who came here after Murphy, and Murphy cannot hold a candle to him; he is a man who worked for Ford building launches, and I have a launch to build; when I give orders for steam to be got up I give them to the fireman, because he lives on the Island—not out of disrespect to the engineer; very often the engineer is not on the Island when I need steam; I think Taaff was getting 12s. a day, and it was reduced to 10s.; I have better men getting less money; I think the shipwrights get double time for overtime in other shops, according to the Society's rules; they want to work the rules of the Society in this place, and as soon as they do that the Foreman's power will be limited, and the Department will suffer in consequence; I have taken the men off the "Powerful"; I am waiting for the crooks; O'Neill and Goldsmith have the order, I think; we are waiting for the keel and decking and hull planking for the Marine Board launch.

(Witness retired.)

At 5 p.m. the Committee adjourned until 2 p.m. on Friday, the 2nd proximo.

FRIDAY, 2 DECEMBER, 1898.

The Committee met at 2 p.m. in the Library of the Public Works Department.

PRESENT:

MR. R. POLLOCK, Chairman.  
MR. A. B. PORTUS, | MR. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

Mr. Cecil W. Darley, Engineer-in-Chief for Public Works, stated, in reply to questions:—I am a Civil Engineer; Cockatoo Island and the whole of the Docking Establishment are under my direction; the Superintendent reports to me; I visit the Island once a week at least, but sometimes more frequently—just as necessity arises; at other times I delegate some of my assistants to go.

*Stores.*—Mr. Broad has been complaining very much to me about the delays experienced in the present system of getting stores; formerly all orders for stores were invariably in the contractors' hands within twenty-four hours of the time they were written at the Dock—in fact, from the time the Superintendent named his requirement, anything urgent could be sent on in an hour; now I do not think they ever reach the Contractor's hands under three days; a complete change was made in passing all the stores through the Accountant; it was done while I was away from the Department (as President of the Metropolitan Board of Water Supply and Sewerage); they have reorganised and rearranged to an extent which has made everything most laborious and burdensome, but it is quite inevitable that a change must be brought about; the present system has proved itself an utter failure in my opinion, not only in connection with the Dock, but with all my officers along the coast; they are complaining of the very same trouble—they cannot get their stores, and the Accountant gets, I know, rather annoyed if they communicate and report to me that they are not getting the stores; I am in this position, that I give an order for a work to be carried out, and I believe that the work is going on, and I find out afterwards there are long delays. Several cases came under my notice lately, and I asked why, and they said "We have not got the material yet"; if they have a complaint to make they must make it through the Accountant; that must be altered, and I must know when delays are taking place; I have been rather slow to move in the past because I wanted to give the new system every chance; the same thing applies to the Dock; Mr. Broad is constantly asked how he is getting on with this or that, and he says he is waiting for timber, waiting for one thing and waiting for another; under the old system the Dockmaster sent down a requisition to me, my Chief Clerk brought them to me in the morning; I looked through them and made any alteration I thought necessary and initialled it; it then went on to an officer who made out the order and the Chief Clerk signed it, and at 10 o'clock in the morning it was given to the Inspector and sent out; I have been told that now there are further changes in contemplation, on account of the new Stores Board, which I am afraid will lead to still further delay if the contemplated action is taken; I am told that our officers who follow up the orders are to be transferred to the Stores Board, so I do not know how we are going to get the stock; of course it would facilitate matters if the Superintendent could order straight from the Dock, but I think the Department ought to exercise some control over the orders; if he ordered direct on the Contractor I would not know what he was ordering; suppose he ordered a ton of bolts when I thought a hundred-weight would be enough, it would be too late for me to check it when the Contractor had got the order; for years I have been trying to impress upon the officer up there that the store is simply to keep a stock to supply immediate requirements, not to carry a big stock for two or three months' supply; I hold that the bulk store should be in the Contractor's yard, and that is where my supervision of the requisitions is always exercised; I am constantly objecting to large orders—perhaps a thousand gallons of oil, or a great quantity of bolts, or a large quantity of iron; I cut them down.

[The Chairman remarked that as the contract was only of six months' duration the Department could not expect the Contractor to keep a large stock; it was not worth his while.]

Witness

Witness continuing: That is only a temporary arrangement, I think; I think it was to try to bring the stores in with the new financial year; I am decidedly of opinion that twelve months should be the minimum; there is a tendency to carry a big stock, and I object to that; in the old days, we had no trouble with the stores; if there was an occasional delay it came under our notice at once; I issued a cancelling order, and the goods were obtained elsewhere at the contractor's risk within a couple of days.

*Pumping Engines and Boilers.*—The pumping plant serves both docks; it is so arranged that when one pump is working the other cannot be repaired, but there are long spaces of time, when the ships are in dock and when they are not, during which the pumps can be repaired; there is ample time; the pumps were never a good job; they were not satisfactory at first; we have ample time for maintenance, because they are only working for a few hours a week; all the time the ship is in dock, repairs can be attended to; there is nothing I can see likely to go wrong very seriously all at once; the valves require attention.

[The Chairman said the pump was so made that new valve seats could not be put in under a few days; the evidence was so startling that the Committee went down and had a look at it for themselves; new seats for the valves could not be put in without taking off the top of the pump; from their examination the Committee thought the pumps were in a bad state.]

Witness continuing: Sometimes a ship is in dock two or three weeks, and there is time then; if one pump is out of order, we can disconnect and pump with one pump; we have done that recently; there is no necessity to dismantle both pumps at one time; of course I would like to see better machinery there, but it would be a very costly thing, and as long as we can keep life in these we should do so; I have given attention to that and thought what we could do if it did break down, and of course we could put one of our suction dredges in to pump the dock out.

*Slip.*—I think it would be an advantage if there were a small slip on the Island, so as to relieve the Docks of the Dredge plant; of course the original idea was to have a small dock in between the two, with gates at both ends, so that we could get out at either end; I have given up that idea because if we put a dock there now it would stop us increasing the length of the big dock, and we may have 700 ft. vessels coming here; a small slip there to take up all our lighter plant would be very convenient.

*Supervision.*—I think the Foreman Engineer needs some assistant foremen; of course I should explain that the work has grown very rapidly of late, and perhaps we have not kept up with it, although quite lately, the charge has been levelled against us that we have increased the supervision very much, and the supervision now is more costly than ever it was, and I think that is the cause this Board has been appointed; in my opinion we want more supervision; but seeing the Public Service Board were coming in I stopped taking action until they came; every suggestion I made was postponed until they could go into the matter, so I let it wait, but it is only practically the last twelve months that a great quantity of work has been rushed on us; the Treasurer has ordered that all the outside boats belonging to the Marine Board, the Health Board, the Stock Board, and the Military Department, should all be sent up there, and a great quantity of work has come to us from the Railway Department; we have been making all the points and crossings for the George Street Tramway; I think the work will still further increase, and in that case, to get proper supervision of the men, we must get more foremen; I believe it will pay for itself; Gibson is not able to keep up the supervision of the inside and outside men too; he has too much to do.

*Improvements in the Works.*—The plan for the proposed improvement of the work is not finally decided on; generally, I may say, the growth has been so rapid lately that I have talked it over with Mr. Broad, and we have worked up a scheme, which has not received my final approval; I quite recognise the necessity of it.

*Machinery.*—During the past year we have increased the appliances very much; we are constantly getting out new machines, but still the growth has been so rapid that our machines are behind our requirements; there has been some delay in connection with some machines which have been ordered; I do not know the cause.

*Votes.*—I do not think there would be much difficulty in increasing the Store Vote or the Floating Dock Vote; I cannot say that we have been refused; the Minister has not limited us in any way; I have tried to keep down the expenditure as much as possible, but I have generally been granted whatever votes I asked for.

*Mechanical Draftsman.*—I think a mechanical draftsman should be appointed to make the sketches for the small jobs and to make detail sketches for the foundry.

*Improvements.*—I have got a good many improvements planned out; I want to get rid of the coal heaps and put them near the Ferry Wharf, and I want a system of tramways about the Island to run through the shops, a 3 ft. 6 in. gauge, to connect the cranes and the docks with the workshops; I have got it laid down on the plan, and I have got money on this year's Estimates for carrying it out.

*Eating-room for the Men.*—It would be a suitable arrangement to put up a room for the men to have their meals in; it is one thing to put up the shed; and another to get the men to use it; we built a messroom at Garden Island and I never saw a man in it yet; the circumstances are not quite the same, however; I think such accommodation should be found for the men; I have never heard it suggested, nor ever had any application for it, so it has not been refused; if such a proposal were made, I would recommend it to the Minister; the question is,—how far should we go? Should we put a man in charge of it and boil water for them?

*Payment of Wages of Men Working on Dredges.*—There is no reason why men should have to wait some days for their pay when they have been working on dredges away from the Dock; delay of that kind has never been brought under my notice; the wages can be paid from the Advance Account; I would like to inquire into a case of that sort, because there is no reason for it all; the man ought to get a ticket from whoever he is working for to say that he has worked for a certain time; it should be put on the Cockatoo pay-sheets, and the man should receive his money; in the case of men up country, a telegram should be sent from the place where the work is done to Mr. Broad, and he could pay on the telegram; if it was found out afterwards that he had made broken time it could be taken off the next pay-sheet; there would be no difficulty about that at all.

*Board Money.*—It is under the Public Service Regulations that the board money stops at the end of three months ; it was originally twenty-one days, and I had a great deal of trouble with it ; the first case that occurred under that Regulation was very important ; I sent a man to do some very important work in reconstructing the crane on Solitary Island, and, of course, twenty-one days went in no time ; I pointed out to the Board that these men were under unusual expense in a place like that, and the Board, on the strength of that, extended it to three months, but I think that three months is subject to revision in any special case ; what gave rise to the Regulation was that men went away to what was almost permanent work, and they expected their expenses, but we do not pay them ; if there is a long job we say, "There is a place for you ; take that work" ; the Public Service Board have made a number of Regulations, but they cannot be too hard and fast, and, so far as I have seen, the Board have always been willing to listen to and deal with the special cases when brought under their notice.

*Doctors' Certificates.*—When men are absent we must have some check, because a man might go on the spree and come back unfit for work ; of course, if we found a man away frequently we would sack him ; we have all kinds of men up there, and we must take some precaution ; if any suggestion was made to me by which the Superintendent could satisfy himself that all was right, without necessitating men getting medical certificates, I would consider it ; some responsible man known to the Superintendent should certify ; the present rule is not a hard-and-fast one, and there is no reason why it should not be modified.

[Mr. Portus mentioned that in the Dredge Service Mr. Darley accepted the certificate of the Dredge-master endorsed by himself (Mr. Portus) for three days.]

*Stores.*—In the old days the stores were dealt with by the Engineer-in-Chief's branch entirely ; now they are all put under the control of the Accountant of the Public Works Department, under the Under-Secretary ; Mr. Steel is not an officer of the Engineering Department ; he is not my officer ; I have access to him ; I was told that these documents pass through twenty operations from the time when Mr. Broad says "I want such and such a thing" until it reaches the Contractor ; I have traced it through fourteen operations myself ; if Mr. Broad wants a coil of rope he gets a requisition prepared, it is sent down to my clerk, he sends it to Mr. Carleton, and he sends it to the Accountant, and the Accountant sends it to the Sub-Accountant to know if there are funds to pay for it ; well, such a performance I have not seen before, and I do not see the necessity for it ; the Sub-Accountant sends it back to a clerk to make out the order, and then it goes back to the Accountant again and to Mr. Oakley, and he marks it off ; altogether I think it passes through fourteen different operations which take about three days ; in the old days, when Mr. Broad wanted anything urgently he would send down a special messenger and we would send down and get it in a quarter of an hour, but now I do not think we could get it under two days no matter how urgently we wanted it, unless we took the bull by the horns and went and got it from the Contractor without an order ; it seems to me that there are too many branches under the Accountant's control and we cannot get on with our work ; there is too much referring—too much red tape ; if a private firm attempted to work with our present system they could not carry on ; with the old system there was no complaint, it worked uncommonly well ; it would be contrary to the practice of the Department for Mr. Broad to be allowed to order direct ; every order is issued from the Head Office and not from a sub. ; if you did that with the Manager at Cockatoo you would have to do it with the managers of other works—the District Engineers, who are in charge of works just as large ; with private works the Head Office would be at the Works and it would still go through the Head Office and pass through their books ; the Manager at Cockatoo has a very small staff—in fact they have kept drawing everybody away from there ; I have had great difficulty in getting what assistance there is there now ; I know Mr. Broad ought to have even more assistance, but they want to keep all the accounts and the store books down here ; I pointed out that could not be done ; personally I would not mind Mr. Broad ordering the stores direct ; he manages the works uncommonly well and is a most desirable officer, but we might get a man in whom I would not have confidence ; in the old days I was constantly putting my pen through big orders ; I have scores of times written out on paper, "The dock is not the place to carry stock" ; things were not wanted, but simply because a man found a nice line in town he made a requisition for it where there was no immediate requirement for it ; that frequently happened in the old days, but it has not happened lately because Mr. Broad knows my wishes and tried to carry them out ; the daily requisitions in nine cases out of ten are distinctly for stock ; what you (the Committee) propose is that he should have power to order urgent things ; the bulk of the requisitions are for replenishing stock ; you propose that Mr. Broad should have power to order the special items direct ; all urgent things I believe the Manager ought to order ; I would give him power to order anything he urgently needed from the importers ; as a matter of fact it is occasionally done now and he follows it up with a requisition, but that is irregular ; there would be a risk, if that practice became too general, of the orders not coming through ; the orders and the butts are the one check of the whole system.

[Chairman : We know sufficient about mechanical work to make the statement that it cannot be done properly unless the Manager of a place like that has the power of getting things.]

Witness, continuing : I think Mr. Broad might have the power, and we might recognise it officially ; the difficulty is that a little laxity in not sending down the requisitions will mean that the order will not go to the Contractor, and without the order he cannot get his money ; the whole system of departmental book-keeping might be upset ; that is the most important check in the system ; as long as it can be kept limited to really urgent things, and then have some system by which to make sure that it is followed up by a requisition and marked "Obtained," I would be quite willing to agree.

[Mr. Cruickshank said : From an official point of view the Manager at Cockatoo can do nothing without authority ; he has no power at all.]

Witness : That is the whole system ; I can do nothing without authority ; I am even more tied than they are ; if I send Mr. Broad up authority to do a certain thing he can do it ; if I send a recommendation up to the Minister to build a boat, and he approves of it, you would think that would be sufficient for me to order the wood to build it with ; no, I must send up a recommendation to buy the wood to build the boat, and so on with everything else ; but I am quite prepared to recommend that Mr. Broad should have a free hand so long as a proper system is instituted to make sure that the requisitions go on.

*Boilers*

*Boilers and Pumping Machinery.*—The boilers want resetting; they were not condemned; we could not set them without stopping the Dock; I have always thought we could get work out of them still, but the settings were bad.

Mr. Cruickshank: There seemed to be no periodical examination of the boilers, and nobody seemed to have the duty of examining them; they have never been pulled to pieces until we were there and did it.

Witness: Of course it could not be done until we got the other boilers; I should think the foreman boilermaker would examine them.

Mr. Cruickshank: The foreman boilermaker is all right, but there ought to be somebody to check him.

Witness: The engines can be maintained while the dock is free; I think we can carry on with them some time longer; I have been down the pumps lately.

Mr. Cruickshank: They are in a very bad state, and the internal valve faces cannot be got out without pulling the whole thing to pieces, and you cannot do that in a day or a week, and there are 200 valves; the majority of the valve faces are not there; they are gone; that being the case there is no doubt the thing wants a thorough overhaul at once; not only that, you know those girders that were put underneath? they are faulty, especially on one engine, and we found out the fault and suggested what should be done; we went all over the machinery, and it wants a thorough overhaul as soon as possible, and that could be done, as Mr. Portus suggests, by putting in a sand-pump dredge to pump out the dock; I think it would take about three weeks to do the whole of the valve faces.

Witness: While ships are in dock it could be done, one pump at a time.

Mr. Cruickshank: Both these pumps are very much out of line; I believed if it were lined off it could be made very much better.

Witness: I think it is the down thrust.

Mr. Cruickshank: The foreman said he thought it was five-sixteenths of an inch out of centre; of course it is a big job to tackle, but I think if it were tackled and if new valves were put in it would last for some years longer.

Witness: I think there would be no difficulty in doing one pump while the other was being used; my intention was to get one thoroughly overhauled and work the other; it has not been reported to me that these pumps are in such a bad state; the discharge valves can easily be got at, I have seen them in the shop several times; but the suction valves have not been reported to me at all.

Mr. Cruickshank: They ought to have been; that is why I say it ought to be examined periodically once in twelve months and a report furnished to you; if that had been done you would have known; we did not know until we went down below, and we would have gone down below only for this evidence; the suction valves are inside the chamber, and they cannot be got out without taking the top off.

*Lifting Appliances—Big Dock.*—The shore cranes at the big Dock will only lift 4 tons; with the present appliances we have we could not lift the rudder of the "Himalaya" in the dock; we have a 20-ton fixed crane on the wharf by the entrance to the old dock; I had plans prepared for floating shears which we could use for lifting heavy weights at the dock or anywhere in the harbour; I had a sum placed on the Estimates two or three times, but it was struck off in Cabinet; with this we could lift anything over the caisson and could run a tramway at the bottom of the dock in the centre on which to bring the weights to the caisson to be lifted; I want to get something like a 70 or 80-ton floating crane or shearlegs; it would be far more useful in the harbour to have a floating shearlegs than to have a fixed crane, and all the authorities at Home agree with me; they are giving up big fixed cranes now except where there is plenty of work for them; if we had a big fixed crane there it would rust out before it would work out.

*Who Decides what Work is to be done.*—If a dredge is sent to Cockatoo the Superintendent in charge of the dredges decides what is to be done; it is all set forth beforehand and sent to me; the Master Engineer on the dredge makes out a list of the repairs required on the dredge, and Mr. Portus looks over it and initials it and sends it up to me for approval, and then it is sent to the Dock.

Mr. Portus: The proof that the system works well is that it has gone on for twenty-five years and there has been no accident.

Mr. Cruickshank: It seems to me that all is left to the foremen; there is no check on them.

Witness: I think it should be left to the Chief Engineer of the steamer.

Mr. Cruickshank: If we took the certificate of the Chief Engineer there would be no necessity for the Board of Trade or the Marine Board.

Mr. Portus: I have a return in the office of every boat in the service. You accept the certificates of these engineers for all work they examine for you up there.

Mr. Cruickshank: They make an affidavit.

Mr. Portus: We can get them to make an affidavit, but certainly there has been no accident. The appliances are periodically overhauled whenever it suits the Department to have them overhauled.

Mr. Cruickshank: I am of opinion that whoever is responsible for the work should examine it personally, and so much should not be left to the foremen.

Witness: We have not got officers enough.

*Apprentices.*—I went fully into the matter of apprentices with Mr. Broad some time ago, and the Board have postponed the whole thing until they can look into it; what Mr. Broad has outlined is what I would like to see carried out; I do not approve of boys intended for tradesmen being required to pass a high examination in algebra and mathematics and so on before they can be apprenticed; that is for a better class of young fellows who are to go through the shops and come into the office and become engineers.

*Engineer, Pumping Station.*—I do not think it necessary for the pumping engines and boilers to be overlooked by a certificated engineer the same as on the dredges; the Superintendent has got a capable engineer in Mr. Gibson, and a capable boilermaker in Mr. Fletcher, and those two men's joint reports should



should be sufficient; if all these defects have been suddenly announced they have certainly never been brought under my notice, and there is certainly some blame attaching to the persons who have kept all this to themselves until now; I know they were not a good job from the first, but I thought good care and proper maintenance would keep them going for some years to come; when they were first put down, and started I thought they were going to leave the engine-room, but those beams tied it down and acted as struts at the same time; it would require a little consideration as to whether a spare shaft is necessary on account of the expense; there is nothing to show that the crank shaft is weak at all.

*Machinery.*—We want a lot more tools and planing machines; we are weak in planing machines simply on account of this work we have got for the tramways; the Department has not been charging the Tramway Branch with the time the planing machines are on their work; I have a report before me now in order to make up a charge against them.

*Accounts.*—Mr. Cruickshank: The accounts are made out in such a way that nobody can understand them and nobody would sign them.

Witness: I know that has been a sore point for a long time; complaints have reached me, indirectly, from you, and from other Departments that we have worked for, that they get their vouchers piecemeal; as long as twenty-five years ago I complained about the same thing myself when I was in charge of works in the Newcastle district; I complained that I never could find out what any particular thing cost; from that day to this it has been a sore point; I made a recommendation last year that we should have a special vote to charge all these jobs to, so as to enable us to get the money to pay them until the whole of the accounts could be brought together, and then one account could be sent; there is a difficulty in the way of rendering the accounts monthly on account of the store issues being so much behind; if we had a bigger staff we could do it; we got a £5,000 Trust Account to charge everything to instead of sending vouchers on to-day and to-morrow and the next day, and then when everything was complete we proposed to send in one account; we commenced on that, and then the Auditor-General stopped it and closed it; I do not profess to know much about accounts, but I know I have tried to get this straight; there is a difficulty in making out the accounts in detail unless we get a much larger staff up there; the store issues are always two or three months behind in balancing; we had a prime cost clerk at one time, but he was removed and all the accounts placed under Mr. Steel, the Accountant, the same as putting all the stores under the Accountant; I have nothing to say in favour of the present system of rendering the accounts or obtaining stores; some radical change is wanted; it seems to me it would be a very simple thing to have a prime cost clerk up there to make out the vouchers from the pay-sheets and from the store account, and make up the account the day the job leaves the works.

(Witness then retired.)

Mr. Alexander Milne and Mr. William Milne, of Messrs. Milne Brothers, 166, Sussex-street, contractors, were called:—

Mr. Alex. Milne stated, in reply to questions:—We are contractors for cocks and valves and fittings, No. 2 engineer's stores; we have been doing various contracts for the Government for the last fifteen years.

*Duration of Contract.*—The contract is for six months, from July to December; I do not think it is long enough; I would suggest that it should be from three to five years, the same as they have in some of the other Departments; the Water and Sewerage Board have a five years' contract, and the Public Works enter in to a five years' contract for labour and material for small valves and hydrants for country towns water supplies; those are only small stores and the Water and Sewerage contract is for small stores.

*Delivery Receipts.*—When goods are delivered at Cockatoo Island nobody will sign for them until they are inspected; we work for all the other Departments and they all sign the receipts as soon as the goods are delivered; I think it is only a fair thing to expect a receipt when we deliver fittings; if they are bad send them back; what we want is merely a receipt to say that the goods have been supplied—good, bad, or indifferent; perhaps two or three days we get the tickets back altered; we cannot tell whether our man has delivered the fittings or not; that causes a lot of loss to us; we have sent them the original packets from England, such as oil feeders, &c., six in a packet, and the tickets have come back with one knocked off, "a dummy found"; well, we never come across dummies when we open a packet.

*Goods Supplied without Orders.*—Very often we supply fittings without orders in order to avoid delay, and often at great inconvenience to ourselves.

*Stock.*—I would suggest that in future the Island should be allowed to lay in a stock; they know better than we can anticipate their own requirements; it is hardly fair to expect a contractor to know what is likely to be wanted in the Dredge Department some months ahead; you will never get rid of the delay unless you keep a stock; you know the size of every valve in the dredges, and what is the harm of keeping a stock of each of them?

[Mr. Portus: There are forty-five dredges, and there are different patterns of valves and cocks on each of them.]

The cocks and valves in our contract can be fitted into any dredge, notwithstanding the fact that they vary as you say; in the Railway Department they can give you an estimate of the probable quantity for twelve months; you cannot go wrong in making up the quantity, because it is generally under what they require, and the goods are always ready.

Mr. John Carruthers, Chief Engineer, and Master of Sydney Dredges, stated in reply to questions:—I have been twenty-five years in the Service; I have charge of all the dredging plant in Sydney District; I know the manner in which the work is carried out at Fitzroy Dock.

*Supervision.*—I think there needs to be more supervision over the men working there; there are two foremen engineers in the place; I do not know whether one of them is considered the outside foreman or not, but one of them goes round occasionally to see what the men are doing; there should be a leading hand in charge of all jobs where two or three men are employed.

Overtime.

*Overtime.*—A good deal of overtime is worked there, chiefly owing to the want of lathes ; another cause is that vessels have to be hurried out of dock to make room for others coming in ; last night and to-day they were working at the new dredge "Antleon," because the dock is wanted for the men-o'-war ; that is a very frequent occurrence.

*Slip.*—I think it would be advisable to have a slip for small vessels ; it is very requisite at Cockatoo ; the most convenient place for it would be near the carpenter's shop, to the southward of the dock ; of course I cannot tell what sort of a bottom it has got, but it looks to me to be a suitable place.

*Payment of Wages when Working on Dredges.*—As soon as a man has finished his work the Dredge-master makes out a pay-sheet for him and sends it in to the office here ; then he has finished with it ; I do not know when the man gets the money, but if he does not get it he very soon lets me know ; I am frequently up at the Dock.

*Walking Time.*—The men from the Dock working on board the dredges down the harbour start bell to bell ; I do not allow them any walking time ; the dredge is working within a reasonable distance of the city ; when they are lying out in the stream we make provision for their getting on board.

*Cook.*—If men from the Docks working on board the dredges want anything cooked, the cook always does it ; I have never had a complaint about it ; all the dredges have cooks ; the Department provides the cooks and galleys and the men find the food.

(Witness retired.)

Mr. T. F. Rossbach, Clerk, Dredge Service, stated, in reply to questions :—I am Mr. Portus' clerk.

*Payment of Wages.*—Men from Cockatoo Island when working on dredges in the Harbour are as a rule paid their wages directly the work is done ; I know one case lately where the driver of a dredge at Cook's River forgot to send the time in ; but there is no delay as far as the Dredge Service is concerned that I know of ; if a man knocked off work on a dredge in the Harbour on Thursday night he would very likely get his pay on Saturday ; I would send the money to Cockatoo ; I know what it was with the Dredge Service some time ago, and that is how I came to alter the system so far as we were concerned ; men were sent away to the country districts and their pay-sheets came through the office, and had to go right through the whole course of the Accounts Branch before any money was banked to the Dredge-master's account to pay the men ; I noticed this delay—sometimes as much as six weeks' money owing—and I started the system of drawing cheques on Mr. Portus' account ; the men got the cheques by return post ; the old system is still followed in other Branches of the Department ; I think Trial Bay was one of the last places where there was a complaint ; the difficulty is that the officers in the country do not know the time the pay-sheets should start, as the men are paid for the time they are travelling, and they do not know the time the men arrive at the Dock after their job is completed ; I think the Dock should make out the pay-sheets for all the men ; when a man goes away from the Dock he should be given a card with his name, position, and rate of pay stated on it, and it should also state the time he is paid up to at Cockatoo, and the officer he is going to would fill in day by day the time he was working ; if a man returned in time for the Dock pay day he could bring this with him, and if he was not coming back in time for that the officer could telegraph the time to the Dock, and by that means the Dock would have a complete record of his time and could pay on it ; in the Dredge Service we have got over the difficulty because Mr. Portus has an advance account at the bank ; he takes the responsibility of the correctness of the pay-sheets he draws cheques for ; I am not like a country officer ; I can ring up the Dock and find out whether the time shown on the sheet fits in with the Dock pay-sheets, and adjust at once any little loss of time in travelling ; a country officer cannot do that ; I think all the pay-sheets should be made up at the Dock, who should receive telegrams for the absent men's time.

(Witness retired.)

The Committee then decided that their next meeting should be held in Mr. Cruickshank's office after the transcription of the notes of evidence was completed.

The meeting was then adjourned.

FRIDAY, 9 DECEMBER, 1898.

The Committee met at 2 p.m. at the office of Mr. Cruickshank, Marine Board Engineer Surveyor.

PRESENT :—

Mr. R. POLLOCK, Chairman.

Mr. A. B. PORTUS,

Mr. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Secretary reported having written to Mr. Jas. Hoey, ex-Managing Superintendent of the Docking Establishment, inviting him to attend to give evidence.

Mr. Hoey not being in attendance the Committee proceeded to consider and discuss the evidence, laying down the lines of their report.

During the consideration of the evidence Mr. Cruickshank received a telegram from Mr. Hoey saying he had just received the Secretary's letter, but too late to attend the meeting, and could attend any day next week. The Secretary was directed to inform him that Committee would hear his evidence on Monday, the 12th instant, at 2 p.m.

The Committee then further considered the evidence, and as a result of their deliberations the Secretary drew up a draft report.

At 4.30 p.m. the Committee adjourned until 2 p.m. on Monday, the 12th instant.

Minute

## Minute Paper.

The Engineer-in-Chief for Harbours and Rivers to the Under-Secretary for Public Works.

Department of Public Works, Harbours and Rivers Branch, Sydney, 15th September, 1898.

THE need of appliances for lifting heavy weights, such as locomotives, boilers, machines, etc., from vessels has been a long-felt want in the Port of Sydney, and it is well known that shipowners in British ports demand a high rate of freight on all heavy goods owing to the absence of proper appliances in this harbour for discharging the goods from vessels on arrival. Formerly when the Government purchased locomotives f.o.b. London it was the usual practice to pay about £50 for landing each locomotive, this cost being incurred rigging up heavy lifting gear.

Latterly the manufacturers have had to land and complete the engines here, so the cost of landing is not directly felt, but the contractors must still pay somewhere about the same price, and proportionately increase their contract sum.

In Melbourne a fixed 50-ton crane has been provided and has been frequently called into use.

For general purposes a fixed crane is not so convenient or useful as a floating crane. The latter has the advantage, inasmuch as it can be taken alongside the vessel requiring its services, the load taken out and landed when required without the vessel having to leave the discharging berth.

Heavy screw propellers often have to be taken from vessels in the dock and sent to a workshop. The crane could go to the end of the dock, lift out the propeller, take it away, and land it at the works.

I therefore recommend that a sum be placed on the next Estimates sufficient to procure a crane capable of lifting 40 tons with a clear reach from side of pontoon of 30 ft. to centre of lift.

I estimate the cost of such a crane at £8,000 complete.

C. W. DARLEY.

Copy of Minute from Captain Jackson to Under Secretary for Finance and Trade.

SOME kind of appliance for lifting heavy weights is a want long felt by the shipping community of the port. Nothing could be better to meet the requirements than a floating crane as suggested by the Engineer-in-Chief for Harbours and Rivers. I would, however, suggest a 50-ton crane.

Circular Quay, 21st September, 1891.

J. J.

MONDAY, 12 DECEMBER, 1898.

The Committee met at Mr. Cruickshank's office at 2 p.m.

PRESENT :—

MR. R. POLLOCK, Chairman.  
MR. A. B. PORTUS, | MR. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Secretary reported the receipt of a letter from Mr. McFarlane, representing Messrs. Goodlet and Smith. (See page 88.)

Mr. James Hoey, ex-Managing Superintendent, Fitzroy Dock, stated, in reply to questions :—I was Superintendent of the Cockatoo Docks for about twenty years, but it was in two different capacities ; it is five years since I left there.

Chairman : We are anxious to obtain any information we can about the working of the Dock ; if you have anything to tell us, we will be glad to hear it.

Mr. Hoey : I will begin with the man that was there the longest, Mr. Gibson ; in the first place, I may say, that all the foremen were my own appointments ; Gibson worked into his job as foreman ; we began in a small way and worked the thing up gradually ; I found Gibson a first-class mechanic, with a natural ability that way, although he knew nothing of the technicalities of the trade ; he was a man of resource and most energetic ; he was always perfectly loyal to me and recognised my position in every way ; I have nothing whatever to say to depreciate him, and if I had to go over the work again, I would most willingly try to get him the same position, after nearly twenty years' experience of him.

Mr. Fletcher.—Fletcher was a man that I recommended for appointment, on the recommendation of Mr. George Davidson, who was at that time the Superintending Engineer of the A.S.N. Co. ; I was not aware then that he was utterly illiterate and could not sign his name ; he has no technical knowledge connected with boiler-making ; he could neither read nor write up till the time I left, except to sign his name.

Mr. Cruickshank : But both these men are good mechanics ?

Mr. Hoey : Yes ; Fletcher is a good workman ; he would put the utmost energy into work that was likely to bring him under the notice of those higher than himself, but with ordinary repair work, there was no man who gave me more trouble ; he was careless and indifferent about dredge repairs and all minor work ; there was another difficulty I had to contend with ; he is a professional boat-sailer, and when hands had to be discharged, through slackness of work, he would keep on the crews of his boats and recommend the discharge of others who had been there a much longer time ; I never left the discharge of the men entirely to the foreman ; a list of the men it was proposed to discharge had to be brought to me, and I happened to have a clerk named Morling who knew all about it ; I submitted the list to him and he told me, and I put my pencil through the crew and left the other men on ; that kind of thing has gone on to a tremendous extent since I left, and the place is filled with his own relatives and the relatives of his sons ; with such a system there can be no discipline ; that can be easily ascertained.

Mr. Cruickshank : It is a large order to say the place is filled.

Mr. Hoey : Well, largely I mean ; I do not mean to say the whole lot are relatives or members of his boat crews ; then there is another thing : at the time that I left, and some time before, the relations between Gibson and Fletcher were very strained, and you will find that after Mr. Broad came he granted Fletcher a lathe and an engineers' drilling machine, and he has got an engineer, and that engineer has often got a helper.

Chairman : What is the engineer for ?

Mr. Hoey : That is for you to find out ; I could never find out, unless it was in order that he could do any little thing he wanted without going to Gibson ; the whole of the work that Gibson had to do for Fletcher in my time would not amount to half a day in a week ; that has all been done since I left.

Chairman :

Chairman : That is only hearsay on your part ?

Mr. Cruickshank : That is not evidence ; you are not certain.

Mr. Hoey : Do you not want to know these things ? Are you not there to find out what is taking place ? The Public Service Act says that it (*en inquiry*) is not to be on simply judicial lines.

Mr. Cruickshank : We do not want to be told by you what evidence we are to take ; I object to your assuming that tone.

Chairman : Of course you cannot be certain of anything that has happened since you left the Island ?

Mr. Hoey : No ; but still you want to know if anything is going wrong on the Island, and nobody else will tell you unless I tell you ; they are afraid to tell you.

Chairman : We only want to know what you know of your own knowledge as facts ?

Mr. Hoey : I will say of my own knowledge, and as fact, that no such thing took place in my time, as that the foreman boilermaker had an engineer under his own supervision ; you can find out if there is now ; it is a matter of public notoriety, as well known as it can be, that the place is filled with Fletcher's relatives and boats' crews.

Mr. Cruickshank : This is simply what somebody else has told you ; you do not know of your own knowledge.

Mr. Hoey : I know that ; and I know that the Public Service Act provides distinctly that an inquiry is not to be on judicial lines at all ; the Public Service Board are supposed to take anything as evidence that they can afterwards work upon—any information that they can get.

Mr. Portus : Do you know any of the relatives by name ?

Mr. Hoey : He has got three sons there and a brother-in-law ; I could give the names of his sons, but it is a matter of notoriety, and there can be no difficulty in finding it out—not the slightest.

Chairman : Well, Mr. Hoey, is there anything else ?

Mr. Hoey : I suppose I can tell you about Mr. Pratt now, but, of course, if you do not want to hear it, I will not tell you about it ; I was the means of having him appointed, I am sorry to say ; I had two or three years with him ; I found him to have a little more education than the others had ; he could write a letter, but I found that he had no technical knowledge of his business—none whatever—at shipwrighting ; I also found him to be a most tyrannical man to his men, and he used most vile language to them, for which I had to correct him more than once ; I thought I was getting a man like his two brothers, that are well enough known to many of you here, gentlemanly men in every respect ; and instead of that I got the very opposite, and if I had known his character was such he would never have been here ; I like men treated properly ; I always treated them properly myself ; but they do not get that from him ; when I found this out I did not report the man ; I was not going to do that sort of thing, but I spoke to him and told him that it must cease or there would be some trouble over it ; after that he took very good care not to let me hear it, but it did not stop ; in my time he had no foreman to do the work for him ; he could not lay a ship down ; he does not know how to look at it ; he could not lay the lines of a ship down in my time ; he may have learned it since ; it is five years since I left, and he has had time to learn ; when I was there a draftsman was sent from the office to do it ; Hayes could lay a ship with anybody.

Mr. Portus : Did you ever send for Pratt and ask him to do it ?

Mr. Hoey : There is no need to send for a man to lay a ship down, when he could not understand the drawing ; it would only humiliate the man ; the "Golden Fleece" was built there in my time ; Pratt did not lay down her lines ; he built her, but he had better men than himself to take things off with ; he had some first-class shipwrights there that could do anything ; Mr. Orr did not lay down vessels in Mr. Hayes' time ; I have seen Hayes lay them down frequently ; he could have made the scale drawings if he had been asked to ; with respect to Mr. Kidd, whom I always called and considered to be a foreman, I never in my experience met a better man ; he is a man with a thorough technical knowledge of his work, is an excellent draftsman to scale or full size, and one of the most careful patternmakers that ever I met with ; the minimum amount of work to the engineers always resulted from his patternmaking ; that man in my time had the usual privilege of a foreman not to take out a ticket, and to get his money without getting into the ruck along with the rest of the men ; not long after I left he was degraded to the position of having to go among the ruck ; he is, without a doubt, the ablest man on that Island ; that is the treatment he got there ; I do not know who did it ; I daresay you know it.

*Foreman Labourer.*—In my time there was no foreman labourer, and I never needed one ; I was never able to see what any such individual was wanted for ; each Department had its own labourers ; I doubt whether they are doing half the work now as compared with when I was there in the year 1892, when I had 560 hands, and they have never had so many since ; then I had no foreman labourer ; there was a gang of labourers belonging to the Dock, and they were quite sufficient to do the moving of the vessels, especially as if they have to go any distance they get a pull from one of the tugs ; they have a foreman labourer at Mort's, but you cannot compare Fitzroy Dock and Mort's Dock ; when there were forty or fifty men scrubbing a ship it was Pratt's business to look after them ; he had always a leading labourer getting 6d. a day more than the rest ; he would very likely have 6d. a day more all the time, and he would be put on that job ; the foreman labourer has nothing to do with the scrubbing ; that is still in Pratt's hands ; that work of cutting down the rocks requires a man to be constantly on the job ; it does not want a man that can be called upon at any time to go to the engineer's shop or the boiler shop or to Mr. Pratt ; it requires a quarryman, not a sailor, as a matter of fact ; when I had those 560 men I had on board the "Sobraon" a leading boilermaker and a leading shipwright and a crowd of men ; the one was Anderson and the other was Castle ; they did not get extra pay for that ; the only difference was that they had not to work ; I daresay I had 100 men or more on the "Sobraon" ; for the other 460 there was only the ordinary staff of foremen ; I am sure they were quite sufficient to overlook these men ; there was another job on about the same time, the "Gropor," and I put a man named Green on to the hull ; the way they do it at Mort's is that they put on a leading man the same as I did, but he has nothing to do with any other job ; he devotes his whole attention

attention to that job ; I asked the Engineer-in-Chief for extra pay for these leading hands, but he would not give it ; they ought to have at least 2s. extra per day ; there was one man, Morrison, an engineer that I put on and gave him 2s. a day extra, and the new Manager took it off again ; he was the best man on the Island next to Mr. Gibson himself.

*Office Staff.*—I want to say a little about the office business—what it cost in my time ; I am not speaking of the stores, but of what was done in the office where I was myself ; that was done by one man and one boy, and at the time that the £50,000 was spent in wages in one year that was all the staff I had ; the work was done efficiently and thoroughly, and nobody was oppressed with too much to do ; Morling had £175 a year and the boy from 5s. to about £1 a week ; they also registered every paper that came to the office ; minute papers, accounts, requisitions, vouchers, and everything were entered the day they arrived and the day they left ; they made out the cost of every individual job, and sometimes in one fortnight there would be an alphabet two and a half times over to indicate the jobs ; they took all that out, and it would agree to a penny with the pay-sheets ; Fuller was there in those days, but I never recognised him as connected with the Dock at all ; he compiled some book for the office from the sheets made up by Morling, and from the store docketts ; he was of no use to me ; the same thing is being done now by Delargie at the Head Office.

*Stores.*—The requisitions for Stores was made out by Halliwell, after a consultation with me ; I arranged what everybody had to order ; I would not care to speak about Halliwell, as he is dead ; if he were not dead I would speak freely ; he brought all the vouchers to me, and if they were incorrect, or if there was any minute to go on the back of them, I would dictate it and he would write it, and I would sign it ; after Halliwell made out the requisitions, which were signed by me, they went to the Head Office ; there was no delay in getting stores, because I had *carte-blanche* to do as I liked ; if I wanted an article in a hurry before there was time for the requisitions to go through I sent for it direct, and immediately I got it I covered it with a requisition, and frequently the job was finished before I got the official order on the contractor ; I had no reason to complain of delay ; it was not against the rules for me to do this, because the Engineer-in-Chief allowed me to do it ; what he, Mr. Moriarty, said to me was, “Damn red tape ; you look after the work and never mind anybody ; it is work I want and not red tape” ; that is what Mr. Moriarty said to me ; whether there is red tape now of course I do not know, and I do not care ; in my time Mr. Fulton was outdoor Inspector, and I was responsible for all the contracts done outside in iron work ; Mr. Fulton was my assistant ; he reported to me at 9 o'clock every morning, except Saturday, the progress of these things ; if there was any difficulty I went with him to the contractor, and before I signed a voucher I went and examined everything ; many of these vouchers were progress vouchers, and I satisfied myself that the value was there from my own knowledge ; if I wanted anything I could get it ; if I had not had *carte blanche* it would have been impossible to carry on ; for instance, it was a very common thing for a shaft in those grab dredges to break ; the broken shaft would be brought to me immediately ; I would see the dimensions, and send somebody away to the contractor to pick out a shaft the right size ; the men would be put on the job all night, and it would be got away right off ; when vessels come into dock we might find faulty plates ; we might not have the plates in stock, as Mr. Darley would not allow us to carry sufficient stock, so we had to send for them ; if I had to go through all this red tape the vessel might be in dock for a week before I got the plate ; I did not do that ; Mr. Darley and Mr. Moriarty allowed me to make my own arrangements, and in many cases that obviated the crew having to stand idle for a week.

Mr. Cruickshank : We would like to have your opinion of what power the man holding the position of Managing Superintendent at Cockatoo should have, from your experience of twenty years there.

Mr. Hoey : I would distinctly say that in the matter of stores, especially for repairs, they should revert to the old system that I worked under ; it would altogether depend upon whether you had the right man in the right place ; I would not like to say anything about that ; it would be better for the man in the position to order it himself without going to the Head Office ; I had the power and any departure from that is a mistake ; it is wasteful ; I had to cover it with an order afterwards, and he would have to do the same ; the Engineer-in-Chief is a Civil Engineer I suppose ; I know he is not a Marine Engineer.

Mr. Cruickshank : Speaking to you as a mechanical engineer with a large experience of this place, from your mechanical knowledge should this establishment be under a Civil Engineer ?

Mr. Hoey : No, I am sure it is not ; I found that out many and many a time ; I do not know what freedom anybody there has now, but I had freedom almost amounting to license ; I was allowed to exercise my own judgment in almost everything in Fitzroy Dock, and I have put aside scores and scores of expensive plants, and have done things in a simple inexpensive way ; I think the man who should have control of this place should be a man with a life-long experience in marine engineering, and unless he can show that he is not fit for the job ; I have not the slightest hesitation in saying that ; he ought to be a man that would not be in a way under the control of his foreman ; he should be able to control the foremen, and the foremen should control the workmen.

Mr. Portus : I think you misunderstand the question ; Mr. Cruickshank asks who should be the supreme head ; do you think the Engineer-in-Chief should be a Marine Engineer ?

Mr. Hoey : No, I do not go that length ; if you put a marine engineer in charge of the dock it would be sufficient ; you cannot expect the man in charge of the Public Works to have universal knowledge ; what you want as General Superintendent of the Fitzroy Dock is a man who would be able to thoroughly direct his foremen ; my practice when I got orders from the Head Office was, if they were simple things that a foreman could easily understand, I would send him in a copy of the order ; but if the job was a matter of consequence I always called for the foreman that would have the principal part of the work to do, and had a consultation with him, and we decided upon a course of action ; if it was an urgent job we arranged what work might stand over ; I never lost sight of a job until it was finished ; I have no hesitation in saying that things will never go right at Fitzroy Dock unless the head of it is a thorough, not only mechanical, but marine engineer ; and with that, Mr. Cruickshank, there is no need that his superior officer, the Engineer-in-Chief, should be a marine engineer ; I think the place ought to be self-contained.

*Idling by Dredge-men when in Dock.*—I will go further than that ; the Superintendent at Cockatoo should have some control over the dredges and tugs that go to the Dock ; he should be able to utilise labour that is otherwise not utilised ; it is utterly impossible that Mr. Portus can look after the crews

crews that come there and do his other work as well ; there are many and many instances where those men are days and days idle, and they can be utilised about the place, if not on board the dredges ; they do not assist in the repairs of the dredges ; Dock men do not go on board dredges and put on buckets and pins and things of that sort ; that is finishing-up work ; I will give you an instance : an engineer in one of the largest tugs came to Gibson and wanted an engineer to do so-and-so ; Gibson thought it was a little bit beyond the mark, so he came to me and said, "So-and-so wants an engineer to do such-and-such a job" ; "I said, "Come on board with me, John," and we went on board, and the man was sitting on board aft in the cabin smoking his pipe along with the captain ; he was doing nothing whatever in the way of work ; I said, "What do you mean by this?" Why do you ask for a man from the shop when you are doing nothing yourself" ; I do not remember what he answered ; I said, "You will not get a man ; and, if the thing is not done I will report you to Mr. Portus" ; now, I say that the Superintendent, being on the Island, should have the power to prevent anything of that sort.

Mr. Portus : Was it not arranged that Mr. Gibson and I should set out work for the engineer to do, distinct from the other work ?

Mr. Hoey : It was not done in my time ; you have an instance of a captain coming to me for six men to paint his bulwarks, and he had men on board there that could have done it themselves ; I would not do it, and brought it under your notice ; I have seen a man on board one of the dredges spend days with arms folded looking down at the Fitzroy Dock men working ; but this man had a dredge master over him at the time, so that it would have been a delicate matter to have interfered ; he was an engineer—a driver ; the dredges carry from nine to fourteen or fifteen hands.

Mr. Portus : There are about ten ; they consist of engineer and master, the driver, firemen, seamen, cook, and watchman ; these men are engaged on the inside work, while the Dock men do the outside work ; the crew of a tug generally consists of four people—master, engineer, fireman, and deck hand.

Mr. Hoey : Then there are the barges, grab-dredges, the coxswain and crews of which frequently do nothing, and nobody controls them.

*Pumping Machinery.*—When I was there the pumping machinery at the big dock was under my charge.

Mr. Cruickshank : How often was it examined ?

Mr. Hoey : Frequently, but there was no regular time for doing it ; of course, we only worked it at long intervals ; it was not like an engine that was constantly working, or like the engines of a steamer ; there was no periodical examination such as prevails in steamers ; we did not overhaul them regularly ; we had plenty of time to do anything we wanted there when vessels were in dock ; I have been right through the whole thing myself ; when it was handed over to me there was a great row, and it seemed as if it would knock the place down ; I had to go right through it to the lowest suction valve, and I found the frame of that working on two or three bolts like a hinge ; we fixed up that ; and the valve that was intended to be used, when the new dock was dry, to pump the old dock was perfectly useless, for it just lifted off the face ; we made an arrangement to keep it on to its face ; that plant was no credit to the man that altered the original design—Sir John Fowler ; the Works Department sent Home to get prices for centrifugal pumps, the modern style, and he altered it to what you have seen ; I was so informed by Mr. Moriarty ; the Dock was designed by Mr. Skinner, and Mr. Maekenzie altered it and spoilt it ; he made it dangerous for the men to work in ; I started this machinery and we had a lot of trouble with it ; when I was there I had serious fears that the pumps would decay fast, as they were only cast iron—in fact, they did show signs of decay, and there should very soon be a renewal there ; I mean the rams ; many parts of the structure were of cast iron that should have been gun metal ; the arrangements of that multiplicity of valves were very defective too, and, of course, one or two of them breaking off largely spoilt the pumping ; I look upon the whole thing as a mechanical botch, not in accordance with the present practice ; there is another thing I can tell you that perhaps you do not know—if that machinery breaks down there is no possible means of pumping either of the docks ; there will be a stoppage of both the docks ; if the "Groper" went in, and stayed in, she could pump it out, but that would be a curious proceeding, and in the old dock there would not be room for anything else in along with her ; I recommended the purchase of those two boilers from the Abattoirs, and on the same paper I advised the fixing here of a centrifugal pump, to be worked with these boilers from the old engine-house, and then they would have had a duplicate plant for Fitzroy Dock ; it seemed to be approved of in a general way, but it never came to anything ; I had nothing to do with the setting up of the original boilers at the pumping station ; I examined them and repaired them ; they are about as fool of a job as ever I saw in the fixing of tubes ; there was nothing wrong with them after we went all over them and put them right ; they were expanded tubes, but not properly done, and we cut them off and beaded them over ; I did not get the new boilers for there at all ; it was for the old plant ; I was going to use one to drive everything in the machine-shop and the boiler-shop and the centrifugal pump, and the other one was to be a stand-by, or we could use the two together ; I do not know why they are built in where they are ; there was no reason for it in my time ; two boilers pumped the dock and one was a stand by ; we used the whole three for ease and economy, but if it was necessary we could always do it with two.

Mr. Cruickshank : Did you ever tackle the engines for that nasty bump they have got every time they come over the centre ; the discs make all the bed-plate vibrate ; you fitted girders underneath before they could run their trial ?

Mr. Hoey : Yes.

Mr. Cruickshank : Did you ever find out where the fault was ?

Mr. Hoey : We reckoned they were out of truth at the centre ; the only way to find out how much would be by measuring ; I tell you now they were out of truth, off the square, out of line ; nothing was done to get them in line ; I could not tell you how much they were out of truth, but it was not much ; the knocking seemed to arise from the pumps themselves.

Mr. Cruickshank : But the whole of the main bearings of the engine seem to be knocking.

Mr. Hoey : That is only weakness in the job ; they did it far worse until we screwed them down to those girders ; the whole thing was on the move ; it would be a lot of trouble to line it off ; I do not think you could do much good if you found it out ; the job is inherently weak when it is worked at a high pressure, and we never could go to what they run at the trial trip ; I would never venture on it ; the thing would not be strong enough ; nobody went specially into the thing.

Mr. Cruickshank : I suppose you know that the boilers are set so that there is at least 30 per cent. of the fire grate of no use ?

Mr. Hoey : No, I did not know that ; I know the whole thing went to pieces under them, and we had to do it up underneath the best way we could, and we could not get bearing surface without taking away some of the heating surface ; all the boiler work under the furnaces broke to pieces ; it was done by the contractor ; then all cast-iron work you saw on the front of the boilers was put on by us ; the trial was done with two boilers, and it worked far faster than it has done ever since.

Mr. Cruickshank : It was going twenty-one revolutions the other day.

Mr. Portus : The trial was twenty-one revolutions I think.

Mr. Hoey : These boilers were a constant nuisance and a constant expense, and the older they get the worse they get.

*Mr. Fletcher and Mr. Broad.*—I might say that on Saturday afternoon I was told that Mr. Broad had told Mr. Fletcher that I had offered my services to you as a witness, and that I had been under examination the previous afternoon, and Mr. Fletcher went about the place saying that that "d—— b—— Hoey" had been and offered his services to the Commission and was examined yesterday ; I do not know whether you pledge your witnesses to secrecy with regard to their evidence, but if you have it has been to very little purpose.

Mr. Cruickshank : We have not pledged them to anything ; we are not ashamed of anything that takes place here ; if they like to go and talk about it they may ; we have nothing to conceal and do not want to conceal anything ; all that we want is to get at the actual state of affairs and get any suggestions which might help us to do this job as creditably as possible, that is all.

*Fire Prevention.*—When I was at the Dock I had first-class appliances for putting out fires ; I had hydrants put at regular intervals, and a hose that was under the control of the night watchman only ; in addition to that there were two sets of hose and directors and two portable pumps ; there were ample means of putting out fires, and fires have been put out there and nothing has been heard about it ; they can drop the suction of the portable pumps into the sea ; there is also a 4 in. main from Sydney, and there must be high pressure when it is only a few feet above the sea level ; the pressure was sufficient to feed the machine shop boilers without a pump ; the hose directors have been tried and they have thrown the water right over the building.

*Timber.*—There was very little building of wooden vessels in my time, except punts ; in cases of that kind we used to take sufficient time to get the stuff together ; we did not deal with that as an urgent matter ; if a Contractor failed to supply articles according to his contract for anything we got a cancelling order, and then the buyer went about the different yards and was allowed to buy whatever he found suitable at the risk of the Contractor.

*Mr. Buddle.*—I never had to deal with a better man than Buddle ; if I had known more about him he would have been where Pratt is now.

*Stores, Issue of.*—Perhaps you would like to know how the stores were issued in my time to the workmen ; the men would go to the Foremen and tell them what they wanted ; the Foreman would tell them to go to the stores to get what they wanted, and if what they wanted was not there they would get the nearest to it rather than waste time waiting for it ; if they wanted 2½-in. bolts and there were only 2½-in. bolts in the store they would take them ; the dockets were written out in the store and brought to me next morning, and I overhauled them and signed them, and the Foreman afterwards initialled them ; the Foreman never made the dockets out ; I am informed that they do not make them out even now ; we had two sets of books, one was brought to me and the other was in operation ; the reason for that was that some of them could not have written the dockets to save their lives, and one time I had a deal of trouble in sheltering Fletcher from the Engineer-in-Chief over that business ; it is more irregular now, where Foremen keep clerks to do it for them ; Fletcher has a clerk, I am told, and Gibson has a clerk ; the man goes to this clerk and tells him what he wants ; they have to wait till Mr. Gibson shows up to this clerk and tells him to write it, and the clerk goes to the store, not the man, for the article, and if the identical article is not in the store he comes back without it ; he does not take the next nearest, nor anything of the kind, and the whole of this action has to be gone through over again ; the men have told me that.

Mr. Portus : Is not it better to have a cheap man instead of a workman to do that ?

Mr. Hoey : The workman is waiting all the time ; in every other shop the Foreman carries a docket book in his pocket, and when a man wants a thing he writes down what he is to get and signs it or initials it.

*Supervision.*—Mr. Cruickshank : What is your opinion of having about thirty men in the blacksmiths' shop all on the same level with nobody to look after them ?

Mr. Hoey : There were not thirty in my time ; the wages also varied ; if I had thirty men in a blacksmiths' shop I would have a Foreman over them—of course, a working Foreman ; I would give him a little more money, of course ; I think the system of having, perhaps, two or three leading hands in the shop is a good one, but the system of having leading hands and not acknowledging them is very bad ; I would have a leading hand in the shop where the lathes are and where the fitting and turning goes on.

[Witness then retired.]

The Committee then proceeded to discuss their draft report, after which it was decided to give the officers referred to disparagingly in Mr. Hoey's evidence an opportunity of replying to his statements ; at 5 p.m. the Committee adjourned until 2 p.m. on Thursday, the 15th instant, at Cockatoo Island.

THURSDAY,

THURSDAY, 15 DECEMBER, 1898.

The Committee met at 2 p.m. at Circular Quay and proceeded in the launch "Little Nell" to Cockatoo Island, where a meeting was held in the Board-room at 2.30. p.m.

PRESENT :

MR. R. POLLOCK, Chairman.  
MR. A. B. PORTUS, | MR. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Secretary handed in the official papers of the Public Works Department respecting the dismissal of certain workmen from the Docks because of their relationship to the Foremen; memos. were received from the Foremen respecting their relatives who are now employed in the establishment. (See pp. 86 and 87.)

A general report by Mr. Broad regarding the whole of the works was received. (See pp. 88 and 89.)

The Committee then decided that Mr. Pratt and Mr. Fletcher should be called, that Mr. Hoey's statements regarding them should be read, and that they be allowed to make a statement in reply.

Mr. John Pratt, Dock Superintendent, was recalled. Mr. Hoey's evidence (pp. 79 to 82) was read to him. He then stated:—Mr Hoey has never called me in question in reference to this; this is the first I have heard of it; Mr. Hoey never complained or alleged that I was tyrannical to the men; I thought I got on very well with them; I am rather surprised to hear of this.

Mr. Cruickshank: He never spoke to you about it?

Mr. Pratt: Never; I always thought I was in his good graces; I was never so much surprised in my life as at hearing this; he recommended me for the appointment, and took a great deal of interest in me getting it; he has written to me to ask me to put some men on, some tenants of his, since he has been away, and I suppose this is the outcome of my not doing it; he told me in the letter that they were tenants of his; unfortunately I have not got the note; if I had known it was to be now stated I would certainly have kept it; I do not know that I have destroyed the letter; I will hunt it up and find it if I can; he has never found fault with me; it has always been the other way so far as I know; Mr. Hoey never troubled himself about any job that I was doing; he never could come and tell me how to do anything in my department; he never showed me how to do anything.

Mr. Cruickshank: How do you account for this?

Mr. Pratt: It is spite; I have a man working here now who is a neighbour and particular friend of his, and that may be the man who takes him the reports he says he gets weekly.

Mr. Cruickshank: Then, as a matter of fact, what he states here is not true?

Mr. Pratt: It is absolutely untrue; it is false from beginning to end; utterly false for a man to turn round and say that I am not capable of carrying on my work; who does it if I do not?

Chairman: What he means by "laying a ship down" is taking it off the scale drawings?

Mr. Pratt: Yes; I can take it off the scale drawings if I have the time; there is no comparison between the work to be done here now and that to be done when Mr. Hayes was here; there is twice the work here now as when Hayes was here; he only had one dock to run till just before he left; he used to lay down the ships, but I have not the time to do it; I can go into the loft to do it if I have the time, but there is so much work now that it would be impossible for me to be laying ships down and be personally looking after the docking and supervising work; I cannot be in the drawing-loft and looking after two docks as well; no one man could do it.

Mr. Cruickshank: What is your opinion of the condition of Cockatoo now as compared with when Mr. Hoey was here?

Mr. Pratt: I say it has improved wonderfully; it is now respectable for men to come and look at; I consider it was a disgrace to the Department it belonged to to allow it to go the way it did; he had the money voted to spend on plant, but did not provide proper plant; I came here in 1891; the work on the "Sobraon" was done in 1892; it was the first job of any importance I took in hand; the "Dawn" was not finished when I came; at that time I had about 250 men under me—shipwrights, painters, joiners, and so forth—and the two docks to run as well.

Mr. Cruickshank: You say the place is very much improved, and it is not like the same place; to whom do you consider the improvement is due?

Mr. Pratt: To Mr. Broad.

Mr. Cruickshank: That is to say, since Mr. Broad has been here he has carried out certain improvements which are creditable to him?

Mr. Pratt: Yes, a great number; when I came here they had a pit-saw, the same appliance that Noah had to build the Ark with, and as I came from a place where they had proper machinery I felt it very much; after much complaint on my part Hoey gave me what I have there now—a small circular saw—a thing you will find in any yard where firewood is cut, and is unsuited for my requirements; I have mentioned this to Mr. Broad, who has given me several pieces of good machinery, and he has promised to give me a better saw; I say that the whole of his statements are utterly false, and it is nothing but a bit of spite; I have never done anything to Mr. Hoey that I know of, and I am thoroughly surprised to think that he would make such a statement now.

Mr. George Fletcher, Foreman Boilermaker, was recalled. Mr. Hoey's evidence (pp. 79 to 82) was read to him. He then stated:—Well, as far as the boat's crew goes, I never took on men the whole time I have been here without letting Mr. Hoey know, and I never put a man off without letting Mr. Hoey know; when I discharged men I gave a list to Mr. Hoey, and he could please himself who



who he put his pen through ; when I wanted men here I used to tell Mr. Hoey I wanted men, and he said " Put them on " ; I put on men who knew the business ; there are men who cannot use the flogging hammer, and I put on those who could ; with regard to my boys, one was to go in Mr. Portus' office, and in the meantime Mr. Skinner died and his son was sent there in place of mine, and my boy was then apprenticed to the engineering for three (3) years, and afterwards serving five (5) to the boilermaking ; they all served their apprenticeship here at 6s. a week ; the younger one came here at 17 years of age, and he has turned out a very smart fellow at the theory part of the trade ; he went to the College and passed in mechanical drawing, and then I sent him Home, and he has only just landed here on Friday after being away for ten months ; I sent him Home to see what he could pick up ; he was the young chap that carried on the work here with Anderson while I was away on my leave ; those boys are doing platers' work and only getting riveters' pay, 14d. an hour ; I was frightened to ask for platers' pay for them ; Mr. Hoey gave the eldest one an increase of 15d. because of the way he made the boiler for the " Harrier " ; he started and finished it right out ; it was not for me to put them on ; if Mr. Hoey had said they were not to come on I could not put them on, and if he had ordered them to be put off I would have to put them off ; the system now is the same ; if men are to be put on, Mr. Broad says " Put them on " ; if men are to be put off, I put them on a list and Mr. Broad puts them off.

Mr. Cruickshank : Mr. Hoey says that when men had to be discharged you selected a certain class of men to go and kept on other men who were members of your boats' crews.

Mr. Fletcher : It does not make any difference to me ; if he knew that they were my boats' crews, why did not he put the pen through them ?

Mr. Cruickshank : You put the names before him ?

Mr. Fletcher : Yes.

Mr. Cruickshank : What Mr. Hoey says is that the names of the men who were members of your boats' crews were not put before him.

Mr. Fletcher : I can honestly swear that I never kept a man back from him yet, or Mr. Broad either ; I dare not do it ; I can quite understand this about Mr. Hoey, because I know there was a bit of ill-feeling between him and me when he went away ; I was blamed for a lot of things being said, and of course I never made use of the words that were put on to me.

[The Secretary read the evidence of Mr. Hoey regarding Mr. Fletcher on p. 82 from the words " I might say " as far as the words " examined yesterday. "]

Mr. Fletcher : That is not true ; it is false ; in fact, I did not know anything about Mr. Hoey coming here, and it was Crewes told me that he met Mr. Hoey on Saturday night and went from Erskine-street to the top of King-street with him, and he wanted to know who was on the Inquiry Board, and Crewes said Mr. Cruickshank, Mr. Portus, and Mr. Pollock, and he said, " Them ! " that was the first I heard of Mr. Hoey, and I think it was on Monday morning.

Chairman : What about the other statements about reading and writing ?

Mr. Fletcher : Well, I was not a very good scholar in reading and writing when I came here ; I can manage to do what wants to be done here now ; I can lay a ship down, or I can lay a boiler down or design a boiler ; I think that was the only failing Mr. Hoey could put on me so far as my abilities go.

Mr. Portus (reading from Mr. Hoey's evidence, p. 78) : " At the time that I left, and for some time before, the relations between Gibson and Fletcher were very strained ; and you will find that after Mr. Broad came he granted Fletcher a lathe and an engineer's drilling machine, and he has got an engineer, and that engineer has often got a helper. "

Mr. Fletcher : It was Mr. Broad recommended it ; it was like this : when we wanted any screw stays put in we would take them into the engineer's shop here, but we could not get them until it suited Gibson to turn them ; he had a lot to do, and very little appliances to do it with ; my job was wanted in a hurry as well as his ; I told Mr. Broad, and he said the best thing to do would be to get a little bit of a lathe and put it in the shop, and get an engineer, as an engineer would be required to look after the machinery in the shop ; so we got Clark, and he does all the tap stays for me and all the little bits of fixing up of the engines.

Mr. Cruickshank : What does he do when there are no taps to fix up ?

Mr. Fletcher : He has to keep all the tools in repair ; we can find plenty of work for him to do ; it was in that way also that I got McGregor, the blacksmith ; I went to Mr. Hoey, and told him I could not get my punches or shears dressed, and Gibson and I got to loggerheads about it ; he could only do those things when it suited him, and my men were standing all the time ; two or three punches would double up in a day, and the whole place was at a standstill ; Mr. Hoey told me to get a blacksmith.

Mr. Cruickshank : As regards the engineer and tools, as stated by Mr. Hoey, you have no hesitation in saying that the man and the tools are always fully employed ?

Mr. Fletcher : Yes.

Mr. Cruickshank : Mr. Hoey says he could not find out what you wanted them for.

Mr. Fletcher : There is a great deal more work done now than there was when Mr. Hoey was here ; we only had that small shop at the back there with nothing in it at all when he was here—a bit of a shop about 14 feet wide ; I do not drill my own tube-plates ; the machine is not out yet ; Mr. Gibson has got my machine ; he said he wanted it to drill double holes in links, and Mr. Broad spoke to me about it, and I said, " Very well, get me another one, and let him have it " ; there is no ill-feeling between Mr. Gibson and me that I know of.

Mr. Cruickshank : But Mr. Hoey says there was.

Mr. Fletcher : Well, then, it must have been him that made it ; when he started to fit this shop up was where the annoyance first came in ; there was an old engine that was in the " Pearl " when I was a boy running from Adolphus-street to Sydney ; they had it in the blacksmith's shop for fourteen years and condemned it ; when Mr. Hoey started this shop, he was going to fit it up on the far corner, and I objected ;

I said it was of no use to me; then they got an old boiler off the "Sobraon" and put it in the shop, and I asked Mr. Hoey if that one boiler was going to be used to drive the shop; I said it was no good to me—I wanted a relieving boiler; after that Mr. Hoey was retrenched; two boilers and two engines came from Darling Harbour cranes and were lying on the grass for about years; I recommended that the two boilers and one of the engines should be put in the boiler shop, and Mr. Gibson went up with Mr. Hoey and when he came back he said they were not worth putting in the place, and the engine was not worth fixing up, and there was a lot of brass work lost.

Mr. Cruickshank: That all goes to show that there was a bit of ill-feeling between you and him at the time. Is there any ill-feeling now?

Mr. Fletcher: No; that is all I know of; when Mr. Broad came here I took him to see them and when he saw them he grasped the thing at once and put them up for me; those are what we have got working at present.

Mr. Cruickshank: What is your opinion about the present condition of the works compared with what it was in Mr. Hoey's time?

Mr. Fletcher: We are doing very nearly as much work again; I do not see much difference in the system; I can see a great improvement in the place, but the work is done the same; what I mean by improvement about the place is making the place look something like decent; you could not walk on this place alongside the wall; the general condition of the place has very much improved; I take part of the credit to myself as far as my own shop goes for this improvement; there is very great improvement in the whole Island and I give Mr. Broad the credit for it; since Mr. Hoey left and Mr. Broad came here Mr. Broad has improved the place considerably.

Mr. Portus: Have you got a clerk?

Mr. Fletcher: No; I have got a man who keeps the docket book and time book, and when he is not doing that he is working with anybody else about the place; he is a labourer and gets labourer's wages; they have him in the office sometimes when they are making up the books; he goes to the stores for any light thing that is wanted if he can carry it; he has to work about the punching machine; of course he cannot go far away from the desk; if the men want any help to lift a plate or anything he has to give them a hand; those are his orders; he gets £2 2s., but deserves more.

*Lifting Appliances.*—When we want anything heavy shifted in the Boiler-shop we have to ring up a block and tackle; sometimes we do it with our own men or sometimes we get Godden's men; he is the foreman labourer; if there is anything heavy to lift I get him to put up the tackle, as I do not care to put up tackle myself; in Mr. Hoey's time I used to take the boilers out of the shop myself with my own men; the buckets were put on board the dredges with my men; Godden does it now; he does all the lifting and dragging about the place now; I think it is necessary to have a foreman labourer here; things that come out from England Godden fetches up; when Mr. Hoey was here our men had to do that; I have known us to be three or four days in bad weather wheeling about 12 or 14 tons of iron from that wharf where the Parramatta steamers stop; Mr. Hoey and I were very good friends up to the day he left.

Mr. Cruickshank: How do you account for this?

Mr. Fletcher: He has heard something very bad about me; when he was going away they got up a subscription list to get up a testimonial for him; I had a guinea to give towards it, but I did not know anything about it until the testimonial was presented down at the picnic ground, and he out with all this; I never knew from that day to this that that man had all this against me.

Mr. Cruickshank: You cannot account for this evidence he has given?

Mr. Fletcher: No; all I can say is that when he came to me at the A.S.N. Co.'s the first time I refused to take the job as a working foreman because I was a working foreman then; I told him I would come as foreman boilermaker; then he sent for me to his house and offered me a shilling more than Kelly had, and said that as the work increased my salary would increase; I accepted that; the statements he has made are not true.

Mr. Portus: Do you give any preference now to men who sail in your boats—do you keep them on?

Mr. Fletcher: Some of them are the oldest hands I have got in the shop; I never turn an old hand off here to keep a new hand on; if you look through the books you will find that the last men on are the first to go off; these men are the senior men.

Mr. Cruickshank: Supposing the new men were very much better men would you keep them on?

Mr. Fletcher: I would not like to turn the old hands off; I reckon I could not get better men in Sydney as boilermakers than those I have got; I think I have got the pick of the country as far as labour is concerned; I have been amongst the men now long enough to know their qualifications.

[The witness then retired.]

The Chairman and Mr. Cruickshank handed in letters received from Mr. W. H. Wilks, M.P., suggesting that Mr. Hoey should be called as a witness. (See p. 86.)

The Secretary reported that Mr. Hoey, in revising his evidence, had added two statements which he had not made when before the Committee. It was decided that these portions should be omitted from the report of the evidence.

Mr. Broad's report was then read by the Secretary. (See pp. 88 and 89.)

Mr. Portus handed in a statement showing how the crews of certain vessels belonging to the Dredge Service were employed while in Dock.

It was then decided by the Committee that no further evidence should be taken.

At 5 p.m. the Committee adjourned until Monday next at Mr. Cruickshank's office at 2 p.m.

Mr. Pollock, Chairman Commission, Cockatoo Island Works,—

Dear Sir,

Parliament House, N.S.W., 7 December, 1898.

I beg to submit to you the name of Mr. J. Hoey, Short-street, Balmain, ex-Superintendent of Fitzroy Dock. He is a gentleman that I feel convinced would be able to supply evidence of an inestimable nature re administration of said Works.

I would be pleased if you will summon this gentleman as a witness.

Yours truly,  
WILLIAM H. WILKS.

Mr. W. D. Cruickshank,—

Dear Sir,

Re Inquiry, Cockatoo Island.

Parliament House, 29 November, 1898.

Have you considered the advisability of calling Mr. Hoey, late Superintendent of Cockatoo Island Works? I may state that I am of the strong opinion that you would receive valuable evidence from this gentleman.

Trusting you will decide to summon Mr. Hoey,

Yours truly,  
WILLIAM H. WILKS.

Jas. Hoey, Esq., Short-street, Balmain,—

Sir,

8 December, 1898.

I have the honour to inform you that the Committee which has been appointed to inquire into the management of the Government Docking Establishment at Cockatoo Island will hold a meeting to-morrow, Friday, the 9th instant, at 2 p.m. at the office of Mr. W. D. Cruickshank, Engineer Surveyor to the Marine Board.

I am directed to invite you to attend to give any evidence which it may be within your power to furnish with respect to the subject matter of the inquiry.

I have, &c.,  
J. GARLICK,  
Secretary, Committee of Inquiry, Government Docks.

Engineer-in-Chief, Harbours and Rivers,—

Sir,

41 Short-street, Balmain, 25 October, 1893.

I regret that you were unable to be present to make the presentation to me, as it was under you that I first entered the Public Service in 1868. I would have been pleased that you should have taken part in what is, I presume, the last act as a retiring officer. I was also anxious to have a conversation with you on certain matters, which I will now commit to writing.

With regard to the relations between the foremen, I regret to say (especially during the last two years) that between Fletcher and Gibson is much strained. This caused me much trouble and anxiety to prevent the public interests suffering thereby. Mr. Gibson never interfered or made any remarks about any of the workmen not under his supervision. He simply attended to his own duties. Mr. Fletcher, on the other hand, judging from innumerable remarks made by him to me, showed himself to be possessed of an almost insane hatred to all engineers, either workmen, dredgemasters, draughtsmen, or civil engineers, and he has shown an intense dislike to Mr. Gibson. Of this feeling Mr. Gibson was well aware. If I had taken notice of Fletcher's remarks there would have been endless trouble.

About sixteen years ago, a vacancy having occurred in the position of foreman boilermaker, I, by the permission of Mr. Moriarty, appointed Mr. Fletcher to the position. Shortly after he started I was surprised to find that he was ignorant of the rudiments of education and has not since acquired them. You may easily understand what I have had to do for him during all these years, and that he could not have held a similar position in any private workshop, and but for me he must have remained an ordinary workman. I have been the best friend he ever had, and I had a right to expect that he would have made an exception in my case in his feeling about engineers, but I have learned on indubitable authority that he has expressed himself in these words, "We have got rid of that b—— Hoey at last," thus showing an extent of ingratitude that is almost incredible.

I may also add that I considered it my duty to inform Mr. Broad about Mr. Fletcher's hostility to engineers, and that it would require the greatest care on his part to prevent trouble and injury to the Service arising from this cause

I am, &c.,  
JAMES HOEY.

Minute Paper.

Subject: Fitzroy Dock Works, Cockatoo Island—Foremen employing Relatives under them.

The Engineer-in-Chief for Harbours and Rivers to The Under-Secretary for Public Works.

Department of Public Works, Harbours and Rivers Branch, Sydney, 15 November, 1893.

It has recently come under my notice that both the leading Foremen at the Fitzroy Dock Works have several near relatives employed on the works. This I consider is likely to lead to abuse, and is, in my opinion, for many reasons a very objectionable practice to allow. I therefore bring the matter under the Minister's notice, and suggest that I be empowered to issue orders that no foreman can be permitted to have more than, say, two relatives working on the Island.

The worst case is that of the Foreman Boilermaker, Fletcher. I have only just learned that this man's real name is Holmes, not Fletcher. He has working in the establishment—

	Wages on New Work.		Wages on Old Work.	
	s.	d.	s.	d.
George Fletcher, son .....	10	0	10	8
Louis Fletcher, son .....	9	4	10	0
Percy Fletcher, son .....	3	4	3	4
Alfred Holmes, snr., brother .....	10	0	10	8
Alfred Holmes, junr., nephew .....	9	4	10	0
James Wade, brother-in-law .....	9	8	10	4

I think this family party should be at once broken up in the manner I have suggested.

The Foreman Fitter, Gibson, also has six relatives or connections working in the shop, viz. :—

	s.	d.	
John Gibson, son, a boy ..	1	0	per day.
John Gibson, nephew, a boy .....	1	0	"
August Anderson, relative, labourer .....	7	0	"
William Marshall, ,, striker .....	7	0	"
Joseph Hankinson, ,, ,, .....	7	0	"
George Henry, father-in-law, labourer .....	7	0	"

While Fletcher's family are all drawing high wages, Gibson is somewhat more moderate, his son and nephew being only boy improvers drawing 1s. per day, the remainder strikers and labourers at 7s. per day. I am not sure how nearly three of the men are related or whether only distant connections, but still I hold that it is unwise to let the shop be made use of as a domicile for any foreman's connections.

C. W. DARLEY.

Submitted.—J.B., 21/11/93. I do not object to the sons being employed at the small wages named (3s. 4d. a day and 1s. a day), but both Fletcher and Gibson, being in positions of trusts, are censurable for taking so many of their relatives on without the knowledge of their superior officers. With the exception of the boys, I think it desirable that the others should leave the Service.—W.J.L., 27/11/93. Mr. Broad to notify the persons herein named, omitting those crossed

out

out in red, that their services will not be required after this week, and arrange for good men to take their places. See if young Boyd cannot be taken on as an improver.—C.W.D., 29/11/93. I find Marshall is so distantly connected that he cannot be called a connection or relative, so his name may be omitted from the list to be notified to go.—C.W.D., 29/11/93. The services of the persons notified have been dispensed with, but Hankinson and Henry have been taken on again for further consideration.—E.J.H.B., 4/12/93. George Boyd has started as an apprentice to boilermaking, and I have allowed him to begin with the second year's rate of pay, viz., 1s. 8d. per day, because of the experience he has gained as a shop boy.—E.J.H.B., 6/12/93. Approved, but obtain statement from Gibson as to whether there is any relationship or connection between him and these two men.—C.W.D., 6/12/93. Mr. Broad. Statement attached.—E.J.H.B., 11/12/93. Mr. Gibson's statement of 8th December, 1893, shows that George Henry is his (Gibson's) wife's step-father, and that George Hankinson is in no way related to him. The services of these men may be retained, as they clearly are not related to Gibson.—C.W.D., 13/12/93.

LIST OF FOREMEN'S RELATIVES AT PRESENT EMPLOYED AT FITZROY DOCK.

J. Gibson, Foreman Engineer.	s. d.
J. Gibson, son, improver .....	6 8
J. Gibson, nephew, fitter.....	8 8
G. Fletcher, Foreman Boilermaker.	
Geo. Fletcher, boilermaker, son.....	10 0
L. Fletcher " " .....	9 4
P. Fletcher " " .....	9 4
J. Pratt, Foreman Shipwright and Dock-master.	
Herbert Pratt, son, fitter's apprentice .....	3 4

From L. Burnett to J. Hamilton, Esq., Dredge, Newcastle,—

There are only two seamen on board "Ceres." One is employed cooking and cleaning, the other chipping and painting storeroom, anchors and davits, fidley and funnel, painting boat, and sundry jobs as required. L.B.  
Forwarded.—J.H.

J. Hamilton, Esq.,—

Sir,

S.S. "Galatea," Newcastle, 15 December.

To your request, the work performed by the crew of the tug "Galatea" while under repairs at Fitzroy Dock from September 30 to October 23—Seaman and boy chipping and painting. The boy Kinkstone away sick from the 5th of October. E. Knight joined in his place on the 14th. Master of the "Galatea," one week in "Dawn." Fireman and assistant fireman removing fire bars and bridges and rebuilding same, chipping and painting boiler, cleaning engine-room bilges, also cabin bilges. Engineer looking after men and boys. Engineer one week away in "Ceres."

Your obedient servants,

THOS. J. SHAKESHAFT.  
JOHN GARDE.

Forwarded.—J.H.

Mr. A. B. Portus, Superintendent of Dredges,—

Sir,

Tug "Ceres," Newcastle, 14 December, 1893.

The following is a statement of the work performed by the crew of the tug "Ceres" while under repairs at Fitzroy Dock during parts of the months of July and August, 1893:—

Engineer.—Supervising the repairs being done to the boilers and machinery.

Fireman.—The fireman was engaged cleaning out the furnaces and backs, chipping the shell of boiler and coal bunkers and giving them a coat of red lead paint. He also painted the stokehole and the lagging on the boiler, fitted the fire bars and built the bridges with the assistance of one of the men who was assisting to clean up in the engine room and stokehole after he had finished in the boiler.

Assistant Fireman.—The assistant fireman was engaged assisting the fitters, cleaning up in the engine room and in painting the engine room and the engines, also serving out what tools and stores that were required during the overhaul.

JOHN YOUNG,  
Engineer.

Forwarded. J.H.

J. Hamilton, Esq.,—

Newcastle, 14 December, 1893.

Work done in engine room and stokehole by fireman and assisting fireman during overhaul at Fitzroy Dock. One fireman looking after the cleaning of the boiler bilges, cleaning out backs, &c., &c., chipping and cleaning paint work, also painting and occasionally assisting fitters working in engine room, cleaning disconnected parts of machinery.

Assisting fireman looking after working tools, stores, &c., and keeping bright work clean.

F. IRWIN,

Engineer, tug "Orestes."

Forwarded—J.H.

COCKATOO DOCKING ESTABLISHMENT.

A STATEMENT SHEWING THE NUMBER OF MEN EMPLOYED FROM 1890 TO 1893.

		1890.	£ s. d.
1st to 8th January,	175 men ..	.....	388 0 2
6th to 19th March,	213 " ..	.....	851 11 3
12th to 26th June,	280 " ..	.....	1,133 10 3
4th to 17th September,	323 " ..	.....	1,383 19 9
27th November to 10th December,	251 " ..	.....	890 18 4
		1891.	
19th February to 4th March,	196 men ..	.....	873 8 9
23rd May to 10th June,	208 " ..	.....	824 16 5
3rd to 16th September,	340 " Sobraon, 72 men ..	.....	1,595 6 0
10th November to 23rd December,	416 " " 103 " ..	.....	1,690 4 1
		1892.	
1st to 12th January,	395 men ..	.....	1,185 11 1
25th February to 9th March,	551 " Sobraon, 167 men ..	.....	1,691 4 0
2nd to 15th June,	543 " " 183 " ..	.....	.....
8th to 21st September,	374 " ..	.....	.....
15th to 28th December,	270 " ..	.....	.....
		1893.	
9th to 22nd March,	261 men ..	.....	.....
15th to 28th June,	245 " ..	.....	.....
22nd September to 5th October,	388 " ..	.....	.....
15th to 28th September,	268 " ..	.....	.....
		1893.	
8th June,	376 men ..	.....	1,569 9 6
20th July,	393 " ..	.....	1,735 19 10
7th December	397 " ..	.....	1,837 14 7

MEMO.

## MEMO.

Goodlet and Smith, Ltd., to J. Garlick, Esq., Secretary, Committee of Inquiry re Government Docks.

Sir,

493, George-street, Sydney, 2 December, 1898.

With reference to a question asked me on Wednesday by the Commissioners as to whether there was any special difficulty in supplying 4/14 18 x 3 spotted-gum ordered for use at the Fitzroy Dock, and said to be undelivered, and to which I answered that there should be no great difficulty, on looking into the matter I find that these were supplied on 2nd August last.

I have, &c.,

C. W. McFARLANE.

REPORT AS ASKED FOR BY THE BOARD OF INQUIRY NOW SITTING AT FITZROY DOCKYARD.

*Fitzroy Docks and Dockyard.*

THE work carried out at this Establishment consists principally of docking ships of war, vessels of the mercantile marine, tug boats and Dredge Service plant of N.S.W. The workshops in connection with the Docks are scarcely equivalent to the requirements of the Docks—that is to say, in a case of great emergency, necessitating the rapid use of these Docks and effecting all necessary repairs, &c., it would be found that our workshop capabilities are incompatible with the Docks' requirements. I do not anticipate there is any reason at present to suppose that such emergency cases will arise; but with the growing requirements of this Colony, it is only reasonable that its greatest workshop should expand adequately to its requirements, as these workshops are essentially shops for effecting repairs to our own plant without any pretensions to do any new work whatever, or to in any way interfere with private enterprise. Nevertheless the fact must not be lost sight of that these shops must increase, and all such suitable appliances and machinery placed therein as experience has shown to be necessary, so that the Colony can do its own work if some unforeseen circumstance should arise which necessitated it; and holding these views I ask from time to time to be allowed to extend these workshops, and to have some new and modern machinery.

*Extension of Workshops.*—I have had a plan prepared showing, tinted in red, the proposed extension of workshops in which I propose to erect a new smith's shop, and place therein some new machinery and furnaces for working up our old scrap wrought-iron, &c.; and the present smith's shop to be converted into a machine shop to receive the new machines asked for, and a new pattern-shop to enable the iron foundry to be completed, with suitable appliances erected therein for carrying out work economically. It is also proposed to bring the carpenter's shop on the other side of the Fitzroy Dock (in the distant future) as shown on the plan submitted, and to erect on the site of the present carpenter's shop a new boilermaker's shop, as it would be in convenient proximity to the Docks, and repairs would be more expeditiously carried out, and a suitable slip to be laid down by the side of it, and a 50-ton shearlegs erected on the wharf and connected with the workshops by railroads.

*Tools under order for Engineer's Shop.*

Tools under order are as follows:

- (1) Gap, self-acting, sliding, surfacing, and screw-cutting lathe, 18 in. centres, and length of bed between centres 26 ft., with pillar and slide rest for work of large diameter; and one jaw-chuck 6 ft. diameter.
- (2) One improved screw-cutting gap lathe, 10 in. centres, length of bed 15 ft., extra strong required.
- (3) One patent turret lathe for brass finishing 8 in. centres.
- (4) One improved six-spindle nut-tapping machine; taps and master taps complete from  $\frac{1}{2}$  in. to 1 in.
- (5) One improved small slotting machine, 9 in. stroke.
- (6) One improved Thorne's patent portable drilling machine.

*Tools in addition to the above are required for the Engineer's Shop.*

- (7) One gap sliding, surfacing, and screw-cutting lathe with shifting bed, 12 in. centres and 15 ft. length of bed, with treble gearing and pillar rest, and one jaw-chuck 4 ft. 5 in. diameter.
- (8) One improved screw-cutting gap lathe, 12 in. centres, bed 20 ft. long, capable of taking 15 ft. between centres when gap is open.
- (9) One improved screw-cutting lathe, 10 in. centres, bed 15 ft. long, self-acting and surfacing gear.
- (10) One improved bolt-screw and nut-tapping machine, to screw from  $\frac{1}{2}$  in. to  $2\frac{1}{2}$  in. in one cut only; taps and master taps complete; and oil pump for delivering oil on to the bolts while threads are being cut.
- (11) One screwing machine, for screwing iron pipes, to screw 1 in.,  $1\frac{1}{2}$  in.,  $1\frac{1}{2}$  in., 2 in.,  $2\frac{1}{2}$  in.,  $2\frac{1}{2}$  in., 3 in.,  $3\frac{1}{2}$  in.,  $3\frac{1}{2}$  in., also 4 in., with ten pairs of adjustable discs, and an extra pair of wheels complete, for either hand or steam power.

*Tools required for new Blacksmith's Shop.*

- (1) One improved silent fan, Lloyd's system, suitable for thirty fires.
- (2) One steam hammer, Rigby's, 10 cwt., without self-acting gear.
- (3) One steam hammer, 7 cwt., without self-acting gear.

*Tools required for Coppersmith's Shop.*

- (1) One burring machine or jenny.
- (2) One turn-up wiring machine.
- (3) One beading or swageing machine for tin, with one pair of steel rollers.
- (4) One grooving machine, 38 in. long.
- (5) One planing machine.
- (6) One bottom-closing machine.
- (7) One hydraulic bending machine, for bending copper pipes to 6 in. diameter with return stroke.

*Moulding Shop.*

One loam mill for moulding shop, and one 2-ton jib crane.

*Tools required for Boilermaker's Shop.*

- (1) One set of rolls, 16 ft. long, for  $\frac{3}{4}$  in. plate.
- (2) One beam or angle iron bending and straightening machine.
- (3) One plate-straightening machine, flatten up to  $\frac{1}{4}$  in. plates.
- (4) One portable hydraulic riveting machine, Bear type, 21 in.
- (5) Horizontal boiler shell drilling and tapping machine.
- (6) Plate edge planing machine.
- (7) New plate blocks for furnace.
- (8) Extension of boiler-shop for the above machinery.

*Tools required for Patternmaker's Shop.*

- (1) One of Fay's No. 5 20-in. swing patternmaker's lathes, iron bed, pair of centres, three rests and two sockets, wood cone and countershaft.
- (2) One of Fay's No. 2 standard ripping saws, with elevating arbor, rip, cross-cutting mitre gauges, iron table and two saws, 22 in. diameter.
- (3) One of Fay's No. 2 patent jointing and hand planing machines, 16 in. cylinders and countershaft.
- (4) One of Fay's No. 2 Centennial surfacing machines, to plane one side 20 in. x 6 in., one pair 20 in. knives and countershaft.
- (5) One of Fay's patent automatic band-saw setting machines.

*Tools*

*Tools required for the Joiner's and Shipwright's Shop.*

- One of Robinson's latest four-headed planing machines, to take 24 in. in width and not less than 6 in. in depth.  
 (2) One of Robinson's latest self-acting circular saw benches, to take a 36 in. saw.  
 (3) One of Robinson's breaking-down machines, to take not less than a 48 in. log.  
 (4) One emery saw sharpening machine.  
 (5) One band-saw sharpening machine.  
 (6) One grinding stone for planing machine knives.  
 (7) One traveller for lifting logs for breaking down sawing machine.

In addition to the above machines required in the different shops, suitable lifting appliances must also be provided in each shop that the work may be carried out with despatch and economy. I have not given a list of those machines already in use here in this report, because they are mentioned in the printed scale of Dock Dues.

*Fire Engine.*

In the event of a fire taking place here I think some quick and efficient means of extinguishing it should be provided, such as a steam fire engine, or an oil engine, because the water service we have laid throughout the place would be inadequate if a large fire were to occur; and if it should happen in the night, perhaps a water pump driven by an oil engine would be the quickest to get into action.

*Charges for the use of Machines and Appliances.*

It will be seen in the charges for the use of machines and appliances that they appear excessive. I recommended them because I wanted them to be prohibitive, for the following reasons: I found, when no charges whatever were made, applications came from all quarters for the loan of our tools, and these charges have had a beneficial effect; but in cases of great urgency, when the use of our appliances is necessary, I try to soften these charges down to that which is reasonable and fair for private enterprise; but so far as the Public Works are concerned, no charge whatever has been made for the use of our machinery by any branch of the Public Service that we have been doing work for. A short time since I computed a scale of charges for machinery, which I forwarded to the Head Office, showing it to be 7 per cent. on the total cost of work done. Such charges in my opinion should be made on all the accounts we render.

*Insufficient Wharfage Accommodation.*

Experience has shown, through want of more wharves, we are obliged to put vessels side by side, which adds to the cost of repairs through having to get at them with difficulty. If some means could be devised which could give us more accommodation in this direction it would considerably facilitate repairs which have to be effected, and also to remove the coal wharf to more convenient and commodious positions.

*New Pumping Machinery for Docks.*

It is well to bear in mind the fact that our present pumps are corroding away fast, and before long the necessity for new pumping machinery will have to be considered; and in my opinion every consideration should be given to that system which would offer the least difficulties in effecting repairs or renewals. Our present pumps present such difficulties in this direction that I would recommend the centrifugal system for consideration.

It must not be understood that what is asked for now is imperatively necessary to be all at once supplied, but that it may be realised in say five years by gradual and judicious development, because workshops will have to be extended in the first place to receive the tools asked for.

*Railway throughout the Works and Docks.*

The railway throughout this place, as contemplated by the Engineer-in-Chief, should in my opinion be proceeded with as speedily as possible, as it will considerably lessen the cost of moving about heavy pieces of machinery from one shop to another and to its final destination.

*Removal of Rock.*

We are proceeding very fairly with this work, and I may say that sufficient has been cleared, and a quantity of stone already dressed, to enable those workshop extensions asked for to be gone on with at once.

*Ordering Stores.*

If some better means could be introduced which would enable us to be supplied more readily with what we require, such work requiring it could be more rapidly expedited, as we practically keep no stock in our store, and are entirely dependent on the contractors for our materials. We must either keep a larger stock, or some quicker means of getting what is required will have to be introduced. Might I venture to suggest that I be allowed to get out orders in triplicate, and send one to the contractor, another to the Head Office, and retain the other in this office. It would certainly expedite the work, and would not in any way lessen the controlling functions of the Head Office over this place.

*Wages.*

I believe a higher rate of wages prevails here than in outside shops. Take joiners: The highest rate is 9s. per day; we give 10s. Take labourers: Our lowest rate is 7s., and the unfairness to the skilful labourer is that he only gets the same as the absolutely unskilled, and I may say comparatively useless, one. I therefore think that these should start at a lower rate—say 6s. a day.

*Accident Pay.*

In the event of an accident happening here, it is usual for the Government to allow pay to the sufferers in the following manner:—For the first month, full pay; the second month, two-third's pay; and the third month, one-third pay. I very much regret to say workmen frequently, for the most trivial accident, run away for a doctor's certificate, upon which they claim accident pay. If the same thing occurred to them in a private firm, where no such allowance is given, they would never think of knocking off for it. I would, therefore, recommend for consideration the abolition of these concessions. Should it not be deemed advisable to do so, might I ask that a departmental doctor shall, in all cases of accidents, be consulted, and pay granted only on his certificate; because I find it difficult myself to discriminate between the real and apparent accidents, so as to enable me to make satisfactory recommendations.

EDWD. J. H. BROAD,  
 General Superintendent, Fitzroy Dock.

15 December, 1898.

MONDAY, 19 DECEMBER, 1898.

The Committee met at Mr. Cruickshank's Office at 2 p.m.

PRESENT :—

MR. R. POLLOCK, Chairman.  
MR. A. B. PORTUS. | MR. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Secretary reported that Mr. Fletcher, in revising his evidence, had inserted a statement which he had not given when before the Committee. It was decided that this be omitted from the notes of evidence.

Mr. Cruickshank reported the receipt of a letter from Mr. Hoey, stating that his evidence was given for the purposes of the Committee only, and asking that it should not be made the subject of conversation, especially to the officials at Fitzroy Dock. The Secretary was directed to reply that as Mr. Hoey had made certain charges against the Foreman, the Committee had thought it only fair and just to give them an opportunity of replying.

The Committee then discussed the evidence and considered the draft of their report.

At 5 p.m. the meeting was adjourned until 2 p.m. on Wednesday next.

WEDNESDAY, 21 DECEMBER, 1898.

The Committee met at 2 p.m. at the Office of Mr. Cruickshank.

PRESENT :—

MR. R. POLLOCK, Chairman.  
MR. A. B. PORTUS. | MR. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Committee then considered their draft report.

At 5 p.m. the meeting was adjourned until 2 p.m. on Wednesday, the 28th instant.

WEDNESDAY, 28 DECEMBER, 1898.

PRESENT :—

MR. R. POLLOCK, Chairman.  
MR. A. B. PORTUS. | MR. W. D. CRUICKSHANK.

The minutes of the previous meeting were read and confirmed.

The Committee then further considered their draft report, after which they adjourned outside to inspect the Fire-extinguishing Appliances. The Watchman was asked to put a hose on the hydrant outside the Manager's office. At the end of five minutes all was ready (one length of about 50 ft.) to be screwed on to the hydrant, which was in its place; but the former would not fit, and a fresh length had to be obtained, adjusted, and fixed, when the water was turned on ten minutes from starting time. The jet was found to fall rather short of the strength necessary for the proper command of the Boiler-shop, to the roof of which it was directed.

At 5 p.m. the Committee adjourned to a date to be fixed.

WEDNESDAY, 4 JANUARY, 1899.

The Committee met at 2 p.m. at Circular Quay, and proceeded by the "Ithena" to Cockatoo Island.

PRESENT :—

MR. W. D. CRUICKSHANK.  
MR. A. B. PORTUS.

The Committee inspected the plan of the proposed extension of the Workshops in company with Mr. Broad, the Manager.

They then continued the consideration of their report.

At 5 p.m. the Committee adjourned.

## RETURN OF MACHINERY AT FITZROY DOCKYARD, COCKATOO ISLAND.

*Machine Shop.*

No.	Description of Machine.	Size.		Centres.
		ft.	in.	in.
1	Large Gap Lathe, S.S.S.	22	0	30
1	" "	15	0	19 $\frac{3}{4}$
1	" "	20	0	12
1	No Gap Lathe, S.S.S.	25	0	12
1	" "	15	0	10
1	" "	10	0	8 $\frac{3}{4}$
1	" "	10	0	8 $\frac{1}{2}$
1	" "	10	0	8 $\frac{1}{2}$
1	" "	10	0	7 $\frac{1}{2}$
1	" "	6	0	6 $\frac{1}{2}$
		Radius.	Height to admit.	Width.
1	Radial Drilling Machine	5 0	4 0	5 4
1	" "	4 2	2 0	4 0
1	Vertical Drilling Machine		2 6	1 4
1	" "		2 6	1 4
1	" "		3 0	4 0
1	" "		4 6	2 6
		Bed.		
1	Large Planing Machine	ft. in.	ft. in.	
1	" "	20 0	x 7 6	
1	" "	11 6	x 4 0	
1	" "	11 0	x 2 5	
1	Small Planing Machine	4 0	x 1 9	
		Stroke.	To admit.	
1	Large Slotting Machine	ft. in.	ft. in.	
1	" "	2 0	8 0	
		1 3	3 3	
		Stroke.	Tables.	Width.
1	Shaping Machine	ft. in.	ft. in.	ft. in.
1	" "	1 4	2	6 0
1	" "	1 0 $\frac{1}{2}$	2	5 3
1	" "	0 9 $\frac{1}{2}$	1	4 0
		Centres.		Table.
1	Multiple Boring Machine, 2 Heads	ft. in.	ft. in.	ft. in.
2	Milling Machines	1 0 to 6 6	1-8	0 x 5
		2 $\frac{1}{2}$ x 7 $\frac{1}{2}$		
		Size.		
2	Bolt-screwing Machine	3 in. to 1 $\frac{1}{2}$ in.		
2	Emery Grinding Machines.			

*Pattern Shop.*

	Gap.	Centres.	Length.
	ft. in.	ft. in.	ft. in.
1	Band Saw	2 0	.....
1	Wood-turning Lathe	.....	0 6
1	Wood-turning Wheel Lathe	.....	3 6
1	Wood-trimmer.	.....	.....

*Blacksmiths' Shop.*

	Size.
	in. in.
1	Nut and Bolt Making Machine
1	Punching and Shearing Machine
1	Large Steam Hammer.
1	Medium Steam Hammer.

*Saw-mill Machinery.*

	Size.	Gap.
	in.	ft.
1	Circular Saw	30
1	Band Saw	3
1	General Joiner.	
1	Wood-planing Machine.	
1	Boring and Mortising Machine.	

*Boiler Shop.*

	Where in Use.
	Loan Tool Store.
1	Lathe—centres, 6 $\frac{1}{2}$ in. ; bed, 6 ft.
1	Drilling Machine
1	Hydraulic Riveter
1	Small Steam Hammer
1	Large Punch and Shearing Machine, steam
1	" " " " belt
1	" " " " " "
1	Pair of Plate-bending Rollers, length, 9 ft.
1	" " " " " " 13 ft. 6 in.
1	Emery Grinding Machine
1	Countersink Drilling Machine

## COPY OF OFFICIAL PAPERS RESPECTING THE APPOINTMENT AND SALARY OF MR. BROAD AS GENERAL SUPERINTENDENT FITZROY DOCK.

*Minute Paper.*

*Subject:*—Superintendent, Fitzroy Dock Works, Cockatoo Island.

Engineer-in-Chief, Harbours and Rivers, to The Under Secretary for Public Works.

Department of Public Works, Harbours and Rivers Branch, Sydney, 21 July, 1893.

WHEN reporting on the retrenchment in the staff under my direction last week, I referred to a proposed change in the management at Fitzroy Dock. I, however, made no recommendation then until I was in a position to recommend a good successor to Mr. Hoey, who, I proposed, should be retired on a pension. In justice to Mr. Hoey I must state that I have no fault to find with his management. He is an old and faithful servant, and has carried on all work entrusted to his care in a zealous and most efficient manner; but as it is imperative that our present staff should be reduced, the only way I can see for doing so with the least amount of hardship is to let those retire who by age and service are entitled to a pension, and promote to their places other officers from the staff who would otherwise have to be retired without any pension. This is, however, on the supposition that there are other officers fitted for the vacant position.

In this case care must be taken to secure a man of experience in general engineering practice, and one who can manage a body of men with tact.

From



From my own knowledge, as well as from inquiries made, I believe that the officer best fitted to take this position is Mr. E. J. H. Broad, now a mechanical draftsman in this branch. Mr. Broad has been a little over thirteen years in the Service. The first portion of his time he was in the Railway and Tramway Department in the position of Foreman of Workshops for some time, and the officers of the Department speak highly of his capabilities. He has had long practical experience in England as manager. Mr. Broad's age is about 53.

I therefore recommend that Mr. Hoey be retired on a pension after the usual leave of absence, and that Mr. Broad be appointed to succeed him at a salary of £400 per annum.

C. W. DARLEY.

Submitted.—J.B., 21/7/93. Approved; but Broad to be put in temporary charge only at his present salary until such time as I can further consider who should be permanently appointed.—W.J.L., 21/7/93.

*Minute Paper.*

*Subject* :—Recommending permanent appointment of Mr. E. J. H. Broad as General Superintendent of Fitzroy Dock.

The Engineer in Chief for Harbours and Rivers to The Under Secretary for Public Works.

Department of Public Works, Harbours and Rivers Branch, Sydney, 4 April, 1894.

Now that the Appropriation Act is passed, and Mr. Hoey's leave has expired, I respectfully suggest that the matter of appointing a permanent officer as General Superintendent of the Dock Establishment be also reconsidered, and I see no reason whatever to depart from the recommendation I made on the 31st July last (*vide* M.P., No. 93-6,696), wherein I nominated Mr. E. J. H. Broad for this position. Since Mr. Broad assumed temporary charge of this important establishment, he has shown himself in every way possible well qualified to discharge the onerous duties annexed to the appointment, and I therefore have pleasure in again submitting that he be permanently appointed General Superintendent, at the salary voted on the Estimates for this year, viz., £350 per annum. I hope, however, that the Minister will be able to grant Mr. Broad an increase on the above salary at an early date, as the sum voted is very little more than he was receiving as a draftsman, when he had very little responsibility; it is also less than some dredge-master's draw, yet his position is far more onerous and responsible than that of any dredge-master.

As this position has always carried an allowance in lieu of quarters, I would ask the Minister to approve of Mr. Broad receiving the usual allowance of £50 per annum, as there are no quarters for him provided on the Island.

C. W. DARLEY.

List for decision—J.B., 2/4/94. Submitted to Minister, Order No. 1,514, and marked by him as under :—“He may be appointed at £350, but the allowance to stand over.”—J.B. I presume Executive authority will now be sought for Mr. Broad's appointment.—C.W.D., 20/4/94.

The Under Secretary, Public Works. P.S.—In view of the Civil Service Board's request of the 16th instant, I beg to point out that no other officer in the Department has any claim for the vacancy as General Superintendent of the Docks. Mr. Broad has fourteen years' service, and is at present in receipt of a salary of £312 10s. per year on the temporary staff. It is greatly to be regretted the voted salary for General Superintendent is such an inadequate one, viz., £350 per annum, especially seeing that the Dockmaster receives £290 and quarters, fuel, and light, valued at quite £80 per annum, equal to £370, and the Foreman Boilermaker and Foreman Fitter respectively are paid a yearly increment of £308. I respectfully submit that the anomalous position in which the General Superintendent is placed is most apparent, more particularly when it will be observed that one of the Foremen receives higher pay than Mr. Broad, and the other two are nearly as well remunerated.—C.W.D., 27/4/94.

The Under-Secretary, B.C.—Separate paper recommending the appointment of Mr. Broad sent to Civil Service Board (94/1,491).—D.C.McL., 7/5/94.

*Minute Paper.*

*Subject* :—Recommending permanent appointment of Mr. E. J. H. Broad as General Superintendent of Fitzroy Dock.

The Engineer-in-Chief for Harbours and Rivers to The Under Secretary for Public Works.

Department of Public Works, Harbours and Rivers Branch, 94/4091, Sydney, 4 May, 1894.

Now that the Appropriation Act is passed, and Mr. Hoey's leave has expired, I respectfully suggest that the matter of appointing a permanent officer as General Superintendent of the Dock Establishment be also reconsidered, and I see no reason whatever to depart from the recommendation I made on the 21st July last (*vide* M. P. No. 93/6,696), wherein I nominated Mr. E. J. H. Broad for this position. Since Mr. Broad assumed temporary charge of this important establishment he has shown himself in every possible way well qualified to discharge the onerous duties annexed to the appointment, and I therefore have pleasure in again submitting that he be permanently appointed General Superintendent, at the salary voted on the Estimates for this year, viz., £350 per annum.

In view of the Civil Service Board's request of the 16th ultimo, I beg to point out that no other officer in the Department has any claim for the vacancy as General Superintendent of the Docks.

Mr. Broad has fourteen years' service, and is at present in receipt of a salary of £312 10s. per year on the temporary staff.

C. W. DARLEY.

Recommended.—J.B., 7/5/94. Secretary, Civil Service Board.—B.C. The Civil Service Board concur, but desire to point out that, for purposes of superannuation or retiring allowance, Mr. Broad can only be allowed to count his service from the date of his permanent appointment.—J. H. STORREY, Chairman. The Under Secretary for Public Works.—B.C., 9/5/94. From what date is it proposed to appoint him?—J.B., 14/5/94.

Mr. Darley. From the 1st January, 1894.—C.W.D., 15/5/94.

The U.S., P.W. See approval of Minister on 94/3,162. Prepare Executive Minute.—J.B., 15/4/94.

Engineer-in-Chief,—

Sir,

Fitzroy Dock, 31 May, 1894.

I most respectfully desire to draw your attention to the low salary I am receiving, viz., £325 per annum, and that my predecessor, Mr. Hoey, received £490, with house allowance, £50—in all £540 per annum.

The duties and responsibilities have in no way diminished, and I believe I have given every satisfaction in the performance of those duties.

I therefore hope you will take this into your favourable consideration, and remunerate me consistently with my abilities and experience.

Yours, &c.,

EDWD. J. H. BROAD.

I have already on more than one occasion urged that Mr. Broad be paid a salary commensurate with the duties and responsibilities of his office. I consider he should be allowed an equal rate to his predecessor.—C. W. DARLEY, 1/6/94. The Under Secretary Public Works, B.C. Not dealt with when Minister left office; what further is to be done?—13/ /94. The Minister has dealt with this, as Mr. Darley is aware.—J.B., 23/8/94. Seen.—C.W.D.—20/8/94. Put by.

*Minute Paper.*

*Subject* :—Dock Establishments, Port Jackson. Recommending payment of increased rate of salary to the General Superintendent of the Docks, as passed by Parliament.

The Engineer-in-Chief for Harbours and Rivers to The Under Secretary for Public Works.

Department of Public Works, Harbours and Rivers Branch, Sydney, 23 January, 1893.

PARLIAMENT has voted the sum of £2,469 on the Estimates-in-Chief for the year 1895—for the period from the 1st January to the 30th June—for the Dock Establishments

Included in this sum is an amount of £200, half-year's salary for the General Superintendent, and I beg to recommend that immediate steps be taken to advise the Treasury of this increased rate of salary to be paid to Mr. E. J. H. Broad as from the 1st instant.

C. W. DARLEY.

Salary voted 1894 ... .. £350.

1895 ... .. £400.

See Minister's approval on 95/951.—A.F.T., 29/1/95. Put by.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

ABORIGINES.

(REPORT OF BOARD FOR 1898.)

Presented to Parliament by Command.

Printed under No. 1 Report from Printing Committee, 3 August, 1899.

The Aborigines Protection Board to The Principal Under Secretary.

Office of Board for Protection of Aborigines,

Sydney, 18 April, 1899.

Sir,

In accordance with the established practice, we have the honor to submit, for the Chief Secretary's information, the following Report regarding the work undertaken by us during the year 1898, together with information as to the number, location, and present condition of the Aborigines throughout the Colony, and the means adopted by us for their relief, so far as the funds placed at our disposal would admit.

We regret to have to record the death, on the 23rd August last, of Mr. James Hill, who was appointed to a seat on the Board on the 20th September, 1895. Mr. Hill was a regular attendant at the Board's weekly meetings, and always evinced an interest in matters concerning the welfare of the Aborigines.

Mr. William Charles Hill accepted a seat on the Board to fill the vacancy thus occasioned, his appointment dating from the 16th September last.

The statistics of the Aboriginal population of the Colony (*see Appendix A*), compiled from information collected by the police, on the 15th October last, show a total of 3,230 full-bloods and 3,661 half-castes—6,891 in all.

These figures exhibit, as compared with the numbers for the previous year, a total decrease of 194—192 full-bloods and 2 half-castes.

The deaths amongst the full-bloods exceeded the births by 67, the numbers being 144 and 77 respectively. On the other hand, there were 108 more births than deaths amongst the half-castes, the former reaching a total of 180, and the latter 52. These figures would, however, show a net increase in the whole Aboriginal population instead of a decrease. The deficiency unaccounted for is probably due to the difficulty experienced in taking a correct census, owing to the migratory habits of the Aborigines, and by the border tribes crossing into the other colonies.

The number of full-bloods has declined from 6,540 in 1882, the year in which the first of such census returns was specially taken, to 3,230 at the present time, an average annual decrease of 206. On the other hand, the half-castes have increased from 2,379 to 3,661, an average annual increase of 80.

A total sum of £16,591 1s. 11d. was expended by the Government on behalf of the Aborigines during the year (*see Appendix C*). This includes an expenditure of £11,801 4s. 5d. by the Board, £876 14s. 7d. by the Chief Medical Officer, £936 16s. 2d. by the Minister of Public Instruction, £83 6s. 9d. by the Chief Secretary, and £2,893 from the Vote for Stores.

The expenditure by the Board is given in detail (*see Appendix D*). A sum of £9,565 14s. 8d. was expended in the purchase of food, clothing, medical comforts, boats and gear, fencing wire, farming implements, seed, material for the erection and improvement of dwellings, &c.; £222 14s. 1d. for the fares of Aborigines travelling on the railway lines; and £2,012 15s. 8d., in liquidating claims incurred specially in connection with the Cumeroogunga (Murray), Warangesda (Murrumbidgee), and Brewarrina (Barwon), Aboriginal Stations.

At the following places the Aborigines have been assisted to erect comfortable dwellings for themselves:—Burraborang, Cowra, Forster, Goonal, Gulargambone, Conargo, Singleton, Uralla, Walcha, Wellington, and Wilcannia. The practice followed has been to supply tools, nails, and roofing iron, the Aborigines themselves procuring the necessary timber and providing the labour.

Six additional reserves, as under, aggregating an area of 869 acres, have been set apart during the year for the use of Aborigines. The area of the reserve at Runnymede has also been increased from 100 to 115 acres :—

Dubbo	...	...	...	...	...	...	19 acres.
Sackville Reach	...	...	...	...	...	...	40 "
Colimo	...	...	...	...	...	...	245 "
Mungindi	...	...	...	...	...	...	100 "
Kunopia	...	...	...	...	...	...	100 "
Euroka Creek	...	...	...	...	...	...	365 "

The reserve of 34 acres on the Minnamurra River, being subject to inundation by flood, and therefore of no use for the purpose for which it was set apart, has been revoked. The area of the reserve at Narrabri has also been reduced from 5,200 to 900 acres.

On the 31st December last there were 118 reserves for Aborigines in different parts of the Colony, with a total area of 23,480 acres.

In numerous instances the land is successfully cultivated by the Aborigines, and their efforts have been encouraged by the Board as far as practicable by the supply of implements, seed, and other assistance. Several of the reserves have been enclosed with good substantial fences, the Board supplying the wire, and the Aborigines providing the posts and carrying out the work.

The total number of Aboriginal children now receiving instruction is 612—595 at public schools and schools established specially for them, and 17 privately.

The Board continue to offer every inducement to the Aborigines to send their children to school, chiefly by providing decent clothing for all those who regularly attend, and granting them a weekly ration of food. It is to be much regretted that at Gulargambone and Wollar, owing to objections raised by parents of European children, the Minister of Public Instruction has thought proper to direct that the attendance of Aboriginal children at the local public schools should be discontinued; notwithstanding the fact that the children were habitually clean, decently clad, and conducted themselves with propriety both in and out of school. The difficulty at Gulargambone has since been overcome by a number of local residents undertaking to erect a special school building on the reserve at that place, and the Department of Public Instruction agreeing to provide a teacher.

The school at Barrington, which was closed in 1897, has been reopened. The school at Wallaga Lake, closed in 1895, is also once more in operation.

Visits of inspection are periodically made by officers of the Department of Public Instruction to the schools established especially for the instruction of Aboriginal children at Brewarrina, Cumeroo-gunga, Forster, Googeedee (Brungle), Grafton, Mulyan (Cowra), Rolland's Plains, Warangesda, and Wauchopa. The following extracts from the reports furnished with regard to the Cumeroo-gunga and Warangesda schools are quoted as instances of the good work that is being done :—

Cumeroo-gunga.—“This school is very well conducted, and the results obtained thereat are far in advance of those achieved in several of the ordinary public schools.”

Warangesda.—“In their general appearance and conduct the pupils bear favourable comparison with white children attending ordinary schools.”

The police have been successful during the year in obtaining convictions against a number of persons in the Metropolitan District for supplying intoxicating liquor to Aborigines; also in the following country districts :—Brewarrina, Cobar, Lismore, Moree, Murwillumbah, and Tamut. Prosecutions were also instituted at other places, but on the grounds of insufficient evidence the cases were dismissed.

At the Home for Aborigines, in the Clarence District, satisfactory progress has been made during the year in the cultivation of the land and in effecting improvements—clearing, ringbarking, fencing, excavation of large underground tank, &c. A total sum of £86 18s. 8d. has been realised during the twelve months by the sale of farm produce. One of the satisfactory results achieved by the establishment of the Home is the fact that by a thorough training in farm work, and the observance of a regular system of working hours, the Aborigines now find very little difficulty in obtaining employment in the district at good wages. The number of Aborigines in residence at the Home on the last day of the year was 67.

A number of improvements have been made during the year at the Cumeroo-gunga Aboriginal Station, Murray River. The whole of the dwellings have been put in good repair and given a coat of lime; ornamental trees have been planted along the avenues; floors have been laid in some of the cottages; additional fencing has been erected; 200 acres suckered, and 75 acres cleared and grubbed. Two hundred and ten acres were also sown with wheat, giving a net return of 10 tons of hay and 260 bags of wheat. Seven additional farm blocks were taken up by Aborigines, raising the total to twenty. These blocks are all being cleared and cultivated, and very satisfactory progress is being made upon them.

At

At the Brewarrina Station about 1,000 acres have been suckered and other minor improvements effected. The total amount of revenue derived during the year was £195 15s. 2d., particulars of which will be found in Appendix H. As the total expenditure for all supplies and services was £211—a sum larger by £15 only than the revenue—the station may now be said to be self-supporting, a condition of affairs which the Board consider eminently satisfactory. Owing to the continuous drought it became compulsory at the end of the year to remove most of the large stock to Dubbo for feed. The conduct of the Aborigines has been good, and the Local Board express satisfaction with the attention given by the manager and matron to their duties.

Owing to representations made to the Board as to the very insanitary condition of the Aborigines' dwellings and surroundings at the Brungle Aboriginal Station, and the neglect and inaptitude of the manager for his duties, a personal visit of inspection to the Settlement by one of the Members of the Board, accompanied by the Secretary, was decided upon. The statements made to the Board were fully borne out, and as a result it was decided to at once make a change in the management, and to arrange for the early carrying out of a number of very desirable alterations with a view to improving the condition of the Settlement. The new manager took charge on the 14th November. Permits were obtained from the Lands Department to enable the Aborigines to obtain timber for new dwellings from one of the district Forest Reserves, and upon the completion of the harvesting of the Station wheat crop the work of cutting and splitting the material was commenced. It is proposed to provide all the inmates with new dwellings, and to have the same erected upon a more suitable portion of the Reserve.

It having been brought under the notice of the Board that a number of able-bodied persons, many of whom should be classed as Europeans rather than as Aborigines, were in residence at the Aboriginal Stations, it was decided to issue a Circular to all Local Boards and Managers of such Stations, impressing upon them the desirability of furthering by every means in their power the aim of the Board, that all youths and girls should, after receiving instruction, and when of an age fit to work for a livelihood, be placed in suitable service or induced to accept it. It was at the same time again pointed out that the reasons for forming such establishments were simply that they might be asylums for the aged, crippled, or infirm; that the children might be provided with schooling and instruction; and that a home might be provided for Aborigines where they could find means to labour for the support of their families; not a place where people—not Aborigines—of all ages and both sexes could idle their lives away as pensioners on the public.

Since the issue of this Circular the manager of the Warangesda Station has reported that he has sent several half-caste girls to service, and that they were giving satisfaction. The manager at Brungle also states that a number of young men and women have been induced to leave the Station and accept employment in different parts of the country.

The receipts from produce at the various Aboriginal Stations during the year reached a total of nearly £600. This money was lodged to a special account opened with the Commercial Banking Company of Sydney (Limited), on authority obtained from the Treasury, and expended in paying claims for labour, farm horses and waggons, farming implements, provisions, tools, fencing wire, sheep, seed, clothing, building material, &c. A detailed statement will be found in Appendix H.

The receipts from the Sale Stores at the Cumerogunga and Warangesda Aboriginal Stations totalled £421 16s. 10d., and the expenditure £409 15s. (*See Appendix I.*)

A sum of £318 13s. 10d. was, on the 31st December, lying to the credit of a Trust Account, opened by the Board with the Government Savings Bank, being the amount of wages received in trust from employers of a number of Aboriginal children apprenticed from the stations. The Board are now taking steps in a number of cases with a view to the money being expended for the benefit of those entitled to it.

In conclusion, the Board desire to express their appreciation of the valuable assistance cheerfully rendered them by the several District Boards of Advice and the Members of the Police Force generally in furthering their aims for ameliorating the condition of the race.

We have, &c.,

EDMUND FOSBERY, Chairman.	} Members of Board.
SYDNEY BURDEKIN,	
J. M. CHANTER,	
JOHN SEE,	
UNNI W. CARPENTER,	
G. E. ARDILL,	
W. C. HILL,	

APPENDICES.

APPENDICES.

APPENDIX A.

CENSUS RETURN OF ABORIGINES, YEAR 1898.

Locality.	Full-bloods.							Half-castes.							Grand Total.		
	Men.			Women.			Children.	Total.	Men.			Women.				Children.	Total.
	Ages.			Ages.					Ages.			Ages.					
	20 to 40 years.	40 to 60 years.	Over 60 years.	20 to 40 years.	40 to 60 years.	Over 60 years.			20 to 40 years.	40 to 60 years.	Over 60 years.	20 to 40 years.	40 to 60 years.	Over 60 years.			
Animbo	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	
Arakoon	8	6	...	8	...	...	4	26	4	3	...	4	...	1	21	33	
Arakuen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
Armidale	2	...	...	2	...	...	...	4	3	2	1	2	1	...	13	22	
Ashford	7	...	6	2	1	...	5	21	3	2	...	1	2	...	18	26	
Ballina	4	2	...	2	...	...	...	8	...	1	...	...	...	...	2	3	
Balranald	3	4	...	5	1	...	7	20	1	...	...	1	...	...	4	6	
Baradine	1	...	...	...	...	...	...	1	3	5	...	5	2	...	21	36	
Barraba	...	...	...	...	...	...	...	...	4	...	...	3	2	...	19	28	
Barrington	13	5	...	11	1	...	19	49	6	...	...	6	...	...	8	20	
Bateman's Bay	...	1	...	1	...	...	...	2	1	...	...	1	...	...	6	8	
Bathurst	1	...	...	...	...	...	...	1	...	...	...	1	...	...	1	2	
Bellingen	5	5	4	3	5	2	8	32	2	...	...	2	...	...	10	14	
Bendemeer	1	...	...	...	...	...	...	1	...	1	...	...	...	...	1	2	
Bingara	...	1	...	...	...	...	...	1	...	1	...	...	1	...	2	4	
Blackville	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
Boggabilla	9	1	...	7	2	...	12	31	3	...	...	3	...	...	6	12	
Boggabri	2	...	...	...	...	...	1	3	...	4	...	2	...	...	8	14	
Booligal	...	1	...	2	4	...	...	7	1	...	...	1	...	...	6	8	
Bourke	4	2	3	4	2	5	6	26	5	1	...	4	2	...	10	22	
Brewarrina	13	11	2	14	12	5	15	72	7	5	...	6	1	...	28	47	
Broadwater	3	1	1	1	...	...	2	8	...	...	...	2	...	...	6	8	
Broke	...	1	...	1	...	...	1	3	...	...	...	...	...	...	...	3	
Broken Hill	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
Brungle	8	5	4	6	3	...	10	36	10	8	...	12	5	...	32	67	
Brushgrove	2	1	1	2	1	...	2	9	...	...	...	...	...	...	1	1	
Bundarra	...	4	...	1	...	...	3	8	3	2	...	4	...	1	20	30	
Bungwall Flat	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	
Burrier	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
Byron Bay	1	...	1	...	...	...	...	2	...	...	...	...	...	...	...	2	
Camden	...	...	...	...	...	...	...	...	1	1	...	...	2	1	3	8	
Cannonbar	2	2	4	3	2	3	8	24	3	...	...	4	...	...	11	18	
Canowindra	1	...	...	...	...	...	1	2	...	1	...	...	2	...	1	4	
Carroll	...	...	...	...	...	...	...	...	4	...	...	1	...	...	7	12	
Casinc	20	20	8	24	22	6	45	145	4	1	...	3	1	...	21	30	
Cassilis	1	1	...	...	...	...	1	2	1	...	...	...	...	...	1	3	
Cessnock and Ellalong	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	
Chatsworth	...	3	1	...	1	...	3	8	1	...	...	2	...	...	3	11	
Clare	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	
Cobar	7	8	10	4	4	11	20	64	1	1	...	1	...	...	3	6	
Condobolin	8	5	...	2	2	...	9	26	4	3	...	6	...	...	6	19	
Coolamon	...	1	...	2	...	...	...	3	3	...	...	...	...	...	1	4	
Cooma	1	...	...	...	...	...	...	1	...	...	...	1	...	...	1	2	
Coonabarabran	...	1	...	...	...	...	...	...	6	3	1	5	3	1	25	44	
Coonamble	12	8	2	5	2	3	29	61	3	1	...	3	1	...	8	16	
Copeland	1	1	1	1	...	...	7	11	1	1	...	2	...	...	14	18	
Copmanhurst	4	12	1	8	8	...	26	59	5	1	...	5	2	...	15	28	
Coraki	7	5	1	6	5	...	9	33	3	...	...	2	1	...	13	19	
Coramba	...	1	3	1	...	...	...	5	...	...	...	...	...	...	...	5	
Corowa	...	4	...	2	...	...	2	8	...	...	...	...	...	...	2	2	
Cowra	3	...	...	4	2	1	7	17	5	4	...	4	1	...	16	30	
Cudgen	1	...	1	2	...	...	...	4	...	...	...	2	...	...	1	3	
Cumerogunga	15	4	1	4	2	1	3	30	28	13	...	24	12	...	109	186	
Dalmorton	...	...	...	...	...	...	...	...	4	...	...	...	1	...	9	14	
Dandaloo	4	2	...	3	3	1	9	22	6	1	...	4	1	...	19	31	
Delegate	3	4	1	4	...	...	4	16	1	2	...	...	...	...	5	6	
Deniliquin	...	2	5	...	...	...	...	7	5	3	...	5	2	...	21	36	
Drake	8	10	5	6	8	2	46	85	3	...	...	1	...	...	8	12	
Dubbo	12	2	1	4	1	1	5	26	4	1	...	5	1	1	17	29	
Dungog	1	...	1	...	...	...	...	2	...	1	...	...	...	...	6	7	
Eden	...	3	...	...	...	1	5	9	1	...	1	1	...	...	8	11	
Emu Flat	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	
Euabalong	2	2	1	4	...	...	11	20	7	2	...	5	1	...	19	34	
Engowra	1	1	...	1	...	...	1	4	4	2	...	4	2	...	9	21	
Eulourie	1	...	...	...	...	...	...	1	1	2	...	1	...	...	4	5	
Euston	2	4	...	1	2	...	...	9	...	...	...	...	...	...	...	9	
Forbes	6	3	1	5	1	...	6	22	4	1	...	4	2	...	20	31	
Forster	1	1	1	1	1	1	5	11	6	4	...	7	4	...	30	51	
Garah	3	4	3	6	4	2	17	39	5	5	1	5	5	1	37	59	
Gladstone	2	1	1	2	2	...	6	14	4	1	...	2	...	...	12	19	
Glen Innes	...	1	...	...	...	...	...	1	...	...	...	1	...	...	8	9	
Goodooga, Angledool, and Tatalla	15	19	18	20	14	20	29	135	8	...	...	13	...	...	33	54	
Goulburn	2	...	...	...	...	...	...	2	...	...	...	3	...	...	7	10	
Grafton	9	4	1	6	4	3	22	49	2	...	...	3	...	...	14	19	
Grafton South	5	3	3	3	4	2	10	30	3	2	...	2	...	...	3	10	
Grenfell	...	1	...	...	...	...	...	1	...	1	...	1	1	...	3	4	
Grong Grong	1	...	...	...	...	...	1	2	...	2	...	...	...	...	11	15	

APPENDIX A—continued.

Table with columns: Locality, Full-bloods (Men/Women by Ages, Children, Total), Half-castes (Men/Women by Ages, Children, Total), Grand Total.

APPENDIX A—continued.

Locality.	Full-bloods.							Half-castes.							Grand Total.				
	Men.			Women.				Children.	Total.	Men.			Women.				Children.	Total.	
	Ages.			Ages.						Ages.			Ages.						
	20 to 40 years.	40 to 60 years.	Over 60 years.	20 to 40 years.	40 to 60 years.	Over 60 years.	20 to 40 years.			40 to 60 years.	Over 60 years.	20 to 40 years.	40 to 60 years.	Over 60 years.					
Trankey	...	...	...	...	...	...	...	3	...	...	3	...	...	10	16	16			
Tuena	2	1	...	...	...	...	...	2	...	...	...	...	...	...	2	2			
Tumbarumba	...	...	...	...	...	...	...	...	3	...	1	...	...	3	7	7			
Tumbulgum	2	...	1	1	...	...	1	5	...	...	...	...	...	...	5	5			
Uhadulla	2	...	...	1	...	2	1	6	10	2	1	9	1	2	33	58			
Ulmarra	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1			
Uralla	2	2	1	...	1	...	...	6	...	3	...	3	...	16	22	28			
Urana	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	1			
Walbundrie	...	...	...	1	...	...	1	2	...	...	...	...	...	1	1	3			
Walcha	8	2	3	4	4	...	14	35	4	7	...	9	4	52	76	111			
Walcha Road	...	...	...	...	...	...	...	...	2	...	1	...	...	6	9	9			
Walgett	10	13	2	13	6	1	20	65	8	3	...	10	2	62	85	150			
Wallaga Lake	5	7	2	3	5	2	2	26	19	12	1	30	13	58	133	159			
Wanaaring, Yantabulla, & Ford's Bridge	24	7	4	15	8	4	14	76	2	...	1	...	...	11	14	90			
Warangesda	3	3	1	5	1	1	11	25	2	1	...	10	3	38	54	79			
Wardell	3	4	1	1	3	1	...	13	2	2	...	6	...	21	31	44			
Warialda	...	2	1	...	...	...	...	3	1	...	...	...	...	...	1	4			
Warren	4	1	...	1	...	...	2	8	...	...	1	...	...	4	5	13			
Wellington	2	4	...	2	...	...	10	18	10	4	1	7	3	28	53	71			
Wilcannia	6	2	3	6	1	...	1	19	...	...	1	...	...	2	3	22			
Wentworth	1	6	...	3	...	...	5	15	...	1	...	...	...	...	1	16			
Wee Waa	4	...	2	5	1	...	12	24	3	...	1	1	...	8	13	37			
Werris Creek	...	3	...	2	2	1	4	12	19	10	2	13	8	34	86	98			
White Cliffs	...	2	...	1	2	...	1	6	...	...	...	...	...	...	...	6			
Whitton	...	...	...	...	...	...	...	...	1	...	1	...	...	2	4	4			
Wilson's Downfall	...	2	3	1	3	...	4	13	1	...	1	...	...	6	8	21			
Windsor	2	2	...	3	...	...	2	9	16	6	3	9	6	58	98	107			
Wingham	2	1	...	1	...	...	3	7	2	3	...	2	...	18	25	32			
Woodburn	1	1	...	...	...	...	...	2	...	...	...	...	...	...	...	2			
Woodenbong	9	4	...	4	4	...	11	32	3	...	1	...	...	7	11	43			
Woolgoolga	1	2	...	3	3	...	5	14	1	1	...	1	...	2	5	19			
Wollar	...	3	...	2	...	...	3	8	3	...	...	1	...	13	17	25			
Wollombi	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1			
Wollongong	1	1	1	...	...	...	...	3	2	1	...	2	2	1	10	18			
Yamba	1	1	...	1	...	...	3	6	...	...	...	...	...	...	...	6			
Yass	1	...	...	1	...	...	...	2	16	7	4	11	7	3	62	110			
Yetman	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1			
Young	2	1	...	...	...	...	...	3	...	...	...	...	...	...	...	3			
Total	640	475	225	464	317	149	960	3,230	596	225	26	538	186	21	2,069	3,661	6,891		

APPENDIX B.

CENSUS RETURNS, 1898.

Comparison with year 1897.

	Full-bloods.				Half-castes.				Grand Total.
	Adults.		Children.	Total.	Adults.		Children.	Total.	
	Males.	Females.			Males.	Females.			
By return, 1897	1,443	980	999	3,422	824	753	2,086	3,663	7,085
Do 1898	1,340	930	960	3,230	847	745	2,069	3,661	6,891
Decrease	103	50	39	192	...	8	17	2	194
Increase	...	...	...	...	23	...	...	...	...

Total Decrease, Full-bloods ..... 192  
 ,, Half-castes ..... 2

Total Decrease ..... 194

BIRTHS and DEATHS, YEAR 1898.

Full-bloods.		Half-castes.	
Births reported	77	Births reported	160
Deaths reported	144	Deaths reported	52
Decrease by Deaths over Births	67	Increase by Births over Deaths	108

APPENDIX C.

Department.	Particulars.	Amount expended.						
		£	s.	d.	£	s.	d.	
Aborigines Protection Board.....	Rations, clothing, medical comforts, seed, farming implements, fencing-wire, fishing boats, fishing tackle, erection of dwellings, &c., &c. (for aborigines generally) .....	9,077	16	7				
	Expenses in connection with the Home for Aborigines, Clarence River—Salary of Manager, wages of aborigines, rations, clothing, medical comforts, seed, building material, and sundries .....	412	18	1				
	Expenses in connection with the Cumeroogunga, Warangesda, and Brewarrina Aboriginal Stations—Rations, clothing, medical comforts, drugs, building material, farming implements, seed, fencing-wire, sheep, harness, salaries of managers and matrons, wages of aborigines, and sundries .....	2,012	15	8				
	Conveyance of aborigines on the railway lines of the Colony .....	222	14	1				
	Salary of Secretary .....	75	0	0				
Chief Secretary .....	Burial expenses—aborigines .....				11,801	4	5	
Chief Medical Officer .....	Medical attendance and medicine .....				83	6	9	
Government Stores .....	Blankets, clothing, stationery, &c. ....				876	14	7	
Public Instruction .....	Repairs to buildings, salaries of teachers, school-books, fuel and cleaning, in connection with schools specially for aboriginal children .....				2,893	0	0	
						936	16	2
					<b>£16,591</b>	<b>1</b>	<b>11</b>	

APPENDIX D.

EXPENDITURE by the Board on Aborigines generally, 1898.

Locality.	Average monthly number receiving aid.		Period.	Nature of Supply or Service.	Amount expended during the year.
	Adults.	Children.			
Alstonville.....				Brass half-moon for aboriginal woman.....	£ 0 15 0
Angledool .....	24	10	12 months...	Rations and clothing .....	182 10 3
Baan Baa .....		5	12 "	" .....	17 19 3
Ballina .....	2		12 "	Rations .....	7 1 3
Balranald .....	10	2	12 "	Rations and clothing .....	83 13 6
Barrington .....	5	16	12 "	Rations .....	99 19 1
Barrington .....	4		7 "	Rations and clothing .....	16 5 2
Bellinger River.....	23	3	12 "	" .....	65 4 6
Boggabilla .....	4	5	12 "	" .....	35 18 11
Bonshaw .....	3	1	12 "	Rations .....	22 12 9
Boola Boolka.....		8	12 "	" .....	27 19 3
Bowraville .....	23		12 "	Rations and clothing .....	103 6 9
Breeza .....	3	5	12 "	Rations .....	25 11 7
Brewarrina .....	21	23	12 "	Manager's salary, aborigines' wages, provisions, medical comforts, and clothing.	134 13 6
Broadwater .....	2		12 "	Rations .....	11 5 3
Brungle .....	53	37	12 "	Rations, clothing, medical comforts, building material, farming implements, fencing-wire, seed, superintendent's allowance, aborigines' wages, and sundries.	574 11 2
Brushgrove .....	3		12 "	Rations .....	15 11 4
Bunalbo .....	1		6 "	" .....	3 18 0
Bungawalbyn .....	3		12 "	" .....	16 14 6
Burraborang .....	7	18	12 "	Rations and roofing-iron .....	95 18 5
Burrier .....	1		10 "	Rations .....	7 16 9
Bushfield .....	9	11	12 "	Rations, plough, and harrow. ....	60 11 0
Byrock .....	1		1 month ..	Rations .....	0 12 6
Byron Bay.....	1		12 months...	" .....	5 6 1
Cabbage-tree Island...	5	5	12 "	" .....	31 7 10
Calmo and Deniliquin	12	15	12 "	Rations, fencing-wire, and tent.....	64 7 7
Camira .....	4		12 "	Rations .....	23 12 10
Casino .....	1		2 "	" .....	0 16 10
Cobar .....	3		12 "	" .....	11 9 10
Colane .....	21	13	12 "	" .....	125 9 1
Collarendahri .....	7	4	12 "	" .....	42 17 8
Conargo .....				Building material .....	4 0 0
Condobolin .....	8		8 months ..	Rations .....	18 18 1
Conoble .....	5	3	12 "	" .....	51 1 0
Coolangatta .....	4	16	12 "	Rations and clothing .....	51 16 8
Coonabarabran .....	2	2	2 "	Rations .....	2 9 2
Coonamble .....	5	5	12 "	" .....	65 14 8
Copmanhurst .....	2	2	12 "	" .....	10 7 9
Coraki.....	2		12 "	" .....	6 14 2
Coramba.....	3	1	12 "	" .....	22 16 2
Cowra .....	7	13	12 "	Rations, clothing, roofing-iron, painting school, and allowance to teacher.	101 2 9



## APPENDIX D—continued.

Locality.	Average monthly number receiving aid.		Period.	Nature of Supply or Service.	Amount expended during the year.
	Adults.	Children.			
Crudine .....	2	5	12 months...	Rations and clothing .....	£ s. d. 24 14 5
Cudgen .....	1	.....	11 " .....	Rations .....	4 15 1
Culgoa .....	8	7	9 " .....	" .....	15 7 8
Cumeroongunga .....	112	54	12 " .....	Rations, clothing, sheep, building material, drugs, harness, salaries of manager and matron, wages of aborigines, and sundries.	1,328 12 6
Currowan .....	1	9	12 " .....	Rations, clothing, and seed .....	29 13 9
Cuttabri .....	11	6	12 " .....	Rations and clothing .....	148 17 3
Delegate .....	14	8	12 " .....	Rations .....	81 16 2
Dandaloo .....	2	3	12 " .....	Rations and clothing .....	17 0 9
Drake .....	9	.....	12 " .....	Rations .....	33 10 7
Dubbo .....	10	10	12 " .....	Rations and clothing .....	66 13 4
Dungalear .....	7	18	12 " .....	Rations .....	114 15 1
Dungog .....	3	3	.....	Clothing .....	1 7 6
Dyraaba .....	4	.....	12 months	Rations .....	28 11 10
Eden .....	7	6	12 " .....	Rations, clothing, and saw .....	39 19 1
Enabalong .....	16	17	12 " .....	Rations .....	80 9 5
Eugowra .....	5	13	12 " .....	" .....	50 7 4
Eurabba .....	15	20	12 " .....	" .....	242 10 4
Forbes .....	15	15	12 " .....	" .....	74 6 6
Forster .....	11	17	12 " .....	Rations, clothing, and building material .....	111 11 0
Gerringong .....	6	10	12 " .....	Rations, clothing, and paint for boat .....	50 10 7
Glen Innes .....	2	6	12 " .....	Rations .....	21 13 0
Glenorchy .....	6	6	12 " .....	Rations and clothing .....	61 7 3
Goodooga .....	22	3	12 " .....	" .....	179 2 3
Goonal .....	6	.....	12 " .....	Rations, clothing, and roofing iron .....	40 12 3
Gosford .....	1	.....	12 " .....	Rations .....	4 13 0
Grafton .....	41	23	12 " .....	Rations, clothing, building material, seed, tools, harness, manager's salary, aborigines' wages, and sundries.	412 18 1
Grafton South, Orara, and Glenugie. ....	9	1	12 " .....	Rations .....	38 13 3
Greenwell Point .....	5	7	12 " .....	Rations, clothing, and boat gear .....	57 4 3
Gulargambone .....	10	21	12 " .....	Rations and building material .....	160 3 5
Gunnedah .....	4	.....	12 " .....	Rations and clothing .....	36 13 6
Hillston, Merowie, and Willanthry. ....	9	17	12 " .....	" .....	39 5 1
Hunter Water Hole... ..	11	15	12 " .....	" .....	83 9 10
Illawarra Lake .....	5	7	12 " .....	Rations, clothing, tools, repairs to boat, boat gear, and fishing tackle.	44 8 4
Jervis Bay .....	3	8	12 " .....	Rations and repairs to boat .....	39 10 3
Kajuligah .....	2	.....	12 " .....	Rations .....	14 7 3
Keewong .....	4	6	12 " .....	Rations and clothing .....	58 4 0
Kyogle .....	4	.....	12 " .....	Rations .....	28 11 10
La Perouse .....	8	8	12 " .....	Rations, medical comforts, water rates, fencing, repairs to boat, and boat sails.	167 3 8
Lawrence .....	6	.....	12 " .....	Rations .....	29 15 1
Lionsville .....	3	3	12 " .....	" .....	23 12 6
Lismore .....	5	.....	12 " .....	" .....	20 5 9
Macksville and Nabucca Heads. ....	28	11	12 " .....	Rations and clothing .....	75 14 1
Macleay River .....	63	40	12 " .....	Rations, clothing, medical comforts, building material, tools, seeds, and sundries.	227 7 8
Mallara .....	2	5	12 " .....	Rations and clothing .....	24 19 2
Marfield .....	4	4	12 " .....	Rations .....	46 5 0
Maryland .....	2	.....	12 " .....	" .....	12 8 3
Megalong .....	6	5	12 " .....	" .....	55 9 3
Millera .....	4	3	12 " .....	" .....	30 7 10
Milrea .....	3	.....	12 " .....	" .....	24 1 3
Milparinka .....	24	.....	.....	Clothing .....	14 8 0
Mole River .....	2	.....	12 months...	Rations .....	16 3 0
Mogil Mogil .....	8	14	12 " .....	" .....	104 10 2
Moolah .....	2	1	12 " .....	Rations and clothing .....	23 1 1
Moorara .....	3	4	6 " .....	Rations .....	7 6 3
Moree .....	6	9	12 " .....	" .....	51 9 5
Mungindi .....	10	1	12 " .....	" .....	55 17 1
Murrumbong .....	5	7	12 " .....	" .....	63 15 0
Marwillumbah .....	6	2	12 " .....	" .....	33 14 9
Narrabri .....	3	5	12 " .....	Rations and clothing .....	48 9 3
Narrandera and Grong Grong. ....	8	11	12 " .....	Rations .....	43 19 4
Nymboida .....	5	1	12 " .....	" .....	25 1 11
Nyngan .....	2	.....	12 " .....	" .....	4 4 0
Oban .....	10	8	12 " .....	" .....	71 17 4
Parkes .....	2	4	12 " .....	Rations and clothing .....	22 10 4
Pilliga .....	22	6	12 " .....	Rations .....	121 15 6
Poolamacca .....	13	1	12 " .....	Rations and clothing .....	91 4 4
Port Macquarie .....	23	24	12 " .....	Rations, clothing, and medical comforts .....	130 2 1
Port Stephens .....	7	6	12 " .....	Rations, clothing, paint for boat .....	79 3 0
Pretty Gully .....	5	2	12 " .....	Rations and clothing .....	33 6 3
Quambono .....	17	12	12 " .....	Rations .....	118 0 6
Rivertree .....	4	.....	12 " .....	" .....	26 14 4
Rylstone .....	2	8	12 " .....	" .....	27 13 8
Singleton .....	22	34	12 " .....	Rations, clothing, medical comforts, building material, repairs to dray, plough, seed, and sundries.	247 6 4
Sturt's Meadow .....	3	.....	12 " .....	Rations .....	3 12 6

## APPENDIX D—continued.

Locality.	Average monthly number receiving aid.		Period.	Nature of Supply or Service.	Amount expended during the year.
	Adults.	Children.			
Swansea .....	2	2	12 months...	Rations .....	£ s. d. 19 16 9
Tabulam .....	5	.....	12 " "	" " .....	17 17 11
Tarce .....	20	19	12 " "	Rations, clothing, medical comforts, and repairs to boat.	109 14 6
Tatalla .....	17	7	12 " "	Rations .....	204 19 7
Terembone .....	15	12	12 " "	" " .....	185 6 11
Terry-hie-hie .....	17	18	12 " "	" " .....	225 3 1
Tibooburra .....	4	.....	10 " "	" " .....	27 3 0
Tooloom .....	2	.....	9 " "	" " .....	14 3 11
Tooloon .....	2	5	12 " "	" " .....	35 18 5
Trangie .....	4	.....	12 " "	" " .....	10 10 3
Turlingah .....	10	4	12 " "	Rations and clothing .....	34 12 7
Ulladulla .....	7	8	12 " "	Rations, clothing, medical comforts, repairs to hut	77 13 2
Unungar .....	5	1	12 " "	Rations .....	55 4 10
Uralla .....	4	9	12 " "	Rations and building material .....	40 2 1
Walcha .....	6	28	12 " "	Rations, fencing wire, roofing iron, tools, and seed	68 17 4
Walcha Road and Ingalba.	19	45	12 " "	Rations, clothing, and seed .....	125 19 7
Walgett .....	9	11	12 " "	Rations .....	81 0 6
Walhallow .....	3	6	12 " "	" " .....	28 0 4
Wallaga Lake .....	52	32	12 " "	Rations, clothing, medical comforts, sundries, and Superintendent's allowance.	373 3 10
Wanaaring .....	5	.....	12 " "	Rations .....	44 10 0
Warangesda .....	64	44	12 " "	Rations, clothing, ironmongery, fencing wire, drugs, building material, harness, sheep, sundries, and salaries of manager and dormitory matron.	549 9 8
Wee Waa .....	3	.....	3 " "	Rations .....	4 12 9
Weilmoringle .....	5	1	12 " "	" " .....	36 11 6
Wellington .....	11	22	12 " "	Rations, clothing, building material, and fencing wire.	220 19 2
Wilcannia .....	2	2	12 " "	Rations and erection of hut .....	22 19 0
Windsor .....	40	61	12 " "	Rations .....	183 0 3
Wingham .....	2	13	12 " "	" " .....	32 3 11
Wollar .....	7	8	12 " "	Rations and clothing .....	58 14 8
Woolloomubi .....	2	.....	12 " "	Rations .....	14 8 5
Wyangarie .....	4	3	12 " "	" " .....	37 16 8
Wyrallah .....	9	.....	12 " "	" " .....	46 14 3
Yass .....	19	39	12 " "	Rations, seed, and fuel .....	159 13 3
Yugilbar .....	2	3	12 " "	Rations and clothing .....	19 10 1
Incidental Expenses .....	.....	.....	12 " "	.....	16 16 5
Railway Fares .....	.....	.....	12 " "	.....	222 14 1
Salary of Secretary .....	.....	.....	12 " "	.....	75 0 0
					11,801 4 5

## APPENDIX E.

Amounts paid for Medical Attendance on Aborigines, 1898.

Locality.	Amount.	Locality.	Amount.
	£ s. d.		£ s. d.
Armidale .....	2 10 0	Brought forward.....	450 4 0
Barrington .....	13 3 0	Kiama .....	40 0 0
Bega .....	0 10 0	Lismore .....	1 10 0
Bellingen and Fernmount.....	15 2 0	Macleay River .....	50 10 0
Bodalla .....	10 15 0	Megalong .....	3 0 0
Bourke .....	2 10 0	Moree .....	26 4 0
Bowraville .....	0 10 6	Moruya .....	6 2 0
Brungle .....	85 18 0	Murwillumbah .....	7 3 0
Burraborang .....	14 17 6	Narrabri .....	24 10 0
Cabbage-tree Island .....	15 2 6	Narrandera .....	4 0 0
Casino .....	54 10 0	Orange .....	1 0 0
Coolangatta .....	11 11 0	Poolamacca .....	1 19 6
Condobolin .....	4 10 0	Singleton .....	45 14 0
Cowra .....	15 15 0	Stuart Town .....	1 10 0
Cumeroogunga .....	50 0 0	Tarce .....	40 0 0
Dubbo .....	1 5 0	Ulladulla .....	17 2 0
Forbes .....	0 10 0	Uralla .....	5 0 0
Forster .....	9 13 0	Walcha .....	8 10 0
Goulburn .....	3 3 0	Walgett .....	0 10 0
Grafton .....	60 0 0	Wallaga Lake .....	10 11 7
Greenwell Point .....	1 5 0	Wellington .....	23 15 0
Hastings River .....	60 11 6	Wilcannia .....	3 0 0
Hillston .....	1 0 0	Wingham .....	25 0 0
Illawarra Lake .....	2 2 0	Yass .....	78 9 6
Ingalba .....	7 10 0	Young .....	1 10 0
Inverell .....	6 0 0		
Forward.....	£ 450 4 0	Total .....	£ 876 14 7

## APPENDIX F.

List of Articles supplied Aborigines from the Government Stores, 1893.

Locality.	No. receiving aid.		Nature of aid.	Locality.	No. receiving aid.		Nature of aid.
	Adults.	Children.			Adults.	Children.	
Ashford .....	8	6	Clothing.	Hillgrove .....	2	.....	Clothing.
Ballina .....	2	.....	..	Kookabookra .....	12	8	..
Broadwater .....	2	.....	..	Lawrence .....	17	.....	..
Brungle .....	.....	.....	Drugs.	Lismore .....	13	.....	..
Brushgrove .....	3	.....	Clothing.	Murwillumbah .....	8	1	..
Bundarra .....	8	7	..	Nymboida .....	7	6	..
Byron Bay.....	1	.....	..	Sydney.....	.....	.....	Stationery.
Casino .....	10	5	..	Tenterfield .....	2	.....	Clothing.
Chataworth .....	1	.....	..	Ulmara .....	1	.....	..
Copmanhurst.....	15	11	..	Uralla .....	6	6	..
Coraki .....	5	.....	..	Walcha.....	26	59	..
Coramba .....	8	2	..	Walcha Road .....	2	5	..
Cudgen .....	1	.....	..	Wardell .....	6	5	..
Drake .....	25	1	..	Wilson's Downfall...	7	.....	..
Glen Innes.....	2	5	..	Woodenbong .....	10	1	..
Grafton .....	22	25	..	Throughout the Colony .....	.....	.....	Blankets.
Grafton, South .....	14	.....	..				
Harwood .....	5	.....	..				

N.B.—The cost of these articles and their transit (£2,939) was defrayed from the Vote for Government Stores.

## APPENDIX G.

STATEMENT of Expenditure on account of Aborigines during the year 1898 by the Department of Public Instruction.

Name of School.	Salaries.	Books and apparatus.	Forage, travelling expenses, fuel, and cleaning.	Buildings, repairs, rent, and furniture.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Barrington .....	9 8 4	.....	.....	.....	9 8 4
Brewarrina .....	88 0 0	1 9 0	.....	.....	89 9 0
Cumeroozunga .....	206 11 10	9 15 1	7 6 11	0 16 0	224 9 10
Forster .....	56 10 0	2 1 9	3 10 9	6 9 3	68 11 9
Googeedee (Brungle).....	88 0 0	5 19 3	1 5 10	.....	95 5 1
Grafton .....	88 0 0	3 6 3	1 5 9	.....	92 12 0
Mulyan (Cowra).....	88 0 0	2 1 3	3 7 6	.....	93 8 9
Rolland's Plains .....	38 3 6	1 5 7	3 15 0	.....	43 4 1
Warangesda.....	171 0 0	3 17 5	2 5 10	.....	177 3 3
Wauchope .....	38 3 6	1 5 7	3 15 0	.....	43 4 1
Totals.....	£ 871 17 2	31 1 2	26 12 7	7 5 3	936 16 2

## APPENDIX H.

STATEMENT of Receipts and Expenditure, Produce Account, at the various Aboriginal Stations, 1898.

RECEIPTS.				EXPENDITURE.			
Station and Particulars.		Amount.		Station and Particulars.		Amount.	
	£	s. d.	£	s. d.		£	s. d.
Balance brought forward .....	147	19	1		Cumeroogunga—		
Transfer from Aborigines Protection Association .....	29	13	0		Farm waggon and harness .....	49	3 9
Cumeroogunga—					Farm horses.....	35	0 0
Sale of sheepskins and wool.....	164	4	11		Labour of aborigines—ploughing, sowing and harrowing, har-vesting, and chaff-cutting.....	49	10 10
Sale of wheat and chaff.....	46	17	8		Labour of aborigines—removing night-soil .....	10	10 0
Sale of meat .....	7	12	2		Labour of aborigines—butchering .....	10	2 7
Agistment .....	5	7	2		„ „ fencing .....	11	0 0
Sundries .....	1	7	9		„ „ cartinggoods .....	2	6 8
			225	9 8	Provisions .....	67	17 2
Warangesda—					Ironmongery and fencing-wire .....	24	11 8
Sale of sheepskins .....	67	14	5		Freight.....	15	0 11
Sale of meat .....	3	17	5				275 3 7
			71	11 10	Warangesda—		
Brewarrina—					Provisions .....	77	19 0
Sale of wool and sheepskins.....	142	13	6		Sheep .....	37	10 0
Sale of stock .....	35	7	5		Farm horses and harness .....	17	2 0
Sale of old harrow .....	5	18	11		Farming implements .....	4	16 6
Agistment .....	7	9	8		Seed wheat .....	5	14 10
Rent of paddock.....	2	0	0		Labour of aborigines—ploughing and harvesting .....	37	7 6
Sundries .....	2	5	8		Sundries .....	1	19 6
			195	15 2			182 9 4
Grafton—					Brewarrina—		
Sale of farm produce.....	83	2	10		Provisions and clothing .....	59	2 6
Sale of hides .....	1	15	10		Shearing .....	9	15 0
Agistment .....	2	0	0		Smithing, freight, and sundries .....	7	14 9
			86	18 8			76 12 3
Grong Grong Reserve —					Grafton—		
Agistment .....			18	7 0	Provisions and clothing .....	22	4 5
Brungle—					Building material .....	27	17 9
Sundries .....			0	6 0	Fencing material .....	9	2 6
					Sundries .....	1	2 0
							60 6 8
					Brungle—		
					Harvesting .....	7	10 6
					Ploughing and harrowing.....	16	10 3
							24 0 9
					Grong Grong—		
					Sundries .....		2 17 3
					Balance.....		154 10 7
							£776 0 5

## APPENDIX I.

STATEMENT of Receipts and Expenditure on account of Sale Stores at the Cumeroogunga and Warangesda Aboriginal Stations, 1898.

RECEIPTS.			EXPENDITURE.		
Station.	Amount.		Station.	Amount.	
	£	s. d.		£	s. d.
Balance brought forward .....	1	8 10	Cumeroogunga .....	308	5 9
Cumeroogunga .....	309	14 8	Warangesda .....	101	9 3
Warangesda .....	112	2 2	Balance .....	13	10 8
	£	423 5 8		£	423 5 8

## APPENDIX J.

CENSUS Returns, Brewarrina, Brungle, Cumeroogunga, Grafton, and Warangesda Aboriginal Stations, 1898.

Stations.	Population, 31st December, 1898.							Daily average population throughout the year.						
	Full-bloods.			Half-castes.			Grand Total.	Full-bloods.			Half-castes.			Grand Total.
	Adults.	Children.	Total.	Adults.	Children.	Total.		Adults.	Children.	Total.	Adults.	Children.	Total.	
Brewarrina .....	22	7	29	4	17	21	50	12	7	19	3	17	20	39
Brungle .....	27	11	38	35	28	63	101	20	9	29	31	31	62	91
Cumeroogunga .....	21	2	23	83	101	184	207	20	3	23	74	93	167	190
Grafton .....	35	13	48	12	7	19	67	22	19	41	6	3	9	50
Warangesda .....	20	4	24	35	46	81	105	16	12	28	26	38	64	92
	125	37	162	169	199	368	530	90	50	140	140	182	322	462

## APPENDIX K.

## REPORTS OF LOCAL BOARDS.

Sir, Aborigines' Protectorate, Local Board, Brewarrina, 5 April, 1899.

I have the honor to submit herewith the report of the Local Board for the year 1898.

Owing to the able-bodied aboriginal men having been on the Station for only short periods during the year, the manager could only get about one-third of the ringbarked country suckered, say, 1,000 acres. In addition to this, the ordinary work on the Station was satisfactorily attended to.

There were 50 people (29 full-bloods and 21 half-castes) sleeping on the Station the last night of the year. There was 1 birth, 4 deaths, and 2 marriages during the year. With the exception of an outbreak of measles, the health of the people was generally good. The measles affected 21 children and 9 adults; but, fortunately, through medicine being supplied from the Brewarrina Hospital, all the patients recovered.

The number of children on the School Roll was 11 girls and 8 boys, and when examined in May the classification of the three classes was very creditable.

The stock at the end of the year consisted of 698 mixed sheep, 7 cattle, and 6 horses. In addition to these there are 13 horses and 25 cattle at Dubbo, having been sent there for grass. There were 669 sheep shorn, yielding 5,063 lb. wool, giving a net return of £112 3s. 9d., and in addition to this, sheepskins and other oddments of wool realised £16 3s. 10d.

There were sold during the year 7 cattle for £16, 2 horses for £14, and 5 pigs for £5 10s. Three hundred and eighty-nine sheep were killed for rations during the year.

Two paddocks of about 500 acres each were leased for grazing large stock for three months for the sums of £21 and £19 respectively. The sum of £4 2s. was also received for agistment of sundry stock.

The year generally was a very dry one, especially so at the latter end, and in December it became compulsory to remove most of the large stock for grass. These were trucked at Byrock and sent on to Dubbo, where, owing to the continued severe drought, they still remain. The losses of stock owing to the drought were 7 horses, 8 cattle, and a few sheep, and unless a favourable change soon takes place more losses are sure to occur.

The conduct of the residents generally has been good.

The Manager and his wife (Mr. and Mrs. Hopkins) continue to give every attention to their duties, and the Board are very pleased with their management.

I have, &c.,

H. L. CATHIE,

Chairman, Local Board.

The Secretary, Aborigines' Protection Board, Sydney.

Dear Sir,

Grafton, 19 January, 1899.

It is our pleasing duty to again forward you our annual report for the year ending 31st December, 1898.

The number of aborigines at the Home at the end of the year was 67, and the average population during the year 50, the attendance at the school being 13 children.

At present the cattle number 43 and horses 6, the pasture being very good all the year round, and more than ample for the stock.

The present crops of maize, amounting to some 25 acres, were well killed, and early in the season showed great promise, but continuous dry weather has militated largely against the return; but the late rains will no doubt slightly increase the yield, and the crop turn out better than we anticipated.

A good deal of clearing and ringbarking has been done on the lower lands adjoining the cultivation, and half a mile of two-railed fence erected.

The large underground tank excavated by the Manager has been cemented and properly covered in and cleaned out. This is a very valuable asset to the Home, and the cost very small in comparison to its value.

The net return given by the Manager for the year is £92 4s. 4d., but we anticipate when more land is properly under cultivation that a much better result will accrue.

Upon our official visit the other day, a site was picked out for a barn, and orders given to remove certain unsightly sheds and timber which have accumulated while work was in progress on the farm.

The school attendance is not satisfactory, and the constant absence for long periods spoil the records of inspection.

The inmates seem happy and contented, although occasionally drunkenness takes place in town, which seems almost impossible to check.

The Manager and Matron deserve every credit for their untiring energy in making the Home so successful an undertaking.

Yours faithfully,

THOMAS PARKER, Chairman.

JAS. C. WILCOX, } Members.

GEO. CRISPIN, }

The Chairman, Aborigines' Protection Board, Sydney.

Sir,

Aboriginal Station, Brungle, 31 March, 1899.

I beg to submit the annual report of this Station for the year 1898.

The gentlemen comprising the Local Board have met eight times during the year, and have transacted a good amount of business on matters generally for the benefit of the Station.

The average attendance of children at the school has been 19.6—boys, 9.7; and girls, 9.9. The school has been closed on two occasions (two weeks each occasion) on account of the teacher's illness, by order of the Minister of Public Instruction. The District Inspector's report speaks very favourably of the general improvement of the school children all round.

The health of the Station has been fairly good during the year. The arrangement made with the District Government Medical Officer gives every satisfaction, and he has paid his monthly visits regularly.

*Births.*—Full-blood, 1 male; half-castes, 3 males and 2 females; total, 6.

*Deaths.*—Full-blood, 1 male; half-castes, 2 females; full-blood, 1 female; total, 4.

The

The conduct of residents has been only fair, but towards latter end of year one young man was expelled for misconduct, which seems to have had a beneficial result to Station.

One of the greatest of the vices of the Station (heading pennies) is now entirely eradicated, and the residents seem to be settling down to more healthy pastimes such as cricket, football, &c.

A good wire fence has been erected (about 12 chains), dividing the wheat paddock from the house paddock, and also about 14 chains have been erected dividing the grass paddock from the wheat paddock.

About 44½ acres of land were put under the plough for wheat crop, and the result has been fairly good. From 44½ acres 900 bushels of fairly good wheat was obtained, or an average of about 20 bushels to the acre. We also got nine bags of inferior or chick wheat.

We have two stacks of first-class clean straw, also a small stack, the whole comprising about 30 tons, which we intend to dispose of, if possible.

There are 3 tons of hay under the shed, and we will not want to purchase feed for our horses during ploughing time and the coming winter.

The gardens belonging to the Aborigines have been a failure, as the residents do not appear to care for the work of cultivation growing vegetables. The gardens originally were scattered over three paddocks. About 3 acres of ground have now been ploughed for gardens, and two men have been appointed, whose duty will be to have control of gardens, growing vegetables under the supervision of the Manager for the whole of the Station. The garden has been enclosed with a three-wire fence.

We have a good single-furrow plough, one set of harrows, also a good scarifier for corn-growing.

There are three horses on the Station, and they are in good condition now for ploughing, &c.

A good-sized wheat-shed has been erected, 22 feet long, 9 feet wide, and 9 feet high, now holding our 239 bags of wheat. This store is built 18 inches from the ground, and is perfectly mouse and rat proof. A store for rations has also been erected, 12 feet long, 8 feet wide, and 8 feet high, and fitted up inside with flour and sugar bins, shelving, &c.

A number of the young men and women have left the Station to try and better themselves. Some have gone to the Shoalhaven fossicking for gold, while others have gone to different places rabbiting; so, practically speaking, we have only the old men, women, and the children, and a few able-bodied men about the Station at the present time. The whole of the residents were camping away from the Station at Christmas time along the banks of the river, but, becoming a nuisance by preventing stock from grazing and danger from their camp fires, they were ordered to return to the Station.

J. H. HUBBARD,  
Manager.

Submitted.—J. JONES, Member of Local Board, 6th April, 1899. The Secretary, Aborigines' Protection Board, Sydney.

Dear Sir, Aboriginal Station, Cumeroogunga, Murray River, 20 January, 1899.

Herewith statistics as requested:—

Improvements have been made during the year as follows:—Formation has been made in Cooper-street, and proper fall given to gutters, so that no water lies on the street now for any time. Ornamental trees have been planted each side of Cooper and George Streets, and enclosed in high tree-guards. The trees are making good progress. The whole of the cottages (twenty-nine), with store and church buildings, have been whitewashed, which gives the village a bright and animated appearance. Four new floors have been laid in different cottages, part of dormitory removed and erected next Manager's residence. About 12 chains picket fencing erected round yards attached to cottages; 200 acres suckered; 75 acres cleared and grubbed; 130 chains five-wire fence erected round farm blocks.

Two hundred and ten acres were ploughed and sown with wheat—70 acres by station and 140 acres by the farm block men, giving a net return of 10 tons hay and 260 bags wheat.

Seven farm blocks were taken up during the year, making a total of twenty blocks now being cultivated and cleared, and on which they are making very satisfactory progress. More blocks would be taken up, but no land is available.

The school has made good progress during the year, as an extract from Mr. Inspector Nolan's annual report to the Public Instruction Department will show:—"The school at Cumeroogunga is very well conducted, and the results obtained thereat are far in advance of those achieved in several of the ordinary Public Schools." The average attendance for the year is as follows:—Boys, 29·8; girls, 26·4; total, 56·2. Number on roll, 64. A number of white children also attend the school, but they are not included in the figures given.

Births, 16; deaths, 7; marriages, 7.

Stock includes 166 sheep, 15 horses, 32 cattle, and all are in good condition.

Yours respectfully,  
GEO. H. HARRIS,  
Manager.

The Honorary Secretary, Local Board, Moama.

Forwarded to the Aborigines' Protection Board. The Local Board have visited the Station twelve times, and have held seventeen meetings during the year.—A. E. KINSEY, Chairman, C. L. BLAIR, Hon. Secretary, Local Board, Moama. The Secretary, Aborigines' Protection Board, Sydney.

Aborigines' Protectorate, Local Board,  
Darlington Point, 18 April, 1899.

Sir,

In compliance with your request I beg to report as follows:—

During the year Mrs. Smith, who had rendered faithful service as Dormitory Matron, resigned, and was succeeded by Miss Maspero, who, after only three months occupancy of the position, also resigned, and was succeeded by the present Matron, Mrs. Thorne. Mrs. Thorne has given complete satisfaction.

Mr. and Mrs. Pridham, Manager and Matron, who had for nine years been identified with the Aboriginal cause, and who had given three years of faithful and diligent service to Warangesda, also resigned their positions, and were succeeded by Mr. and Mrs. Macdonald. Mr. Macdonald has already proved himself to be an earnest worker.

In consequence of the severe drought which has devastated Riverina, about 70 acres put under wheat turned out to be a complete failure. Throughout the whole year grass was very scarce, and it was only with extreme difficulty that the stock were kept alive.

A vegetable garden, securely fenced, has been started in close proximity to the well, so that it might be irrigated. It is hoped that this enterprise will minister to the health of the residents, and materially reduce the expenditure for flour, &c.

A substantial fence has been erected between the Station and a neighbouring selector. A large quantity of dead timber has been gathered and burned, fences have been repaired, and much useful work of different kinds has been accomplished.

The conduct of the residents has been satisfactory on the whole, and their health has been good. The Station has always presented a clean and tidy appearance.

Several girls have been provided with suitable situations, and are reported to be doing well. The number of half-castes (men) has decreased during the year.

The marked improvement in the appearance of the girls, and of everything connected with the Dormitory reflects the greatest credit upon Mrs. Thorne.

The school continues to make satisfactory progress. During the year the Local Board endeavoured to secure the creation of a suitable residence for the teacher, and although their representations met with a definite promise that a residence would be erected without delay nothing has yet been done, and the teacher, with his family, has to continue to live in a house that is unfit for habitation.

G. R. F. NOBBS,

Hon. Secretary, Local Board,

Warangesda, Aboriginal Station.

The Secretary, Aborigines' Protection Board, Sydney.

#### APPENDIX L.

##### BOARD FOR PROTECTION OF ABORIGINES, 31 DECEMBER, 1898.

Chairman .....	Edmund Fosbery .....	5 June, 1883.
Members .....	Hon. Philip Gidley King, M.L.C. ....	5 June, 1883.
	Hon. W. H. Suttor, M.L.C. ....	25 July, 1890.
	J. M. Chanter, M.L.A. ....	31 Aug., 1894.
	John See, M.L.A. ....	25 June, 1897.
	Unni William Carpenter, J.P. ....	19 Oct., 1897.
	George Edward Ardill, J.P. ....	19 Oct., 1897.
	William Charles Hill, J.P. ....	16 Sept., 1898.
Secretary .....	A. Berckelman .....	30 April, 1888.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## INSPECTOR-GENERAL OF THE INSANE.

(REPORT FOR YEAR 1898.)

*Printed under No. 3 Report from Printing Committee, 22 August, 1899.*

The Inspector-General of the Insane to The Chief Secretary.

Sir,

Lunacy Department, Inspector-General's Office, Gladesville, 30 June, 1899.

I do myself the honor, in accordance with the 81st section of the Lunacy Act of 1898, to submit for your information a report on the state and condition of the Hospitals and other Institutions for the Insane for the year ending 31st December, 1898.

I have, &amp;c.,

ERIC SINCLAIR,

Inspector-General.

ON the 31st December, 1898, the number of insane persons under official cognizance was 4,073, and their distribution was as follows:—

Institution,	Number on Register.			Number on Leave.		
	Male.	Female.	Total.	Male.	Female.	Total.
Hospital for the Insane, Gladesville .....	523	344	867	14	27	41
Do Parramatta (Free) .....	676	382	1,058	9	9	18
Do do (Criminal) .....	45	8	53	.....	.....	.....
Do Callan Park .....	458	413	871	16	34	50
Do Newcastle .....	165	144	299	2	1	3
Do Rydalmere .....	352	149	501	.....	1	1
Do Kenmore .....	250	123	373	3	5	8
Licensed House for the Insane, Cook's River.....	15	18	33	1	.....	1
Do do Ryde .....	.....	8	8	.....	1	1
Do do Picton .....	.....	1	1	.....	.....	.....
South Australian Hospitals .....	5	4	9	.....	.....	.....
Total.....	2,479	1,594	4,073	45	78	123

The number on 31st December, 1897, was 3,957, so that the increase during the year was 116. This is only slightly over the average for twenty years, as shown in the following return:—

Year.	Increase.	Year.	Increase.	Year.	Increase.
1879.....	95	1886.....	74	1893.....	113
1880.....	88	1887.....	104	1894.....	162
1881.....	119	1888.....	76	1895.....	133
1882.....	98	1889.....	76	1896.....	125
1883.....	96	1890.....	128	1897.....	112
1884.....	121	1891.....	32	1898.....	116
1885.....	119	1892.....	178		

The total for twenty years is 2,165, or an average of 108 a year. Up to 1891 the average annual increase was 94, but the financial depression through which the Colony soon after passed induced an unusual amount of insanity, which has, till now, influenced the statistics. The increase for 1898—116—

may



may be accepted as a normal rate when the growth of the population of the Colony is considered. As the population increases, a proportionate addition to the number of the insane under care must be expected, but so long as this is not greatly out of proportion to the population no concern need be felt.

That it is not yet so can readily be shown. The insane under official cognizance number 4,073, and the population of the Colony, as estimated by the Government Statistician, 1,346,240. The proportion of insane to population is, therefore, 1 in 330½, while in England it is 1 in 308. In the latter country, which may be taken as a standard for purposes of comparison, there has been a gradual rise from 1 in 360 in 1878 to 1 in 308 in 1897. In New South Wales the ratio in 1878 was 1 in 362, about the same as in England, and it has now reached 1 in 330½, an increase only half as rapid as in England.

The ratio of admissions to population, or, as it has been called, the "occurring insanity," may also be taken as a measure of the amount of insanity in the Colony. Were insanity increasing out of proportion to the population a larger number per thousand would be sent to the hospitals, and the ratio thus increased. This, however, we do not find. During the years 1892 to 1896 inclusive, a larger proportion of admissions to population occurred; but in 1897-8 the ratio returned to about the average for the last twenty years. The figures are given in the following statement:—

Year.	Admissions.	Proportion to Population	Year.	Admissions.	Proportion to Population.
1879 .....	440	1 in 1,668	1889 .....	550	1 in 2,040
1880 .....	476	1 in 1,618	1890 .....	611	1 in 1,914
1881 .....	494	1 in 1,581	1891 .....	596	1 in 1,955
1882 .....	473	1 in 1,728	1892 .....	666	1 in 1,797
1883 .....	476	1 in 1,826	1893 .....	688	1 in 1,778
1884 .....	493	1 in 1,868	1894 .....	712	1 in 1,757
1885 .....	567	1 in 1,723	1895 .....	715	1 in 1,787
1886 .....	567	1 in 1,817	1896 .....	740	1 in 1,753
1887 .....	532	1 in 1,960	1897 .....	692	1 in 1,912
1888 .....	538	1 in 1,816	1898 .....	730	1 in 1,844

Average for 20 years, 1 in 1,808.

The patients on the register at the close of the year, 4,073, were distributed as follows:—3,901 were in the Hospitals for Insane, 40 were in licensed houses, 123 were absent on leave under the provisions of the Lunacy Act, and 9 were in Hospitals for the Insane in South Australia. The number in the Hospitals has increased by 116, in licensed houses the number has decreased by 3, and in South Australian Hospitals there was an increase of 3. The latter were sent from Broken Hill, under agreement with the South Australian Government. The arrangement works well, and is beneficial to the patients, who, otherwise, would have to be sent a journey of some 1,400 miles to a hospital in New South Wales, and to their friends who have an opportunity now of visiting them which they did not previously have.

The following tables show the admissions, discharges, and deaths; the proportion of recoveries; the rate of mortality; the causes of insanity in those admitted, those who recovered, and those who died; the causes of death; the length of residence in those who recovered and those who died; and also the ages, condition as to marriage, religious profession, nationality, and previous occupation of those admitted and of all under care, as well as the form of mental disorder in those admitted, those who recovered, and those who died during the year:—

TABLE I.

SHOWING the Admissions, Readmissions, Discharges, and Deaths in the Hospitals and Licensed Houses for the Insane during the year 1898.

	Male.	Female.	Total.
In Hospital on 31st December, 1897 .....	2,405	1,546	3,951
Admitted for the first time during the year .....	372	248	620
Readmitted during the year .....	54	56	110
Transferred during the year .....	95	40	135
	521	344	865
Total under care during the year 1898 .....	2,926	1,890	4,816
Discharge or removal—			
Recovered .....	174	148	322
Relieved .....	14	25	39
Transferred .....	95	40	135
Escaped (and not recaptured) .....	10	.....	10
Died .....	159	87	246
Total discharged or died during the year 1898 .....	452	300	752
Remaining .....	2,474	1,590	4,064
Average number resident during the year .....	2,413	1,497	3,910
* Persons under care during the year† .....	2,917	1,882	4,799
* Persons admitted .....	498	335	833
* Persons recovered .....	169	142	311

\* Persons, i.e., separate persons in contradistinction to "cases," which may include the same individual more than once.  
† Total cases minus readmission of patients discharged during the current year.

TABLE 2.

TABLE 2.

SHOWING the Admissions, Readmissions, Discharges, and Deaths, with the Mean Annual Mortality, and the Proportion of Recoveries, &c., per cent., in the Hospitals for the Insane, for the years 1876 to 1898 inclusive, and including the Licensed Houses, from the year 1882.

Year.	Admitted.						Transferred from other Hospitals, &c.			Discharged.						Transferred to other Hospitals, &c.			Escaped and not recaptured within 28 days.			Died.			Remaining in Hospital 31st December in each year.			Average number resident.			Percentage of recoveries on admissions and readmissions.			Percentage of recoveries on admissions and readmissions for Quinquennial periods.			Percentage of patients relieved on admissions and readmissions.			Percentage of patients relieved on admissions and readmissions for Quinquennial periods.			Percentage of deaths on average numbers resident.			Percentage of deaths on average numbers resident for Quinquennial periods.																		
	Admitted for the first time.		Readmitted.		Total.		M.		F.		Total.		Re-covered.		Relieved.		Total.		M.		F.		Total.		M.		F.		Total.		M.		F.		Total.		M.		F.		Total.		M.		F.		Total.		M.		F.		Total.											
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.																
1876	182	111	293	33	27	60	101	12	113	88	70	158	17	19	36	100	45	145	78	29	107	1072	533	1605	1052	536	1588	40	90	50	72	44	75				7	90	13	76	10	19				7	41	5	41	6	73													
1877	262	100	362	62	24	86	133	14	147	137	64	201	17	18	35	130	21	151	97	20	117	1147	548	1695	1130	529	1659	42	28	51	61	44	86				4	97	14	51	7	81				8	58	3	78	7	05													
1878	212	126	338	40	38	78	112	36	148	108	46	154	17	20	37	113	45	158	99	28	127	1174	609	1783	1175	579	1754	42	28	51	61	44	86	42	28	39	86	41	42	6	75	12	19	8	89	6	80	13	77	9	28	8	42	4	83	7	24	7	05	4	88	6	92	
1879	241	128	369	40	26	66	98	12	110	112	58	170	21	28	49	97	17	114	91	26	117	1232	646	1878	1188	620	1808	39	86	37	66	39	08				7	47	18	18	11	26				7	66	4	19	6	47													
1880	267	145	412	25	30	58	42	24	66	133	63	196	21	19	40	40	35	75	96	40	136	1276	688	1964	1249	665	1914	45	08	36	00	41	70				7	11	10	85	8	51				7	68	6	01	7	10													
1881	284	134	418	35	27	62	31	9	40	133	73	206	16	14	30	34	19	53	84	26	110	1354	726	2080	1314	700	2014	41	69	45	31	42	91				5	01	8	69	6	25				6	39	3	71	5	46													
1882	286	142	428	20	25	45	33	14	52	118	84	202	22	16	38	38	14	52	93	48	141	1430	877	2307	1392	854	2246	38	56	50	29	42	70				7	18	9	58	8	03				6	68	5	62	6	27													
1883	272	161	433	21	22	43	29	14	57	119	75	194	19	11	30	29	14	57	111	45	156	1474	929	2403	1443	904	2347	40	61	40	98	40	75	40	07	42	27	40	89	6	48	6	01	6	30	5	65	8	36	6	66	7	69	4	98	6	64							
1884	281	159	440	20	33	53	130	42	172	103	79	182	16	12	28	107	42	149	4	123	58	181	1552	972	2524	1503	932	2435	34	21	41	14	36	91				5	31	6	25	5	67				5	18	6	22	7	43												
1885	318	205	523	20	24	44	29	83	112	151	83	234	15	25	40	29	83	112	7	118	49	167	1599	1044	2643	1550	985	2535	44	67	36	24	41	26				4	43	10	91	7	05				7	61	4	97	6	58												
1886	345	196	541	18	8	26	27	88	115	174	99	273	16	10	26	27	88	115	7	121	66	187	1644	1073	2717	1604	1035	2639	47	93	48	52	48	14				4	40	4	90	4	55				7	54	6	37	7	08												
1887	302	179	481	30	21	51	19	10	29	115	99	214	11	14	25	19	10	29	4	111	74	185	1735	1086	2821	1670	1052	2722	34	63	49	50	40	22				3	31	7	00	4	69				6	64	7	03	6	79												
1888	333	196	529	32	27	59	37	14	51	167	108	275	20	11	31	37	14	51	5	132	68	200	1776	1122	2898	1738	1077	2815	45	75	48	43	46	76	41	33	40	30	44	34	5	47	4	93	5	27	4	29	4	36	4	31	7	59	6	31	7	10	7	30	6	36	6	94
1889	294	186	480	41	29	70	37	12	49	135	109	244	8	4	12	37	12	49	8	138	71	209	1822	1152	2974	1785	1104	2889	40	29	50	69	44	36				2	38	1	86	2	18				7	73	6	43	7	23												
1890	341	215	556	35	20	55	41	33	74	141	116	257	21	8	29	41	33	74	2	4	128	65	193	1906	1196	3102	1827	1133	2960	37	50	49	36	42	06				5	58	3	40	4	74				7	00	5	73	6	52											
1891	327	212	539	31	26	57	22	34	261	168	129	297	11	17	28	22	34	261	6	167	66	233	1912	1222	3134	1982	1167	3149	46	92	54	20	49	83				3	07	7	14	4	69				8	42	5	65	7	39												
1892	377	208	585	39	42	81	125	41	166	154	107	261	17	14	31	125	41	166	4	122	69	191	2031	1281	3312	1946	1205	3151	37	01	42	80	39	18				4	08	5	60	4	65				6	28	5	72	6	06												
1893	355	227	582	55	51	106	104	61	165	156	130	286	21	21	42	104	61	165	1	117	2	246	2092	1333	3425	2054	1258	3312	38	04	46	93	41	63	39	56	48	06	42	87	5	12	7	58	6	11	5	24	7	51	6	12	8	37	5	88	7	42	7	19	5	54	6	56
1894	395	249	644	31	37	68	84	104	188	162	134	296	27	27	54	84	104	188	1	113	60	199	2198	1389	3587	2124	1321	3445	38	02	46	85	41	57				6	33	9	44	7	58				6	12	5	22	5	77												
1895	389	220	609	61	45	106	205	68	273	175	133	308	32	20	52	205	68	273	3	151	72	223	2287	1429	3716	2209	1365	3574	38	90	50	19	43	08				7	11	7	54	7	21				6	83	5	27	6	21												
1896	378	251	629	72	39	111	83	52	135	185	147	332	26	19	45	83	52	135	7	165	66	231	2353	1488	3841	2298	1412	3710	41	11	50	68	44	86				5	77	6	55	6	08				7	18	4	67	6	22												
1897	342	235	577	59	56	115	154	150	304	149	138	287	17	23	40	154	150	304	6	177	72	249	2405	1546	3951	2355	1467	3922	37	15	47	42	41	47				4	23	7	90	5	78				7	51	4	90	6	51												
1898	372	248	620	54	56	110	95	40	135	174	148	322	14	25	39	95	40	135	10	159	87	246	2474	1590	4061	2413	1497	3910	40	84	48	68	44	10				3	28	8	22	5	34				6	58	5	81	6	29												

Average percentage of recoveries on admissions and readmissions for ten years, 1889-1898 ..... 39·50 48·68 43·13  
 Average percentage of patients relieved on admissions and readmissions for ten years, 1889-1898 ..... 4·79 6·71 5·55  
 Average percentage of deaths on average numbers resident for ten years, 1889-1898 ..... 7·18 5·49 6·54

TABLE 3.

SHOWING the Causes of Insanity,\* apparent or assigned, in the Admissions and Readmissions in the Hospitals and Licensed Houses for the Insane, during the year 1898.

Causes of Insanity.	Number of Instances in which each cause was assigned.								
	As predisposing cause †			As exciting cause †			Total ‡		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<b>MORAL—</b>									
Domestic trouble (including loss of relatives and friends) ...		1	1	4	17	21	4	18	22
Adverse circumstances (including business anxiety and pecuniary difficulties) ...				19	8	26	18	8	26
Mental anxiety and "worry" (not included under above two heads), and overwork ...	4	1	5	13	12	25	17	13	30
Religious excitement ...	1	1	2	7	2	9	8	3	11
Love affairs (including seduction) ...				1	1	2	1	1	2
Fright and nervous shock ...					5	5		5	5
Isolation ...		2	2	1	1	2	1	3	4
Nostalgia ...				1		1	1		1
<b>PHYSICAL—</b>									
Intemperance in drink ...	1		1	65	11	76	66	11	77
Do (sexual) ...									
Venereal disease ...				1		1	1		1
Self-abuse (sexual) ...	1		1		9	9	10		10
Sunstroke ...	2		2	6	1	7	8	1	9
Accident or injury ...	4		4	7	1	8	11	1	12
Pregnancy ...									
Parturition and the puerperal state ...					16	16		16	16
Lactation ...		1	1		2	2		3	3
Uterine and Ovarian disorders ...					3	3		3	3
Puberty ...	4	2	6	5	2	7	9	4	13
Change of life ...		3	3		2	2		6	5
Fevers ...				1		1	1		1
Privation and overwork ...	1		1				1		1
Phthisis ...				2		2	2		2
Epilepsy ...	9	6	14	8	12	20	17	17	34
Disease of skull and brain ...	1	1	2	18	2	20	19	3	22
Old age ...	23	13	36		1	1	23	14	37
Other bodily diseases and disorders and chronic ill-health	11	19	30	5	8	13	16	27	43
Excess of opium ...		1	1	3	1	4	3	2	5
<b>PREVIOUS ATTACKS</b> ...	57	56	113				57	56	113
<b>HEREDITARY INFLUENCE ASCERTAINED</b> ...	27	23	50				27	23	50
<b>CONGENITAL DEFECT ASCERTAINED</b> ...	19	17	36				19	17	36
<b>OTHER ASCERTAINED CAUSES</b> ...	1	2	3				1	2	3
<b>UNKNOWN</b> ...							118	74	192

\* These "causes" are taken from the statements in the papers received with the patients on admission, and are verified or corrected as far as possible by the Medical Officers.

† No cause is enumerated more than once in the case of any patient.

‡ The aggregate of the totals exceeds the whole number of patients admitted, the excess being due to the combinations.

TABLE 4.

SHOWING the Causes of Death in the Hospitals and Licensed Houses for the Insane during the year 1898.

	Male.	Female.	Total.
<b>CEREBRAL DISEASE—</b>			
Apoplexy and paralysis ...	6	1	7
Epilepsy and convulsions ...	14	7	21
General paralysis ...	42	3	45
Maniacal and melancholic exhaustion and decay ...	15	11	26
Inflammation and other diseases of the brain, softening, tumour, &c. ...	11	10	21
<b>THORACIC DISEASE—</b>			
Inflammation of lungs, pleura, and bronchi ...	9	13	22
Pulmonary consumption ...	13	14	27
Disease of heart and blood-vessels ...	14	8	22
<b>ABDOMINAL DISEASE—</b>			
Inflammation and ulceration of stomach, intestines, and peritoneum ...	3		3
Dysentery and diarrhoea ...	2	2	4
Albuminuria ...	3	1	4
Disease of bladder and prostate ...	1		1
Disease of liver ...			
<b>ERYSIPELAS</b> ...	2		2
<b>TYPHOID FEVER</b> ...			
<b>GENERAL DEBILITY AND OLD AGE</b> ...	16	8	24
<b>SEPTICÆMIA</b> ...		2	2
<b>CANCER</b> ...	4	2	6
<b>INFLUENZA</b> ...	2	5	7
<b>MARASMUS</b> ...	1		1
<b>ACCIDENT</b> ...			
<b>SUICIDE</b> ...	1		1
<b>Total</b> ...	159	87	246

TABLE 5.

SHOWING the Length of Residence in those discharged recovered, and in those who have died in the Hospitals and Licensed Houses for the Insane during the year 1898.

	Recovered.			Died.		
	Male.	Female.	Total.	Male.	Female.	Total.
Under 1 month .....	2	1	3	11	10	21
From 1 to 3 months .....	56	26	82	9	5	14
" 3 to 6 months .....	38	38	76	10	3	13
" 6 to 9 months .....	28	31	59	11	4	15
" 9 to 12 months .....	19	17	36	5	1	6
" 1 to 2 years .....	18	17	35	26	7	33
" 2 to 3 years .....	3	5	8	20	12	32
" 3 to 5 years .....	6	7	13	17	8	25
" 5 to 7 years .....	1	4	5	18	5	23
" 7 to 10 years .....	3	1	4	9	9	18
" 10 to 12 years .....	.....	.....	.....	1	8	9
" 12 to 15 years .....	.....	.....	.....	3	5	8
Over 15 years .....	.....	1	1	19	10	29
Total.....	174	148	322	159	87	246

TABLE 6.

SHOWING the Ages of the Admissions and Readmissions, Discharges, and Deaths, and also the Ages of all Patients under care, during the year 1898, in the Hospitals and Licensed Houses for the Insane.

	Admitted and readmitted.			Recovered			Removed, rehoved, &c			Died.			Patients under care during year 1898.		
	Male	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male	Female.	Total.	Male.	Female.	Total.
1 to 5 years .....	...	1	1	...	...	...	...	...	...	...	1	1	1	...	1
5 to 10 years .....	5	8	13	...	...	...	...	...	...	1	1	2	12	16	28
10 to 15 years .....	7	...	7	...	...	...	...	...	...	1	1	2	31	20	51
15 to 20 years .....	28	16	44	10	11	21	6	6	11	4	8	12	78	62	140
20 to 30 years .....	89	86	175	48	38	86	23	14	40	10	13	23	411	304	715
30 to 40 years .....	114	82	196	59	50	109	35	25	60	37	17	54	737	473	1,210
40 to 50 years .....	90	57	147	30	22	52	30	9	39	34	15	49	678	408	1,086
50 to 60 years .....	51	31	82	17	14	31	12	5	17	24	14	38	518	362	880
60 to 70 years .....	29	20	49	6	8	14	6	3	9	23	11	34	335	175	510
70 to 80 years .....	12	2	14	4	3	7	4	3	7	16	3	19	105	57	162
80 to 90 years .....	1	...	1	...	2	2	...	...	...	9	3	12	19	11	30
90 and upwards .....	...	1	1	...	...	...	...	1	1	...	...	...	1	2	3
Total.....	426	304	730	174	148	322	119	65	184	159	87	246	2,926	1,890	4,816

TABLE 7.

SHOWING Conditions as to Marriage in those admitted and readmitted, and those under care in the Hospitals and Licensed Houses for the Insane during the year 1898.

	Admissions and readmissions.			Under care during the year 1898.		
	Male.	Female.	Total.	Male.	Female.	Total.
Single .....	242	113	355	1,988	813	2,801
Married .....	152	151	303	607	793	1,400
Widowed.....	16	26	42	120	202	322
Unascertained.....	16	14	30	211	82	293
Total .....	426	304	730	2,926	1,890	4,816

TABLE 8.

SHOWING the Religious Professions of those admitted and readmitted, and those under care in the Hospitals and Licensed Houses for the Insane during the year 1898.

Religious Profession.	Admissions and readmissions.			Under care during the year 1898.		
	Male.	Female.	Total.	Male.	Female.	Total.
Protestant—						
Church of England .....	200	146	346	1,279	778	2,057
Presbyterian .....	37	28	65	213	131	344
Wesleyan .....	29	10	39	120	74	194
Lutheran .....	8	...	8	75	12	87
Other Protestant Denominations .....	7	16	23	77	70	147
Roman Catholic .....	127	103	230	968	780	1,748
Pagan .....	2	.....	2	67	.....	67
Hebrew .....	3	1	4	23	8	31
Mahomedan .....	1	.....	1	8	.....	8
Unascertained.....	12	.....	12	96	37	133
Total.....	426	304	730	2,926	1,890	4,816

TABLE 9.

SHOWING the Native Countries of those admitted and readmitted, and those under care in the Hospitals and Licensed Houses for the Insane during the year 1898.

	Admitted and readmitted during 1898.			Under care during 1898.		
	Male.	Female.	Total.	Male.	Female.	Total.
British Colonies { New South Wales .....	163	151	314	1,010	853	1,863
{ Other Colonies .....	40	27	67	183	95	278
Great Britain... { England .....	101	53	154	668	313	981
{ Scotland .....	20	12	32	137	84	221
{ Ireland.....	58	54	112	545	475	1,020
France .....	3	...	3	19	5	24
Germany .....	8	.....	8	90	21	111
China .....	1	.....	1	76	.....	76
Other Countries .....	32	7	39	198	44	242
Total.....	426	304	730	2,926	1,890	4,816

TABLE 10.

SHOWING the Form of Mental Disorder in the Admissions, Readmissions, Recoveries, and Deaths of the year 1898, and of Inmates on 31st December, 1898.

Form of Mental Disorder.	Admissions and readmissions.			Recoveries.			Deaths.			Remaining in Hospital 31st Dec., 1898.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<b>CONGENITAL OR INFANTILE MENTAL DEFICIENCY—</b>												
(a) with Epilepsy .....	6	5	11	...	...	...	7	4	11	81	64	145
(b) without Epilepsy .....	26	13	39	1	3	4	7	16	23	256	160	416
Epileptic Insanity .....	13	12	25	7	1	8	10	5	15	93	68	161
General Paralysis of the Insane .....	43	1	44	1	...	1	33	2	35	84	7	91
<b>MANIA—</b>												
Acute .....	47	53	100	34	34	68	7	8	15	161	68	169
Chronic .....	3	5	8	1	2	3	8	12	20	211	202	413
Recurrent .....	19	13	32	11	3	14	1	6	7	61	58	119
Delusional .....	100	64	164	47	24	71	31	3	34	637	274	911
A Potu .....	16	3	19	21	3	24	...	...	...	13	6	19
Puerperal .....	...	14	14	...	11	11	...	2	2	...	33	33
Senile .....	8	7	15	1	1	2	4	2	6	13	13	26
<b>MELANCHOLIA—</b>												
Acute .....	14	15	29	2	6	8	3	2	5	30	31	61
Chronic .....	...	...	...	...	...	...	...	1	1	75	58	133
Recurrent .....	3	2	5	...	...	...	...	...	...	11	18	29
Delusional .....	70	72	142	39	50	89	10	12	22	343	300	643
Puerperal .....	...	...	...	1	1	2	...	...	...	...	6	6
Senile .....	3	5	8	1	1	2	2	1	3	7	9	16
A Potu .....	1	1	2	1	...	1	...	...	...	3	1	4
<b>DEMENTIA—</b>												
Primary .....	14	3	17	5	3	8	5	1	6	114	40	154
Secondary .....	17	7	24	...	2	2	11	3	14	235	121	356
Senile .....	17	7	24	2	3	5	17	7	24	95	47	142
Organic (i.e., from Tumours, coarse Brain Disease, &c.)	6	2	8	...	...	...	3	...	3	11	6	17
Total .....	426	304	730	174	148	322	159	87	246	2474	1500	4064

TABLE 11.

SHOWING the Occupations of those Admitted and Readmitted, and those under Care, in the Hospitals and Licensed Houses for the Insane, during the year 1898.

Occupations.	Admitted and readmitted during 1898.			Under care during 1898.					
	Male.	Female.	Total.	Male.	Female.	Total.			
Professional .....	Clergy, military and naval officers, members of the medical and legal professions, architects, artists, authors, civil engineers, surveyors, &c. ....			16	...	16	64	1	65
Commercial .....	Bankers, merchants, accountants, clerks, shopkeepers, shopmen, &c. ....			53	...	53	198	...	198
Agricultural and pastoral .....	Farmers, squatters, graziers, free selectors, &c. ....			19	1	20	169	2	171
Mechanics, tradesmen, &c., actively employed, and in out-door avocations .....	Blacksmiths, carpenters, engine-fitters, firemen, sawyers, painters, police, &c. ....			45	...	45	321	...	321
Mechanics, tradesmen, &c., employed at sedentary or indoor occupations .....	Bootmakers, bookbinders, compositors, weavers, tailors, &c. ....			25	...	25	177	...	177
Domestic service .....	Waiters, cooks, servants, &c. ....			21	1	22	86	30	116
Miners, labourers, seamen, shepherds, &c. ....	...			205	...	205	1,530	...	1,530
Educational and higher domestic duties .....	Governesses, teachers, housekeepers, trained nurses, &c. ....			1	17	18	11	66	77
Ordinary domestic work .....	Servants, charwomen, laundresses, &c. ....			...	79	79	...	503	503
Commercial — actively employed .....	Shopkeepers, saleswomen, &c. ....			...	7	7	...	68	68
Commercial — employed in sedentary occupations .....	Tailoresses, needlewomen, machinists, bookbinders, factory workers, &c. ....			...	10	10	...	67	67
Wives of professional men .....	Clergy, military and naval officers, members of the medical and legal professions, architects, artists, authors, civil engineers, surveyors, &c. ....			...	7	7	...	21	21
Wives of commercial men .....	Bankers, merchants, accountants, clerks, shopkeepers, shopmen, &c. ....			...	11	11	...	54	54
Wives of tradesmen, mechanics, &c. ....	Blacksmiths, carpenters, engine-fitters, firemen, sawyers, painters, police, bootmakers, bookbinders, compositors, weavers, tailors, &c. ....			...	38	38	...	105	105
Wives of agricultural and pastoral men .....	Farmers, squatters, graziers, free selectors, &c. ....			...	13	13	...	92	92
Wives of .....	Miners, labourers, seamen, shepherds, &c. ....			...	43	43	...	217	217
No occupation .....	...			28	28	56	234	350	584
Unknown .....	...			13	49	62	136	275	411
Total .....	426	304	730	2,026	1,890	4,816			

TABLE 12.

SHOWING the Admissions, Re-admissions, Discharges, and Deaths, with the Mean Annual Mortality, and the proportion of Recoveries, &c., per cent. in the various Institutions for the Insane for the year 1898.

Institutions.	Remaining on 31st December, 1897.			Admitted during year 1898.									Total admitted, readmitted, transferred during year 1898.			Total under care during year 1898.			Discharged during year 1898.											Total discharged or died, &c., during year 1898.			Remaining in hospital, 31st December, 1898.			Average number resident, 1898.			Percentage of recoveries on admissions and readmissions, 1898.			Percentage of patients relieved on admissions and readmissions, 1898.			Percentage of deaths on the average number resident, 1898.															
				Admitted for the first time.			Re-admitted.			Transferred.									Recovered.	Relieved.	Transferred.	Escaped, and not re-captured within 28 days.	Died.																																					
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.																		
Callan Park ..	448	399	847	141	123	264	23	28	51	3	6	9	167	157	324	615	556	1171	75	74	149	9	18	27	34	20	54	5	5	10	31	31	62	157	143	300	458	413	871	426	362	788	45	73	49	00	47	30	5	48	11	92	8	57	7	98	8	56	8	24
Gladesville ...	514	324	838	86	54	140	21	20	41	5	10	15	112	84	196	626	408	1034	53	42	95	2	3	5	21	9	30	27	10	37	103	64	167	523	344	867	506	312	818	49	53	56	75	52	48	1	86	4	05	2	76	5	33	3	20	4	52			
Parramatta (Free).	686	375	1061	80	38	118	9	5	14	16	1	17	105	44	149	791	419	1210	27	13	40	1	1	23	8	31	4	4	61	15	76	115	37	152	676	382	1058	682	370	1052	30	33	30	23	30	30	...	2	32	0	07	8	94	4	05	7	22			
Parramatta (Criminal).	46	8	54	14	...	14	...	...	...	...	...	14	...	14	60	8	68	3	...	3	...	12	12	...	...	...	15	...	15	45	8	53	47	8	55	21	42	...	21	42	...	...	...	...	...	...	...	...	...	...	...	...	...	...						
Kenmore . . . . .	200	107	307	34	20	54	...	...	35	15	50	69	35	104	269	142	411	11	14	25	2	...	2	2	...	2	1	...	3	5	8	19	19	38	250	123	373	233	114	347	32	35	70	00	46	29	5	88	...	3	70	1	29	4	38	2	30			
Rydalmore ...	351	151	502	...	...	...	...	...	32	6	38	32	6	38	333	157	540	3	...	3	...	2	2	...	4	...	...	26	6	32	31	8	39	352	149	501	351	152	503	...	...	...	...	...	...	...	...	7	47	3	75	6	38							
Newcastle ...	145	152	297	15	9	24	...	2	2	3	2	5	18	13	31	163	165	328	...	...	2	2	...	...	...	...	...	8	19	27	8	21	29	155	144	299	153	152	305	...	...	...	...	...	...	18	18	7	69	5	23	12	50	8	85					
Cooks' River..	15	22	37	2	1	3	1	...	1	1	...	1	4	1	5	19	23	42	2	3	5	1	1	2	1	...	1	1	1	4	5	9	15	18	33	15	19	34	66	66	300	00	125	00	33	33	100	00	50	00	...	5	26	2	94					
Pictou .....	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
Ryde.....	...	7	7	...	3	3	...	1	1	...	...	4	4	...	11	11	...	2	2	...	...	1	1	...	...	...	...	...	3	3	...	8	8	...	7	7	...	50	00	50	00	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Total ....	2405	1546	3951	372	248	620	54	56	110	95	40	135	521	344	865	2926	1890	4816	174	148	322	14	25	39	95	40	135	10	10	159	87	246	452	300	752	2474	1590	4064	2413	1497	3910	40	84	48	68	44	10	3	28	8	22	5	34	6	58	5	81	6	29	

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*Admissions.*

The admissions have been 730, and give a ratio of "occurring insanity," in proportion to the general population, of 1 in 1,844. Of the admissions, 110 were readmissions, having been under treatment in the same hospital at some previous time.

The number of admissions from places beyond the Colony, reported under section 140 of the Lunacy Act, was 5. In these cases the Master-in-Lunacy took steps to recover the cost of maintenance from the persons made liable by the Statute. An additional 6 were admitted to the Reception House on remand, but were discharged in a few days. A total of 11 thus comprises all recent arrivals in the Colony who were insane, or who were suspected of being so.

Among the admissions was a large number of people whose main ailment was old age and its accompanying dementia. Many of these came from the Benevolent Asylums, where their mental affection made them a source of annoyance or danger to the other inmates, and where, perhaps, facilities for their care were absent. As these patients must, in the nature of the case, be incurable, they diminish the recovery rate of the hospitals, and help to keep the wards full, to the detriment of curable and hopeful cases.

The admission papers, in a number of cases, were defective, and required amendment. In most cases these errors and omissions were the result of carelessness in filling up the forms, and want of attention to the marginal instructions printed on them. Out of the 730 received, 130 had to be returned for amendment, and the great majority of these had passed through the hands of a Clerk of Petty Sessions or a Magistrate. It is at the same time satisfactory to record that most of the defects were technical, and in only a few cases did the medical certificates contain insufficient evidence of insanity.

*Transfers.*

The following table shows the admissions by transfer from one Institution to another during the year:—

RETURN showing Transfers for year 1898.

Transferred from—	Transferred to—																										
	Gladesville.			Parramatta (Free).			Parramatta (Criminal).			Callan Park.			Newcastle.			Rydalmere.			Kenmore.			Cook's River.			Ryde.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
Gladesville .....										1	3	4	1	1	2	10	5	15	9	...	9	...	...	...	...		
Parramatta (Free)...	1	4	5								3	3				21	1	22	1	...	1	...	...	...	...		
Parramatta (Criminal)...				12		12																					
Callan Park .....	1	3	4	3	1	4							2	1	3	1	...	1	26	15	41	1	...	1	...		
Newcastle .....																											
Rydalmere .....	2	2	4																								
Kenmore .....	1	...	1																								
Cook's River .....										1	...	1															
Ryde .....		1	1																								
Total .....	6	10	15	15	1	16				3	6	9	3	2	5	32	6	38	36	15	51	1	...	1	...		

*Discharges.*

The number of those discharged recovered was 322, and shows a percentage on the admissions and readmissions of 44.10, which is somewhat over the average for the previous ten years. In addition, 39 patients were discharged relieved. These were mostly taken care of by their friends when no further improvement was to be expected from hospital treatment.

*Leave of Absence.*

Under the provisions of the Lunacy Act a large number of patients was removed from the Hospitals on leave of absence before being finally discharged. Convalescents were in this way taken home at an earlier period than would have been expedient were it necessary to obtain fresh papers in case of a relapse, and cases of recurring insanity were enabled to spend the intervals between their attacks among their friends.

The following return gives particulars as to leave of absence during the year:—

RETURN showing particulars as to Leave of Absence during the year 1898.

Institution.	Remaining on leave 31st December, 1897.			Number granted leave during the year 1898.			Discharged recovered.			Returned to Hospital.			Died whilst on leave.			Remaining on leave 31st December, 1898.		
	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
	Gladesville .....	11	22	33	25	36	61	8	16	24	13	15	28	1	...	1	14	27
Parramatta .....	5	8	13	15	23	38	5	10	15	5	12	17	1	...	1	9	9	18
Callan Park .....	14	32	46	29	52	81	17	33	50	9	16	25	1	1	2	16	34	50
Newcastle .....	...	1	1	3	2	5	...	1	1	1	1	2	...	...	...	...	1	3
Rydalmere .....	2	1	3	1	1	2	2	...	2	1	1	2	...	...	...	...	1	1
Kenmore .....	2	7	9	7	14	21	5	10	15	1	6	7	...	...	...	3	5	8
Cook's River .....	1	3	4	1	...	1	1	2	3	...	1	1	...	...	...	1	...	1
Ryde .....	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Total .....	35	75	110	81	128	209	38	72	110	30	52	82	3	1	4	45	78	123



*Escapes.*

The number of escapes was 47. In the majority of these the absence was of less duration than a day, but 10 remained at large when the time allowed by statute for their recapture had expired. Escapes mostly occur from among the convalescents and those quiet and harmless patients who are allowed more or less liberty in and beyond the hospital grounds.

*Accidents.*

During the year one fatal accident occurred, the suicide by drowning of a male patient at Kenmore. The patient had been for years a quiet chronic, and was employed about the grounds mostly in work by himself. There had been no reason to suspect a suicidal tendency, or to take special precautions against it, and the case affords another illustration of the fact that it is not always the most demonstrative in their threats of suicide who succeed in the attempt.

The other accidents were mostly fractures of bones in the limbs by accidental falls, or by interference by a fellow-patient in the excitement of mania; 5 were of bones of the leg, 4 of the arm, 1 of a rib, and 1 of the collar-bone. Two women suffered injuries to arm and finger respectively from laundry machinery, and one patient sustained a scalp wound and linear fracture of the skull from throwing himself from a height with suicidal intent, but recovered without untoward symptoms.

*Deaths.*

The number of deaths was 246, and, calculated on the average number resident, gives a percentage of 6.29—the rate for men being 6.58, and for women 5.81. This rate is slightly below the average for the last ten years, which is 6.54.

In Table IV the causes of death are set forth in detail. It will be seen that the chief causes were diseases of the brain, and of these general paralysis was responsible for by far the largest number.

*Need for additional accommodation.*

At the close of the year there were 4,022 patients in the various hospitals for the insane, or 151 over the numbers they could properly accommodate. During 1899 a further increase must be expected of, say, 108, that being the average annual increase for the last twenty years. For these 259, room will be found at Kenmore Hospital, where wards for 305 patients are either just completed or are in process of erection. The last of these new buildings will not, however, be ready for occupation till the close of the year 1900, by which time a further increase of 108 will have occurred, and there will again be an overcrowding to the extent of 62. It is thus evident that immediate steps should be taken to provide for the future, and I would recommend that the land reserved for the erection of a hospital for the insane at Orange be utilised. With a hospital at Orange, patients from the western districts of the Colony would incur less expense and difficulty than is at present the case when they have to travel to Parramatta. The overcrowding in the latter Institution, too, would be to a great extent relieved.

It is also very desirable to increase the accommodation for scientific work at the hospitals, particularly in the direction of establishing a pathological department, similar to those already in operation at Claybury, England, under the Asylums Committee of the London County Council; at New York, under the State Commission in Lunacy; and at the Scottish Asylums Laboratory in Edinburgh.

*Receipts and Expenditure.*

The receipts of the Department from all sources amounted to £16,436 7s. 1d., and were made up as follows:—Collected by the Master in Lunacy towards the maintenance of patients in hospitals, £15,612 3s. 2d.; paid by the Imperial Treasury for the maintenance of convict patients, £133 18s.; received from sale of fat and old stores, £600 3s. 5d.; and from rent of land, £60 2s. 6d. The details are shown in the following return:—

TABLE showing Total Receipts on account of Institutions for the Insane during the year 1898.

Name of Institution.	Collected for maintenance of Patients.	Paid from Imperial Treasury for maintenance of Patients.	Sale of Fat and old Stores	Rent of Land.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Hospital for the Insane, Gladesville.....	4,427 0 8	.....	229 18 3	.....	4,656 18 11
Do Parramatta .....	2,001 7 1	89 5 4	230 8 9	.....	2,321 1 2
Do Callan Park .....	6,387 16 0	.....	94 0 11	.....	6,481 17 8
Do Newcastle .....	888 10 1	44 12 8	20 0 2	.....	953 2 11
Do Rydalmere.....	1,293 16 1	.....	25 15 4	.....	1,319 11 5
Do Kenmore .....	571 11 8	.....	.....	.....	571 11 8
Do South Australia .....	62 13 1	.....	.....	.....	62 13 1
Reception House for the Insane, Darlinghurst .....	9 7 9	.....	.....	.....	9 7 9
Inspector-General's Office .....	.....	.....	.....	60 2 6	60 2 6
Total .....	£ 15,612 3 2	133 18 0	600 3 5	60 2 6	16,436 7 1

The total expenditure amounted to £115,418 13s. 3d., and was made up as follows:—Maintenance of patients in Hospitals for the Insane, £111,084 12s. 4d.; maintenance of patients in the Reception House at Darlinghurst, £1,426 3s. 10d.; maintenance of patients in South Australian Hospitals, £447 6s. 6d.; and general expenses—including cost of Inspector-General's Office, payments to official visitors, maintenance of steam-launch, &c.—£2,460 10s. 7d.

The average weekly cost per patient was 11s. 0½d., without deducting collections, and 9s. 5d. when these were deducted. This is somewhat higher than during the last four or five years, but below the average for ten years. As pointed out in previous reports, the cost has now been brought down to the lowest possible, commensurate with the safety of the patients and their recovery.

The following returns show—(1st) the average weekly cost of the hospitals for the last ten years, 1889 to 1898 inclusive; (2nd) the weekly cost at each hospital from 1870 to 1898 inclusive; and (3rd) the particulars of expenditure at the hospitals during the year 1898.

RETURN

RETURN showing Weekly Cost for Maintenance in Hospitals for the Insane for ten years, 1889 to 1898 inclusive.

Year.	Without deducting Collections.		Deducting Collections.	
	£	s. d.	£	s. d.
1889.....	0 12	9½	0 11	3½
1890.....	0 11	11½	0 10	4½
1891.....	0 12	1½	0 10	5½
1892.....	0 11	11½	0 10	2
1893.....	0 11	2½	0 9	6½
1894.....	0 10	7	0 8	11
1895.....	0 10	11½	0 9	4
1896.....	0 10	5½	0 9	0½
1897.....	0 10	8½	0 9	3
1898.....	0 11	0½	0 9	5
Average for ten years .....	0 11	4½	0 9	9½

TABLE showing Weekly Cost of Maintenance at Hospitals for the Insane during the years 1870 to 1898, inclusive.

Year.	Gladesville.		Parramatta.		Newcastle.		Callan Park.		Rydalmere.		Kenmore.	
	Collections deducted.	Collections not deducted.	Collections deducted.	Collections not deducted.	Collections deducted.	Collections not deducted.	Collections deducted.	Collections not deducted.	Collections deducted.	Collections not deducted.	Collections deducted.	Collections not deducted.
1870.....	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1871.....	0 12 6	0 12 11	0 9 0	0 9 1½	0 16 11	0 16 11	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6
1872.....	0 12 8	0 13 2	0 9 3	0 9 4	0 16 0	0 15 1	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6
1873.....	0 12 7	0 13 0	0 11 4½	0 12 5	0 16 0	0 15 1	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6
1874.....	0 12 2½	0 12 10½	0 12 3	0 12 4½	0 13 5½	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6
1875.....	0 12 3	0 12 6½	0 11 10½	0 11 10½	0 14 1½	0 14 3	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6
1876.....	0 12 5	0 13 7	0 10 0	0 11 2½	0 14 1	0 13 4½	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6
1877.....	0 12 5	0 13 1	0 11 8½	0 11 10½	0 14 1½	0 14 7	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6
1878.....	0 11 4½	0 12 3½	0 12 9½	0 12 10½	0 13 3½	0 14 6½	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6	0 13 6
1879.....	0 11 2	0 12 1½	0 11 2½	0 11 7	0 12 9½	0 13 1½	* 2 11½	* 1 3 10½	0 13 6	0 13 6	0 13 6	0 13 6
1880.....	0 9 5	0 11 2½	0 10 5½	0 11 1½	0 11 5	0 12 0	0 13 3½	0 13 11½	0 13 6	0 13 6	0 13 6	0 13 6
1881.....	0 10 1½	0 12 2½	0 10 2½	0 10 9	0 10 9½	0 11 8	0 12 10½	0 13 8½	0 13 6	0 13 6	0 13 6	0 13 6
1882.....	0 10 11	0 13 0½	0 12 6	0 13 0½	0 10 10	0 11 5½	0 14 2½	0 15 2½	0 13 6	0 13 6	0 13 6	0 13 6
1883.....	0 10 4½	0 12 2½	0 10 10½	0 11 4½	0 11 3½	0 12 0	0 16 4	0 17 3½	0 13 6	0 13 6	0 13 6	0 13 6
1884.....	0 10 4½	0 12 6½	0 9 11½	0 10 7	0 10 11	0 12 0	0 17 2½	0 18 8½	0 13 6	0 13 6	0 13 6	0 13 6
1885.....	0 10 1½	0 13 2	0 9 10½	0 10 7½	0 10 11½	0 12 1	0 15 9	0 17 4	0 13 6	0 13 6	0 13 6	0 13 6
1886.....	0 11 8	0 13 9½	0 10 2	0 10 11½	0 10 7½	0 11 6½	0 12 5½	0 14 4½	0 13 6	0 13 6	0 13 6	0 13 6
1887.....	0 11 3½	0 13 1½	0 9 7½	0 10 8	0 12 0	0 12 9½	0 10 5½	0 12 4½	0 13 6	0 13 6	0 13 6	0 13 6
1888.....	0 9 7½	0 11 10½	0 10 0	0 11 1	0 11 2	0 11 11	0 10 7½	0 12 2½	0 13 6	0 13 6	0 13 6	0 13 6
1889.....	0 12 1	0 14 8	0 10 9½	0 11 4	0 11 10½	0 12 3½	0 10 11½	0 12 11½	0 13 6	0 13 6	0 13 6	0 13 6
1890.....	0 10 9½	0 13 0	0 10 1½	0 10 11	0 10 2	0 11 2½	0 10 9½	0 12 4½	0 13 6	0 13 6	0 13 6	0 13 6
1891.....	0 10 9½	0 12 11½	0 9 10½	0 10 9	0 9 10½	0 11 2½	0 10 1½	0 12 8½	* 0 15 4½	* 0 15 4½	0 13 6	0 13 6
1892.....	0 10 8	0 12 11	0 9 4	0 10 3	0 9 3½	0 10 11½	0 10 2½	0 13 0½	0 13 6	0 13 6	0 13 6	0 13 6
1893.....	0 10 2½	0 12 4	0 8 8½	0 9 7½	0 9 2½	0 10 6	0 9 10½	0 12 7½	0 9 9	0 10 5½	0 13 6	0 13 6
1894.....	0 9 6	0 11 5½	0 8 7	0 9 5½	0 8 1½	0 9 2½	0 8 7½	0 11 5	0 10 11	0 11 0	0 13 6	0 13 6
1895.....	0 9 10½	0 11 10½	0 8 7½	0 9 6½	* 7 10½	0 9 0	0 9 2½	0 12 0½	0 8 10½	0 9 9	* 0 19 1½	* 0 19 4½
1896.....	0 9 6½	0 11 5½	0 8 8½	0 9 4½	0 7 6½	0 8 7½	0 8 10½	0 11 6½	0 8 11½	0 8 11½	0 14 7½	0 15 0
1897.....	0 9 0½	0 11 7	0 8 11	0 9 7½	0 7 5½	0 8 6½	0 8 4½	0 11 2	0 8 3½	0 9 4	0 15 9½	0 16 2½
1898.....	0 9 9½	0 12 0	0 8 9	0 9 6	0 7 12½	0 9 1½	0 9 7½	0 12 8½	0 8 7½	0 9 7½	0 12 8½	0 13 4

\* First year, and including cost of stores and outfit. † Opening of new Hospital. ‡ Opening of new wards for women.

TABLE showing Annual Cost of Patients in Hospitals for the Insane during the year 1898.

Institution.	Total number under care.	Average number resident.	Total cost.	Amount of collections.	Total annual cost per Patient, without deducting collections.	Annual cost per Patient, deducting collections.
Hospital for the Insane, Gladesville...	1,034	818	£ s. d. 25,529 3 9	£ s. d. 4,656 18 11	£ s. d. 31 4 2	£ s. d. 25 10 3½
Do Parramatta...	1,273	1,107	27,546 9 8	2,321 1 2	24 15 9½	22 15 8½
Do Callan Park...	1,171	788	26,164 8 0	6,481 17 8	33 4 0½	24 19 6½
Do Newcastle...	323	305	7,244 6 9	953 2 11	23 15 0½	20 12 6½
Do Rydalmere...	540	503	12,559 13 10	1,319 11 5	24 19 4½	22 6 10½
Do Kenmore...	411	347	12,040 10 4	571 11 8	34 13 11½	33 1 0½
	4,762	3,868	111,084 13 4	16,304 3 9	28 14 4½	24 10 0½

RETURN showing the Average Annual Cost of Maintenance per Patient at the Hospitals for the Insane for the year 1898.

Name of Hospital.	Daily average number of patients resident	Salaries.	Provisions, extras, medical comforts, and forage.	Stimulants—Wines, spirits, beer, &c.	Medicines and surgical instruments.	Stores, including clothing, bedding, and materials for manufacture.	Fuel, light, and water.	Incidental and miscellaneous expenses, including library, amusements, &c.	Total expenditure.	Collections for maintenance, &c.	Annual cost for maintenance per patient.	Annual cost per patient, deducting collections for maintenance, &c.
Gladesville...	818	£ s. d. 13 0 6½	£ s. d. 10 17 11½	£ s. d. 0 1 8½	£ s. d. 0 5 11½	£ s. d. 4 2 5	£ s. d. 1 15 11	£ s. d. 0 19 7½	£ s. d. 25,529 3 9	£ s. d. 4,656 18 11	£ s. d. 31 4 2	£ s. d. 25 10 3½
Parramatta...	1,107	10 2 7½	8 3 3½	0 1 2½	0 2 7½	3 3 11	1 7 0½	0 15 1½	27,546 9 8	2,321 1 2	24 15 9½	22 15 8½
Callan Park...	788	12 16 17	11 18 4	0 2 10½	0 6 7½	3 18 4	1 19 2½	1 7 0½	26,164 8 0	6,481 17 8	33 4 0½	24 19 6½
Newcastle...	305	10 4 6	6 12 3½	0 0 6½	0 3 3	3 17 5½	1 12 1½	1 4 10½	7,244 6 9	953 2 11	23 15 0½	20 12 6½
Rydalmere...	503	10 8 11	7 15 9½	0 4 4	0 4 3½	3 13 10½	1 9 2½	0 17 11½	12,559 13 10	1,319 11 5	24 19 4½	22 6 10½
Kenmore...	347	15 8 6½	9 3 7½	0 0 5½	0 5 3½	6 8 10½	1 11 8	1 15 7½	12,040 10 4	571 11 8	34 13 11½	33 1 0½



*The Observation Wards at H.M. Gaols, Darlinghurst and Parramatta.*

The statistics of these wards are as follows:—There were at the ward at Darlinghurst on December 31, 1897, 11 inmates, and 29 were received during the year, making 40 under care; 23 were discharged of sound mind, 3 were sent to Hospitals for the Insane, 1 died, and 13 remained at the close of the year.

In addition to these inmates, for whom the ward was specially set apart, 135 other prisoners were for short periods inmates, the majority of these being cases suffering from temporary mental symptoms due to alcohol, whilst serving sentences of a few days, or whilst under remand.

At the ward at Parramatta there were on December 31, 1897, 12 inmates, and 25 were received during the year, making 37 under observation. Of these, 20 were discharged as of sound mind, 3 were sent to Hospitals for the Insane, 2 were discharged at Police Court, 2 were transferred to the Observation Ward at Darlinghurst, and 10 remained at the close of the year. Into this ward, also, a number of similar cases to those received at Darlinghurst was admitted, the total number of these being 32.

The Lunacy Act provides that these wards should be visited by the Inspector-General of the Insane, and special visits of inspection were paid to the ward at Darlinghurst on January 28, March 10, May 12, June 10, August 4, October 7, and December 2 and 14, and to the ward at Parramatta on January 20, May 31, July 5, September 28, and December 8. The wards have also been visited at other times to see individual prisoners, or at the request of the visiting medical officers. At the visits of inspection care has been taken to see and speak to every prisoner, and to inquire into the circumstances of his case, as well as to make a careful examination into the general management of the ward.

The Comptroller-General of Prisons has courteously furnished the following returns, showing the general statistics of the two wards for the year 1898:—

RETURN showing the number of Persons received into the Observation Ward, H.M. Gaol, Darlinghurst, during the year 1898, the places whence received, and their disposal.

Whence received.	Remaining on 31st December, 1897.			Received.			Discharged.												Transferred to Observation Ward, Parramatta.			Remaining on 31st December, 1898.				
							Of Sound Mind.			To Hospitals for the Insane.			To Police Courts.			Died.										
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.		
<b>H.M. Gaols—</b>																										
Darlinghurst	7	...	7	13	...	13	13	...	13	3	...	3	...	...	...	...	...	...	...	...	...	...	...	4	...	4
Maitland	1	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Goulburn	1	...	1	1	...	1	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Broken Hill	1	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bathurst	1	...	1	4	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	5
Tamworth	...	...	...	2	...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Albury	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wollongong	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mudgee	...	...	...	2	...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Biloela	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Young	...	...	...	2	...	2	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Parramatta	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
<b>Total</b>	<b>11</b>	<b>...</b>	<b>11</b>	<b>29</b>	<b>...</b>	<b>29</b>	<b>23</b>	<b>...</b>	<b>23</b>	<b>3</b>	<b>...</b>	<b>3</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>13</b>	<b>...</b>	<b>13</b>
Awaiting Trial	Supreme Court, Sydney																									
	Quarter Sessions																									
Acquitted on ground of Insanity, and awaiting Governor's pleasure																										
From Police Courts	Under Sentence																									
	On Remand																									
<b>Total</b>	<b>19</b>	<b>...</b>	<b>19</b>	<b>126</b>	<b>30</b>	<b>156</b>	<b>53</b>	<b>...</b>	<b>53</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>73</b>	<b>29</b>	<b>102</b>	<b>1</b>	<b>...</b>	<b>1</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>15</b>	<b>...</b>	<b>15</b>

RETURN showing the number of Persons received into the Observation Ward, H.M. Gaol, Parramatta, during the year 1898, and the places whence received, and their disposal.

Whence received.	Remaining on 31st December, 1897.			Received.			Discharged.															Remaining 31st December, 1898.					
							Of Sound Mind.			To Hospitals for Insane.			To Police Courts.			Died.			To Observation Ward, Darlinghurst.								
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.			
H.M. Gaols—																											
Admitted under the provisions of section 63 of the Lunacy Act, and section 4 of the Lunacy Act Amendment Act, from—																											
{ Darlinghurst	2	...	2	1	...	1	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
{ Parramatta	10	...	10	20	...	20	16	...	16	3	...	3	2	...	2	...	...	...	1	...	1	8	...	8	...	...	8
{ Bathurst	...	...	...	2	...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1
{ Walgett	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Tamworth	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	12	...	12	25	...	25	20	...	20	3	...	3	2	...	2	...	...	...	2	...	2	10	...	10	...	...	10
Awaiting Trial																											
{ Supreme Court	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Quarter Sessions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acquitted on grounds of Insanity, and awaiting Governor's pleasure	1	...	1	2	...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	2
From Police Courts																											
{ Under Sentence	1	...	1	7	...	7	7	...	7	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ On Remand	...	...	...	21	...	21	...	...	...	...	...	...	21	...	21	...	...	...	...	...	...	...	...	...	...	...	...
Total	14	...	14	55	...	55	28	...	28	4	...	4	23	...	23	...	...	...	2	...	2	12	...	12	...	...	12

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## STATE CHILDREN RELIEF BOARD.

## REPORT

OF THE

PRESIDENT, THE HON. SIR ARTHUR RENWICK, K<sub>T</sub>., M.L.C.,  
&c., &c., &c.,

FOR THE

YEAR ENDING 5 APRIL, 1899.

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Presented to Parliament, pursuant to Act 44 Vic. No. 24, sec. 12.

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*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

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PAST AND PRESENT MEMBERS  
OF  
THE STATE CHILDREN RELIEF BOARD,  
1881 TO 1899.

Name.	Date of Appointment.	Date of Retirement.
RENWICK, HON. SIR ARTHUR, Kt., M.D., M.L.C. (President).	19 April, 1881	Still in office.
GARRAN, MRS. ANDREW ... ..	19 April, 1881	Still in office.
<i>Lady Allen</i> ... ..	19 April, 1881	19 December, 1893.
<i>Jefferis, Mrs. Marian</i> ... ..	19 April, 1881	30 September, 1889.
<i>Stuart, Miss Mary</i> ... ..	19 April, 1881	4 October, 1884.
<i>Windeyer, Mrs. William (afterwards Lady Windeyer).</i>	19 April, 1881 6 December, 1889 (Re-appointed).	20 December, 1886. 26 February, 1897.
<i>Innes, Hon. Sir J. G. Long, Kt.</i> ... ..	19 April, 1881	20 October, 1882.
<i>Jennings, Lady</i> ... ..	30 September, 1881	27 November, 1888.
<i>Slattery, Thos. Michael</i> ... ..	20 October, 1882	8 July, 1892.
<i>Mackellar, Hon. C.K., M.B., C.M.</i> ..	20 October, 1882	23 October, 1885.
<i>Barry, Mrs. Louisa Victoria</i> ... ..	4 October, 1884	13 April, 1887.
TRICKETT, HON. W. J., M.L.C. ... ..	23 October, 1885	Still in office.
<i>Goodlet, Mrs. A. A.</i> ... ..	13 April, 1887	20 July, 1898.
MANNING, LADY ... ..	4 January, 1887	Still in office.
<i>Austin, Mrs. Fanny M.</i> ... ..	6 December, 1889	Died in April, 1894.
HEYDON, HON. L. F., M.L.C. ... ..	8 July, 1892	Still in office.
<i>McMillan, Mrs. W.</i> ... ..	19 December, 1893	10 April, 1899.
SLATTERY, MRS. T. M. ... ..	8 June, 1894	Still in office.
<i>Renwick, Lady</i> ... ..	26 February, 1897	30 January, 1899.
GRIMSHAW, MRS. ... ..	29 August, 1898	Still in office.
BARTON, MRS. EDMUND ... ..	30 January, 1899	Still in office.
STEPHEN, MRS. C. B. ... ..	23 May, 1899	Still in office.

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The President, State Children Relief Board, to The Chief  
Secretary.

Charitable Institutions of New South Wales,  
State Children Relief Board,  
Richmond-terrace, Sydney, 5 April, 1899.

Sir,

In compliance with the provisions of Section 12 of 44 Victoria No. 24, I have the honor to present to Parliament my Annual Report showing the operations of the various divisions of the State Children Relief Department during the year ended 5 April, 1899.

Upon reference to my previous reports it will be found that seventeen years ago I expressed the opinion that a thoroughly efficient system of management would not be secured until the whole of the children supported at the expense of the Government were placed under the control of a single agency.

I have, since then, consistently advocated the union of our auxiliary institutions under the control of one governing body; but they remain as separate in their administration and as hampered in their operations to-day as they were when a brief official experience first convinced me that the policy adopted in other colonies and elsewhere was, in every way, much more desirable than our own.

In this report I do not intend to make a lengthy reference to the merits of the boarding-out system as a social institution. Under well-organised supervision it is undoubtedly the most natural and best method of dealing with our dependent children; but it has never been claimed by its most enthusiastic supporters that it will prove effective in every instance. Nevertheless in this Colony no provision has yet been made to relieve the State Children Relief Board of the custody of children who require to be dealt with under the firm discipline and corrective treatment which our industrial and reformatory schools provide.

It does not follow that if a child is without a home, or if found in company with reputed thieves, or even if convicted of theft, that he is too steeped in vice to be amenable to home influences where the discipline is firmer and the surroundings are more cheerful and wholesome than he ever before experienced; nor is it to be expected that children supposed to be tractable will not occasionally be found vicious and incorrigible when tested under the boarding-out system. In dealing with rescued children whose dispositions are not thoroughly understood, experience teaches that mistakes are frequently made in first assigning the method of treatment to which they are to be subjected. No provision can be made to entirely prevent this. A test is the only solution, and an unrestricted system of exchange amongst the institutions providing varying methods of treatment is the only remedy. In America it is customary for experienced officials to attend the law courts and possess themselves of all important facts relating to each case, and consult with the magistrates as to the best disposition of the children. Under this system the number of mistakes made by injudicious commitment is materially reduced.

Unfortunately, however, for the welfare of the children of the State, no such provision is made in this Colony, consequently the number of wrongful commitments arising from time to time in the absence of this wise precaution becomes much more numerous than need be, a defect which renders the free interchange of children absolutely indispensable. But consultation before commitment is not the only safeguard established elsewhere for purposes of classification. It is  
very

very properly recognised that without an intimate knowledge of character there must remain a percentage of erroneous commitments, and to reduce this percentage to a minimum the responsible heads of the several institutions providing varying methods of treatment meet, after the child has been under observation for a time, and determine the action to be taken if the course of treatment to which the child has been subjected is found to be unreasonably lenient or unnecessarily severe. It would, obviously, be useless to hold such consultations here until our statutes were so amended that effect could be given to any recommendation that might be submitted if a transfer from one branch to another were found to be necessary.

If a child who should have been boarded-out be committed to an industrial school or a reformatory, the State Children Relief Act gives power to effect the transfer to the boarding-out system, and the Industrial Schools Act permits the elder lads to be apprenticed; but if a juvenile offender be sent to an industrial school, and reformatory treatment were found necessary, or *vice versa*, no transfer could be made, nor could an inmate of either of these institutions be legally sent to a hospital if the nature of the illness required the scientific skill of an expert. When the Carpenterian Reformatory was under the control of the Director of Charities, treatment in one of our metropolitan hospitals was prescribed for a patient likely to lose his eyesight; but the Crown Solicitor advised that it was illegal to make the transfer. In the interests of humanity the law was, I believe, broken in this instance; but it should certainly not be necessary to act unlawfully for such a purpose as this, and it must be admitted, if the act were illegal, that the law which so defines it should be promptly amended, so that our juvenile offenders may not suffer from the harsh provisions of our early legislation. Again, if, instead of a child being sent to an industrial or reformatory school, a course of treatment under the boarding-out system is first tested, then even the most vicious children cannot be removed to an industrial or reformatory school by the simple process of transfer; but each must be charged and committed, and it is very rarely that a master or mistress will come forward publicly in the law courts and assist the State Children Relief Board to secure this end.

In this Colony the Government has established two industrial schools and two reformatories: but their methods of admission are so defined by law that the free interchange of children cannot be secured no matter how desirable it may be to take advantage of the varying methods of treatment, each of which we recognise as necessary in the treatment of children who have to be dealt with as wards of the State, otherwise these institutions should cease to exist.

In South Australia and Victoria the boarding-out system and the industrial and reformatory schools are administered by one Department, and unrestricted facilities are afforded for testing children under any method of treatment that the Minister, acting on the advice of his responsible officers, deems to be most judicious.

In my opinion a similar policy should be introduced here; but I regret to have to admit, that although I have for many years consistently advocated this reform in our social institutions, my efforts have been unsuccessful. Certainly, steps were taken some years ago which led my Board to believe that the Government recognised the soundness of my contention; but the facilities were hastily and inconsiderately withdrawn, and the State Children Relief Board was left to encounter even greater difficulties than were hitherto experienced, owing to the expansion of the work having increased the number of troublesome children. I refer particularly to the removal of the Carpenterian Reformatory and the Shaftesbury Reformatory from the control of the Charities Department.

Some

Some years ago, when these institutions were placed under the Chief Secretary's Department, provision was made at the former for the treatment of troublesome lads and cripples in a home adjoining the reformatory, but under the control of the Superintendent. Subsequently, this auxiliary institution was removed to Newington Asylum for Destitute Women, many of whom are young, but suffer from neurotic diseases. This step was not a wise one, and for obvious reasons the State Children Relief Board has ceased to recognise its usefulness. At the same time the Shaftesbury Reformatory, then about to be closed, was placed under the control of the State Children Relief Board, to be used as an industrial home for troublesome girls, and for the reception of State children waiting to be boarded-out.

With the advantages these two institutions afforded, my Board's difficulties temporarily ceased, but both institutions were, some years since, transferred to the control of the Minister for Public Instruction without other provision having first been made for the treatment of State Children found unsuitable for private service; and since then the State Children Relief Board has been compelled to make the best of the limited resources at its disposal. Either the objectionable practice of admitting refractory girls into the cottage homes for invalid children has to be resorted to, or the Board is compelled to continually transfer such children from one private family to another until their periods of detention have expired, and they are left, unreclaimed, to follow whatever mode of life their inclinations suggest. I feel that it is not necessary for me to advance reasons to show that both these methods of treatment are bad, nor should I be again compelled to ask that the requisite facilities be afforded for the more suitable treatment for those unfortunate children who have been unsuccessfully dealt with under the boarding-out system. I do not, however, wish to convey the impression that the percentage of non-successful cases has reached unreasonable proportions. To draw such an inference from anything I have said or intend to say, would be to arrive at a conclusion unsupported by the official records of my Department. My Board has opened the door for the admission of troublesome children as wide as could reasonably be expected; but not so wide as could be done, with excellent results, were other avenues not closed to those who fail. The Board's inspectors and the police rescue annually a large number of neglected children, and with a daily average of 3,700 under control, from thirty to forty are exceptionally troublesome or vicious. These are the children who should be dealt with by transfer to industrial or reformatory schools.

The boarding-out system, wisely administered, should secure a form of life similar to that in which each child should have lived under more fortunate circumstances, and to which each must eventually return, when the period of detention in an industrial or reformatory school has expired. A less natural and more rigid course of training should not, therefore, be applied unless there is convincing evidence to show the necessity for it; but when that necessity does arise a course of probationary training should be promptly administered under the firm discipline and close observation of the skilled officials in charge of our industrial and reformatory schools.

My Board has had under consideration for some time an auxiliary method of treatment intended for robust but troublesome State boys for whom employment cannot be found. The scheme has recently been adopted and a Probationary Farm Home has been established at Cessnock, 20 miles from Maitland. The owner is a practical farmer, and the area of the estate is 150 acres; 10 acres are under grape-vines, and 10 are used for agricultural purposes. The owner has agreed to receive four lads, provide them with separate sleeping accommodation, and treat them in every respect as members of

of his family, on the understanding that he is paid 10s. a week each while receiving probationary training under his care. These lads will live and work under the supervision of himself and his two sons. The other conditions imposed are as follow:—

1. It is the duty of the master to find suitable employment for the lads (subject to the approval of the Board) when there is evidence of improvement in their behaviour sufficient to justify their discharge.
2. When the boys may be trusted, with safety, to accept temporary work at a daily rate, they are to be encouraged to do so, but must return to the probationary home at stated hours in the evening.
3. Wages earned in this way are to be paid by the employer to the master, and one-third of such earnings may be given by him to the boy for pocket money, but two-thirds must be remitted to the Board, to be held in trust for the lad until the period of detention expires.
4. The boys are to be encouraged to look for work locally, when eligible for discharge, as the Board is of opinion that better results can be secured in this way than by compelling lads of this class to perform duties that may not be congenial to their temperaments.
5. The reform is expected to result from moral suasion, and by inculcating a feeling of self reliance, and not from the severe application of corporal punishment.
6. Two additional lads will be admitted for each lad discharged from the probationary home, and for whom private service has been found with an approved employer, who has signed the indentures of apprenticeship. The maximum number of inmates to be limited to ten.

Theoretically the scheme has much to recommend it, and practical experience in Victoria, where a somewhat similar system has been tried, has amply justified its adoption. The chief factor essential to success is the judicious selection of the Farmer-in-Charge, and although my Board has reason to believe that a qualified man has been found, still it is premature to express an opinion without supporting evidence. Should, however, this auxiliary system justify its recognition as a necessary agency in the treatment of unmanageable State boys, it should prove equally effective when applied to juvenile offenders who have served a probationary term under more severe conditions, and to adopt it as a permanent policy is but to introduce another argument in favour of the united control of the minor wards of the State under a body vested with power to utilise whatever course of treatment it considers most advantageous in individual cases.

But the probationary farm home system has other advantages. It introduces a policy of decentralisation; it takes the boys at once into the agricultural districts; it secures wholesome surroundings, and a more natural form of life; it affords practical training, and offers to our farmers facilities for selecting their apprentices which cannot be conceded under existing conditions. No additional administrative cost is incurred, and as the boys will become wage-earners at the first opportunity, the term during which they will be maintained at the Government expense will be reduced to a minimum. The reward to the farmer in charge of the home is practically payment by results. It is to his advantage to increase his number of inmates, and this can only be done by finding masters (approved by the Board) willing to receive the lads reclaimed and sign the indentures of apprenticeship provided under the regulations of the State Children Relief Act.

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If a number of State children can be successfully dealt with in this way, the number who should otherwise be sent to industrial and reformatory schools will be materially reduced; but it does not follow that the restrictions placed upon the admissions to, and the discharges from, our social institutions should still continue; for it must be obvious that, owing to our unsatisfactory methods of classification, there should be a number of our juvenile offenders now under commitment who could be placed in probationary farm homes, boarded out at a cost of 5s. per week only (if under 14), or sent to service as apprentices at no cost to the Government if over that age. I am led to this conclusion from my official knowledge of the fact that the State Children Relief Board has already removed upwards of 500 children, under the age of 12, from our Industrial Schools, almost the whole of whom have turned out well; and from the published reports of the Superintendent of the "Sobraon," which show that upwards of 94 per cent. of the boys apprenticed by him have been reported of good character. Most of these children have received probationary treatment in these institutions; but the question arises,—Should the whole of them have been admitted to an Industrial School before other treatment had first been tested? I will answer this question by quoting the following extract from folio 29 of the Annual Report of the State Board of Massachusetts for the year 1898:—

"When juvenile offenders are committed to the custody of the Board, they are generally placed at once in some selected family in Massachusetts or elsewhere in New England. Sometimes, when the offence is slight, and the home is exceptionally good, they are placed with their parents on probation. Some of them are temporarily cared for in a special family, under the immediate direction of the Board. *The Board is authorised, in cases where family trial proves unsuccessful, to transfer children, under the original mittimus, to the Layman School or the State Industrial School.*"

Miss Pemberton, Superintendent of the Children's Aid Society of Pennsylvania, when addressing the National Conference of Charities and Correction, expressed herself in these words:—

"The children of neglect become the children of crime, not because they always inherit criminal tendencies, but because their associations and training are criminal. They need the exclusive personal care of a father and a mother, the stimulus of a new environment, and the prompt removal from present temptation far more than they need the locked step, the daily drill, the enforced task, and the unavoidable but deadly intercourse with criminal companions in a Reform School. The Boarding-out System offers a very simple solution of this problem of the child criminal."

These authorities and others that could be quoted if necessary bear out my contention that the family life system should be the first test, unless there are sufficient reasons to show that restraint and discipline are necessary for a probationary period only.

From the published reports, it appears that there is, at the present time, more accommodation available in our Industrial and Reformatory Schools than there are refractory children under treatment in these institutions. To apply the reorganisation scheme suggested by me would lead to this result:—The Carpenterian Reformatory would be recruited from the worst cases admitted to the "Sobraon" and from the best conducted juvenile offenders confined in our gaols; and the Shaftesbury Reformatory would be closed, the inmates of the latter being transferred to the Industrial School at Parramatta. The most refractory and nomadic State children under the control of the Board would, when necessary, be transferred to the Industrial Schools  
for

for probationary treatment; and immediately any marked improvement was shown in the conduct of Industrial School children, their transfer could at once be made to the home life system which my Board provides. When it became necessary to separate girls of improved character, but not yet eligible for service, from the more corrupt inmates of the Industrial School, they could be admitted into the Cottage Home, which it is the intention of the Board to set apart for the classification and training of troublesome, but not vicious, State girls. This would secure a desirable system of classification, and would confine our two important Industrial Schools more to the work of reform, and would prevent the possibility of their ultimately developing into a system of management in which it is difficult to distinguish where reformation ceases, and a policy of orphan school treatment begins.

In my last annual report, a scheme for the centralising of the Mittagong Cottage Homes for Invalids, and for the better classification of the inmates was fully outlined. I then pointed out that the rents paid for the seven (7) cottages now occupied were excessive, but that more suitable premises could not be secured. Moreover, the distances one from the other are too great for administrative requirements; and as the cottages were not erected for the purposes for which they are now being utilised, they do not allow of a necessary system of classification. For administrative purposes, and on economical grounds, and for other sufficient reasons, it is therefore desirable to secure a property of sufficient area at Mittagong upon which a number of homes of suitable design can be erected, and vegetables, fruit, and milk produced in sufficient quantities for local consumption. Had this suggestion, which has been under the consideration of the Government for nearly two years, been adopted, the State Children Relief Board would have been in a position to set apart one of the Government Cottages at Parramatta for the accommodation of the cripple lads in other homes, and at Newington Asylum. A cottage could also be utilised for the treatment of feeble-minded children upon lines similar to those so generally adopted in the United States, and a number of troublesome girls, now most undesirably associated with innocent children, could be removed to a home set apart for their special accommodation, in which the laundry and needle work of the other Cottages could be attended to, and the girls could be trained as domestic servants.

The suggestions I have made in my previous reports relating to Cottage Homes for Invalid Children, I regard as of supreme importance to the social well-being of the children who are brought under the control of the State, and I must confess the extreme sense of discouragement I labour under in consequence of the delay that has arisen in giving effect to the recommendations to which I refer. But this provision, when available, will dispose of only a number, and not the whole of the troublesome girls who are now under the control of the State Children Relief Board.

Access to Industrial Schools is required for the Board's juvenile offenders, for wanderers, and for the probationary treatment and punishment of children whose presence in a family becomes intolerable when they tire of their surroundings, and wish to be transferred to another home.

Upon reference to the map published as an appendix to this report, it will be seen that the Board's operations extend to the most remote parts of the Colony; and the supervision of the children, apart from a few isolated instances, is entrusted to Government Inspectors and honorary lady visitors; but these officials have no authority to inspect the apprentices placed out from Industrial Schools, although they visit probably every town in which such apprentices are located. I am not aware of any sufficient reason to justify the Government in providing

providing a divided control, or a separate form of oversight, when dealing with wards of the State subjected to an identical method of treatment; but it requires no argument to show that if the Superintendent of each Industrial School inspects the apprentices sent out from each of these institutions, the public funds must be saddled with unnecessary expense, while if the duty is delegated to the police, to be consistent, the police should also inspect upwards of 1,000 of the Board's apprentices, male and female, and the Board's officials should have this responsibility removed from their shoulders. But to attempt such a re-arrangement of work would lead to the cancellation of a number of indentures by the best guardians of the Department, and to admit that this effect would ensue from such a change of administration is also to acknowledge that under police surveillance the selection of homes is restricted to those prepared to tolerate this method of supervision—a result manifestly prejudicial to the best interests of the children. I do not, however, think the system of inspection adopted under the State Children Relief Act needs justification, as the wisdom of it is self-evident, and its recognition elsewhere is almost universal.

In my opinion the whole of the minor wards of the State should be subjected to the supervision of the Inspection Staff of the State Children Relief Board; and every home selected for State children, irrespective of their place of detention, should first be approved of by these officials. Moreover, an experienced officer should be entrusted with the distribution of the whole of these children, and the officer so appointed should be afforded facilities for consultation with the officials who have had the training of the children, and also with the Inspection Staff who pass the homes into which these children are to be admitted. The distribution could then be made with greater possibilities of success, and the work could be so concentrated that the subsequent inspection could be arranged at a minimum cost to the Government. These, and other instances which I could mention, lead me to believe that the placing of the whole of the minor wards of the State under one body, upon lines somewhat similar to those adopted in Victoria and South Australia, would lead to an improvement in the condition of the children themselves; and the harmonious working of the various branches must secure administrative advantages and economical results.

As the Minister for Public Instruction has announced his intention to introduce a bill for the amendment of our social laws,\* it appears to me an opportune moment to invite attention to the most recent and progressive legislation that has reached me bearing upon the management of State Charities. I refer to the action taken in July last by the State Parliament of Massachusetts (U.S.A.), representing a population upwards of two and a half millions of people. During the past twenty years the State Board of Charity of Massachusetts has had the control of the insane and other work as well; but the State Parliament has now established a State Board of Insanity, and the State Board of Charity has been left to administer that branch of work which its title suggests. In the last report to hand, published so recently as January, 1899, it is stated that "the Board made an important change in its organisation—one which it had under consideration for many years, and had only waited a favourable time to carry into effect." It was determined that from July, 1898, all persons under the care of the Board should be divided into two classes, to be called respectively the "State Adult Poor" and the "State Minor Wards," the first to be under the charge of an official known as the Superintendent of the State Adult Poor, and the latter under an official designated the Superintendent of the State Minor Wards—both to be subject to the Board's direction.

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\* This report was in type before a change of Government was anticipated.



The State Board of Charity—like the State Children Relief Board here—consists of nine members (male and female) who serve without compensation, but have their travelling expenses paid by the State. This Board has subdivided the State Adult Poor Branch into two divisions, viz. (1) the inmates of the several state institutions supported by the Commonwealth; and (2) the poor in the several cities and towns, whose expenses in cases of sickness, temporary need, transportation, and burial, are in like manner payable by the State. The State Minor Wards Division includes—

1. Juvenile offenders convicted of crime or misdemeanour, and committed by the courts *to the custody of the Board.*
2. Neglected children—that is, children between the ages of 3 and 17 neglected by their parents and committed by the courts *to the control of the Board.*
3. Dependent children—that is, orphans or children whose parents are too poor to support them; and
4. Pauper infants under the age of 3 years.

In this Colony the State Adult Poor Branch, the admission of dependent and neglected children to the control of the State, and the administration of the Children's Protection Act, are all under the control of the Director of Charities, who is also the chief executive officer of the State Children Relief Board, which has no official connection with the work referred to. My Board deals with children after their admission to State control only; that is, when they have been withdrawn from institutions and placed with guardians or in cottage homes for invalid children, but under the State Children Relief Act of 1896, the Board has the power of admitting children living with their mothers, and of paying the mothers for their maintenance when the circumstances render such action necessary.

It will, therefore, be observed that, apart from the fact that the Industrial and Reformatory Schools are not subject to the control either of the Board or the Board's chief officer, the whole of the work under the State Board of Charity in Massachusetts is similarly grouped in the one department in New South Wales, with this anomaly: that, whereas the State Board of Charity controls the whole (as it very properly should do), the State Children Relief Board administers but part, and its chief officer, acting independently, the other part; but neither one nor the other, nor the Executive Council itself, has power to apply to troublesome children the course of treatment the merits of the case demand.

In this Colony we have no laws for the suitable government of our adult poor. Our Industrial and Reformatory Schools Acts have not been remodelled for thirty-three years; and the Children's Protection Act—a measure for the protection of the infant life of the community—is admittedly defective in several clauses. These divisions of work have not been administered by a Board of Control, and, in my opinion, it is mainly attributable to this fact that progressive legislation has not been introduced.

The State Children Relief Acts, on the other hand, have been administered by a Board; and it is entirely due to the exertions of the State Children Relief Board that these statutes compare more than favourably with intercolonial and foreign legislation, and that we, in this Colony, are now in a position to congratulate ourselves upon the admirable and humane provisions which they contain.

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If, then, by comparing the results of our local administration, facts such as these become so strikingly apparent, the soundness of my reasoning must be admitted. But, if this evidence were not sufficiently convincing, and we are prepared to be guided by the experience of those interested in the work of charity in other countries, we must come to the conclusion that the most progressive legislation is invariably found in States where the wisdom of Board management has been recognised as a necessary institution in the administration of charitable work.

“So far as State action in matters of charity and correction and reform is concerned,” says an eminent authority, “it is the special function of the State Board of Charities to watch over it, to guide it. Directly or indirectly, most of the progress that has been made has originated with these Boards, or with men of like character, though working at a disadvantage, who have been engaged in the ennobling work.” [Mr. L. L. Barbour addressing the Twenty-first Annual Session of the National Conference of Charity, U. S.]

In advocating the constitution of a State Board of Charity in New South Wales, I have not approached the subject without a careful study of its probable effects, or without a firm belief in its public usefulness. Neither am I recommending the introduction of an untried principle, with nothing more to support its adoption than the force of my own opinion based upon a life-long experience of the merits, the defects, and the omissions of our constitutional laws in so far as they apply to the charitable work of this community. State Boards of Charity are recognised social institutions. They have stood the test of years and have produced the best results. My reasons for recommending a State Board of Charity in this Colony are as follow :—

1. Because the principle of Board management has, unquestionably, proved the best known method of charity organisation.
2. Because the State adult poor and the State minor wards should be controlled by one body.
3. Because one State Board of Charity can efficiently and economically control the whole of our Government charities and supervise the work of subsidised agencies.

Dealing first with the principle of Board management, we need not look further than our own statutes to find its soundness generally recognised. As it applies to wards of the State, it received Parliamentary sanction in 1881, and the passing of the State Children Relief Amendment Act of 1896 can only be regarded as a confirmation of this method of management. The Government of South Australia, acting upon the sound advice of no less an authority than the Chief Justice of that colony, who thoroughly investigated our methods of administration, introduced legislation based upon our Act of 1881, but, guided by our defects and the proved advantages secured in Victoria, wisely concentrated the control of all juvenile offenders and neglected and dependent children under the State Children Council of Adelaide, undoubtedly one of the most useful and competent social agencies in Australia. The Imperial Government has also recognised the principle of Board management, and in Germany and in the United States of America it is universally adopted, and recent legislation has widened the sphere of usefulness and increased the administrative powers. With such precedents as these to guide us, I may reasonably claim to have proved my contention that the principle of Board management has higher claims to recognition than individual administration.

Concerning the latter, I doubt whether any authoritative opinion more outspoken or more convincing can be found in standard works on charity organisation than the following quotation from  
Mr.

Mr. Barbour's address:—"Those in charge of Institutions," says Mr. Barbour, "never have reported, and never will report, their own faults and failures. They seldom report any untoward influences that magnify the evils they are called upon to amend, unless there is supervision and liability to criticism."

In support of my opinion that the State minor wards and the State adult poor (I do not refer to those eligible for old-age pensions, when pensions are voted) should be administered by one body, I wish first to refer to our own organisation. I have already pointed out that the industrial and reformatory schools are under the control of the Minister for Public Instruction, and that the neglected and dependent children are under the State Children Relief Board, while the Board's chief officer acts also as Director of Government Asylums, and chief officer under the Children's Protection Act. The whole work is, therefore, principally administered in one office; consequently the policy of concentrated management has been established by our own Government; and it only remains to transfer the control of the most necessary of all adjuncts—the juvenile offenders—to bring the whole of the work under the one Department. The advantages to be derived by doing so are so obvious, and the affiliation of the work is so natural, that I do not think a moment's serious consideration of the subject will lead to any other conclusion than that our system of divided control is detrimental to the public interests, and inimical to the well-being of the children of the State.

The Governments of Tasmania, South Australia, and Victoria believe this to be so; and as the legislation in these colonies is more recent than our own, we can only conclude that the affiliation is advantageous, or it would not be accepted with such unanimity. And when we bear in mind that our Industrial and Reformatory Schools Acts have not been recast since 1866, and that the South Australian Act was passed in 1885, and the Victorian statutes were amended in 1890, it is inconceivable that the primary provisions of our own laws would have been disregarded unless the scientific knowledge of recent years had substituted other methods wiser and better than those which we have so long applied to the children of the State in New South Wales.

And, if it be wrong in principle to amalgamate the minor wards and the adult poor branches, then the Director of Charities here should not act as chief boarding-out officer and chief officer under the Children's Protection Act; nor should the whole of the Government Charities be placed under the control of one official in Tasmania. Moreover, it would also be a wise policy for the eighteen States of America to recast their legislation and appoint thirty-six State Boards of Charity to deal with the work, which practical experience teaches can, in the best interests of each State, be entrusted to eighteen advising and controlling agencies, constitutionally appointed under statutes carefully drawn and subject to frequent revision.

If I have succeeded in showing that a State Board of Charity should be the governing body here, and that one agency should control the whole of the minor wards and the adult poor as well, it only remains for me to advance reasons sufficiently convincing to lead to the conclusion that this amalgamation of work would not be too unwieldy to be judiciously entrusted to the administration of one governing body. This can be done most effectively by making comparisons between the population of our own Colony and the population of States where similar organisations have proved capable of supervising a greater amount of work with much more satisfaction to the public than our separate methods of management have secured here. Of the eighteen State Boards of Charity in the United States of America, those of Rhode Island,  
Kansas,

Kansas, New York, and Massachusetts exercise the greatest powers; but as the latter two cover the widest field of miscellaneous work, and as their statutes embody the most recent legislation, they may be accepted as the best for purposes of comparison. The population of the State of New York is double the population of the State of Massachusetts, and the population of the State of Massachusetts is approximately one million in excess of that of New South Wales; consequently it must be possible for one State Board of Charity in this Colony to efficiently perform similar functions here, otherwise we must come to the conclusion that, after twenty years experience in Massachusetts, the State legislation there has unwisely confirmed during the past twelve months, the statutory powers of a body incapable of dealing satisfactorily with the minor wards of the State, and unequal to the responsibilities connected with the relief of the dependent poor distributed throughout a population of two and a half millions of people.

In my opinion, the whole of the Government and subsidised charities of this Colony should be placed under the control of one body, and I believe no better system can be introduced than that in operation in Massachusetts, and in other parts of the United States, where sociology has been treated most scientifically, and where the well-being of the aged and the young maintains its true position as the primary object of charitable work.

In order to remove any misapprehension that may arise after perusing my report, I wish to say that my criticism, in so far as it applies to institutions not within the jurisdiction of the State Children Relief Board, refers to defective laws, and not to maladministration on the part of officials so long discouraged by defective legislation, in the performance of their public duties. Considering the disadvantages, these institutions are, I believe, excellently managed; and the whole of the officials have worked earnestly and cordially with the State Children Relief Board in the past. A comprehensive system of social reform is, however, much needed in our statutes, and my object in writing at such length is to point out existing defects, and indicate the lines upon which, in my opinion, that reform should be based.

## PART I.

### SHOWING THE OPERATIONS OF THE STATE CHILDREN'S RELIEF BOARD UNDER STATE CHILDREN RELIEF ACT, 44 VICTORIA No. 24, AND STATE CHILDREN RELIEF ACT, 60 VICTORIA No. 9.

From 1881 to September, 1896, the operations of the State Children Relief Board were confined to the provisions of the State Children Relief Act of 1881, which gave the Board power to deal only with State children maintained apart from their parents. The Amendment Act of 1896, however, in addition to remedying the defects of the Principal Act, made provision for widows and deserted wives to receive cash allowances for the support of their own children. Prior to 10th September, 1896, mothers—who were left with families of young children, and who found the relief granted by public and private charities insufficient to enable them to keep their homes together—were compelled to have their children admitted to the control of the State, to be maintained at the expense of the Government, with guardians selected by the State Children Relief Board. The statutory powers embodied in the Act of 1896 have, however, during

during the past two and a half years, rendered it unnecessary to take the children from their natural guardians, provided the mothers were in necessitous circumstances and suitable persons to have the control of children. This special provision in our social laws is, I believe, a step in advance of either intercolonial or international legislation; and as it has only recently been introduced here, I purpose dealing fully with my Board's experience of its application to the deserving cases of distress which have come under notice since the benefits conferred by this Act have been administered in New South Wales. In the first instance, I intend to deal with the statistics relating to children maintained apart from their parents and those left in the custody of their natural guardians conjointly; and subsequently to treat each branch of the Board's work separately, as heretofore. By this means, the effect of the operations of one division upon the other will be more clearly understood, and the estimated additional expenditure to the State will be explained, as far as it is possible to do so from the data at my disposal.

The following table shows the rate at which the number of children provided for, apart from their parents, has increased annually since the initiation of the boarding-out system:—

Under control on	Supported by Government.			Adopted without payment.			Apprenticed.			Total under control.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
5 April, 1881.....	24	35	59	...	...	...	...	...	...	24*	35	59
5 ,, 1882.....	40	60	100	...	3	3	...	...	...	40	63	103
5 ,, 1883.....	118	174	292	1	10	11	...	4	4	119	188	307
5 ,, 1884.....	221	289	510	6	15	21	5	16	21	232	320	552
5 ,, 1885.....	523	363	886	15	35	50	26	64	90	564	462	1,026
5 ,, 1886.....	614	411	1,025	28	65	93	137	111	248	779	687	1,366
5 ,, 1887.....	741	473	1,214	49	74	123	309	156	465	1,099	703	1,802
5 ,, 1888.....	793	485	1,278	52	84	136	357	189	546	1,202	758	1,960
5 ,, 1889.....	815	526	1,341	61	93	154	440	238	678	1,316	857	2,173
5 ,, 1890.....	805	543	1,348	62	96	158	513	265	778	1,380	904	2,284
5 ,, 1891.....	807	566	1,373	67	91	158	543	295	838	1,417	952	2,369
5 ,, 1892.....	776	613	1,389	69	94	163	545	299	844	1,390	1,006	2,396
5 ,, 1893.....	821	643	1,464	61	97	158	500	325	915	1,472	1,065	2,537
5 ,, 1894.....	955	786	1,741	59	106	165	592	311	903	1,606	1,203	2,809
5 ,, 1895.....	1,167	927	2,094	56	91	147	599	334	933	1,822	1,352	3,174
5 ,, 1896.....	1,356	1,085	2,441	50	76	126	548	341	889	1,954	1,502	3,456
5 ,, 1897.....	1,506	1,145	2,651	55	71	126	524	370	894	2,085	1,586	3,671
5 ,, 1898.....	1,442	1,179	2,621	69	80	149	572	367	939	2,083	1,626	3,709
5 ,, 1899.....	1,418	1,145	2,563*	63	75	138†	623	398	1,021‡	2,104	1,618	3,722

\* This total includes 8 children in Hospital, 143 in Cottage Homes, 33 in Depot, 24 under 2½ years paid for at 7s. per week, 20 paid for at 6s., 4 infants paid for at 8s. per week, and 1 lad paid for at 10s. per week, 147 paid for at rates ranging from 2s. to 4s. 6d. per week (with relatives), while the balance are paid for at 6s. per week.

† This total includes 22 children who are classed as "Boarders without subsidy," that is, placed with guardians who, as in the case of adopted children, do not receive payment for maintenance.

‡ This total includes 19 absconders, whose names still appear on the books, and 3 children classed as unofficial.

THE following Statement shows the receipts and expenditure of the State Children's Relief Board since 1881 :—

Under control on	Annual Expenditure.					Revenue.
	Boarding-out.	Widows, &c.	Cottage Homes.	Children's Protection Act.	Total.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
5 April, 1881.....	.....	.....	.....	.....	.....	.....
5 „ 1882.....	1,683 8 5	.....	.....	.....	1,683 8 5	51 0 0
5 „ 1883.....	4,211 11 3	.....	.....	.....	4,211 11 3	107 1 0
5 „ 1884.....	7,791 19 1	.....	.....	.....	7,791 19 1	232 16 0
5 „ 1885.....	12,253 15 10	.....	85 4 0	.....	12,338 19 10	251 5 6
5 „ 1886.....	16,122 6 7	.....	1,679 6 3	.....	17,801 12 10	412 13 9
5 „ 1887.....	17,908 10 10	.....	2,061 0 2	.....	19,969 11 0	616 3 0
5 „ 1888.....	20,236 8 10	.....	2,203 17 8	.....	22,490 6 6	574 8 6
5 „ 1889.....	20,823 9 4	.....	2,120 9 7	.....	22,943 18 11	556 16 6
5 „ 1890.....	22,059 14 7	.....	2,459 5 1	.....	24,518 19 8	634 19 9
5 „ 1891.....	23,871 16 3	.....	2,457 15 6	.....	26,329 11 9	720 9 7
5 „ 1892.....	24,842 1 0	.....	2,863 0 11	.....	27,710 7 11	724 9 8
5 „ 1893.....	25,798 2 5	.....	3,233 14 10	.....	29,031 17 3	629 10 9
5 „ 1894.....	29,490 11 9	.....	3,218 5 0	.....	32,708 16 9	551 2 7
5 „ 1895.....	31,474 9 7	.....	3,000 12 5	.....	37,475 2 0	861 17 7
5 „ 1896.....	38,919 19 8	.....	3,280 15 3	.....	42,200 14 11	963 19 4
5 „ 1897.....	43,161 5 0	1,070 9 6	3,020 8 2	169 6 4	48,021 9 0	839 0 2
5 „ 1898.....	44,436 3 11	11,794 7 6	3,229 5 8	87 4 0	59,596 1 1	792 9 10
5 „ 1899.....	41,887 8 0	15,647 12 8	3,326 8 9	100 2 6	60,961 11 11	904 10 10

NOTE.—The cost of administering the Children's Protection Act is also included to balance the Treasury advances.

The children for whom mothers receive allowances under the Act of 1896 are the children who, if admitted under the principal Act would have been classed as “supported by the Government.” (See first table.) I will, therefore, deal specially with the statistics under this heading, as adopted children and apprentices are not supported by the Government. Upon examining the numbers maintained on the 5th April, 1893, 1894, 1895, and 1896, it will be seen that the increase is equal to 325 a year, or a total of 977, during the three years preceding 5th April, 1896. Healthy children over the age of 3 years are paid for at 5s. a week; children under 3 years from 6s. to 10s. a week; and delicate children over the age of 3 years from 6s. to 8s. a week. These allowances have been fixed at rates in excess of the actual cost of maintenance; not to allow a margin in favour of the guardian would decrease the number of applicants for State children, for obviously the higher the rate allowed the wider the selection and, consequently, the higher the standard of the homes in which such children are placed. That the rates paid here are reasonable is evidenced by the fact that the State Children Relief Board has always been in a position to reject over 40 per cent. of the applications received, and still have more suitable homes available than there have been children to distribute amongst them.

The average cost per head (not including salaries) amounts to £14 4s. 1d. per annum. Assuming that the Act of 1896 had not been passed, and that the relative annual increase had continued, the total 2,441 supported by the Government on 5th April, 1896, would have reached

reached 3,418 on 5th April, 1899. But the actual figures on the 5th April, 1899, are shown to be 2,563 only, or 855 less than would have been admitted if the relative annual increase of the three preceding years had continued. During the three years prior to 1896 the increase was at the rate of 325 a year. In 1897 the total stood at 2,651: in 1899, 2,563 only—an actual decrease of 88 children. The total cost for the year 1896 was £42,200 14s. 11d. 855 extra children at £14 4s. 1d. per head would increase this total by £12,144 11s. 3d., and thereby necessitate an outlay of £54,345 6s. 2d. in providing for the maintenance of children apart from their parents.

Passing from this branch of the Board's work to the statistics relating to children whose mothers have been paid allowances to help with their maintenance, it will be seen upon reference to folios 29 and 30, that on the 5th April, 1898, 770 mothers were assisted to support 2,422 children, while on the 5th April, 1899, 935 mothers received allowances for the maintenance of 2,884 children. The amount paid to these widows and deserted wives during the year now under review was £15,647 12s. 8d., but including both divisions the gross amount expended during the year ended 5th April, 1899, was £60,961 11s. 11d. I have already pointed out, however, that if the Amended Act had not been in force the estimated expenditure under the Principal Act would have been £54,345 6s. 2d. By deducting the estimated cost of maintaining children apart from their parents (£54,345 6s. 2d.) from the amount actually expended in providing for neglected children and those left with their mothers as well, there is an apparent increase of £6,616 5s. 9d. per annum. It may, therefore, be assumed that the administration of the Amended Act of 1896 has increased the expenditure of the State Children Relief Board by about £6,600 a year over and above the estimated expenditure had not this law been in operation. But it should not be assumed that this is altogether a new item; for a large number of the women who receive these allowances were previously assisted by societies subsidised by the Government, while substantial cash allowances were granted to others by the Chief Secretary from the Charity Vote. The expenditure the Board has since incurred cannot, therefore, be regarded wholly as additional disbursement of charity. Part of the amount represents merely another method of distribution, but in the absence of reliable data I am not in a position to say what cash value should be placed upon it. It is, however, a noticeable feature of the Board's work that a number of the most deserving families now assisted concealed their destitution from private and subsidised Societies, and deprived both themselves and their children of common necessities rather than appeal for any other form of charity. Relief given in such instances is, therefore, entirely increased expenditure. The average rate paid per child is slightly less than 2s. 6d. per week; the average number in each family is a fraction over three; and the average weekly rate paid to the 935 mothers is about 7s. Taking into consideration the continuity of the payments, these allowances are probably worth 4s. 6d. a week more in each case than those which the mothers received from the societies that previously helped them.

The law provides that each amount voted must be determined by the Board, and, in the case of deserted wives, unanimously. To those experienced in charitable work it will be readily understood that the duties devolving upon the State Children Relief Board in apportioning these allowances with a due regard to the necessities of each case are surrounded with difficulties that require the most careful consideration. Apart from the question of character and fitness to have charge of children, the Board must be in a position to know whether

whether the mothers are able to work themselves, and whether they live in localities where work is available; whether they make an effort to help themselves; whether they live rent free, or have any source of income other than their earnings; the amount of assistance allowed by their children, relatives, or friends; whether children able to work are allowed to remain in idleness at home; and if the rents paid are too high. These, and other conditions so frequently varying, make it impossible to adopt a scale of payments which would be suitable for the whole of any specified time. The equity of the allowances depends chiefly upon the frequentness of inspection, and the longer the intervals between the visits, the greater the hardship likely to ensue from under-payments; and the greater the probabilities of imposition, should the allowance have been apportioned too liberally. In the Metropolitan and in the Newcastle Districts each home should be visited not less than once every two months, then the Board would be able, as it is always prepared to do, to systematically vary the payments to meet reasonable appeals for extra consideration. Owing, however, to pressure of work, the inspectors are unable to visit more frequently than once in six and sometimes once in nine months.

The Board often receives from the mothers and their friends appeals for payment of allowances based on the rates paid to strangers who engage to nurse children maintained apart from the parent. These rates exceed the actual cost of maintenance, and it is not the Board's intention to authorise their payment to mothers for the support of their own children, nor is it the intention of the Act that such payments should be made. The official records of the Department show that the able-bodied mother who cannot provide for the support of herself and her children when in receipt of a weekly allowance of 2s. 6d. per child is, as a rule, unfitted to be their custodian, and the Board, in the interests of the children, deem it advisable in such cases to wholly provide for the children by boarding them with non-relatives rather than grant supporting allowances to those well able to manage, if industrious, with assistance only. If the children are delicate, or the mothers are of weak constitution, no reasonable appeal for increased payment is refused when the facts of the case are brought under notice.

In order to satisfactorily deal with this important branch of the Board's work special meetings have to be held, and occasionally three sittings a month become necessary. And it would obviously be wrong to meet even so seldom if the conditions of each case had to be hastily examined and the allowances voted without a previous knowledge of the surrounding circumstances. It was therefore determined, in order that the allowances might be made with due regard to the wants of each appeal, that a *précis* of each case should be prepared and forwarded to the individual members of the Board several days in advance of the meeting. This arrangement works admirably. The whole of the applications are carefully analysed before the meeting; the rates are assessed by each member and, as the allowances are voted after comparing notes, the Board is in a position to announce that the rates fixed represent a consensus of opinion based upon an intimate knowledge of the circumstances of each parent at the time the Inspector furnished the report.

Upon reference to the statistics on folio 30, it will be found that 198 applications were refused, and 71 were held over for more complete information. Three hundred and eighty-five new applications were granted; 306 were reviewed, but the rates allowed were not varied; 137 were increased; while the allowances in 223 instances were reduced principally on the ground that the children had reached an age when they were able to support themselves, and 220 cases receiving relief were discontinued. The latter total includes widows who remarried or voluntarily withdrew owing to improved circumstances, and others whom the Board considered able to make provision for their families without further State relief.

BALANCE-SHEET



## BALANCE-SHEET of the State Children Relief Board for the Year ending 5th April, 1899.

The State Children's Relief Board in account with the Colonial Treasurer, 5th April, 1899.

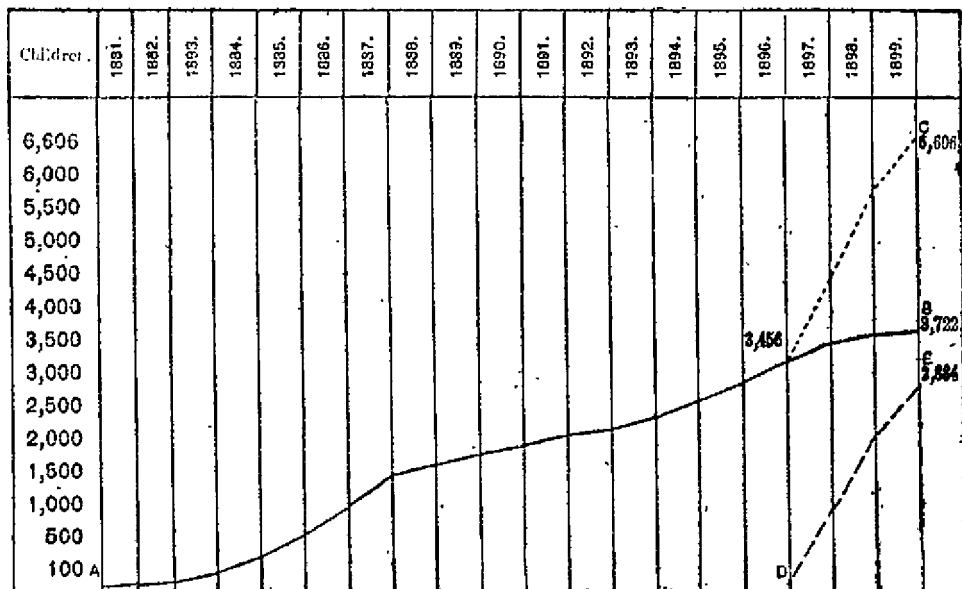
DR.				CR.			
	£	s.	d.		£	s.	d.
1898.							
15 April —To Balance .....			778	9	0		
5 May Advance from Treasury .....	750	0	0				
8 June " " .....	1,630	0	0				
1 July " " .....	300	0	0				
5 " " " .....	10,500	0	0				
4 August " " .....	1,900	0	0				
7 September " " .....	1,650	0	0				
5 October " " .....	10,300	0	0				
10 November " " .....	1,550	0	0				
5 December " " .....	1,850	0	0				
1899.							
5 January " " .....	10,350	0	0				
3 February " " .....	1,800	0	0				
6 March " " .....	1,900	0	0				
5 April " " .....	10,100	0	0				
			54,580	0	0		
Salaries from Treasury .....	5,465	18	1				
Accounts paid at Treasury .....	628	19	11				
			61,453	7	0		
By Maintenance .....	31,711	0	11				
Clothing .....	1,862	6	9				
Salaries .....	5,465	18	1				
Medical .....	731	9	5				
Gas .....	28	12	5				
Books .....	10	1	1				
Incidentals .....	558	16	10				
Conveyance .....	454	17	2				
Travelling .....	1,258	8	5				
Cottage Homes .....	2,535	17	5				
Depôt .....	229	12	8				
Travelling Advance .....	200	0	0				
Furnishing Depôt .....	57	7	8				
Deserted Wives and Widows .....	15,647	12	8				
Payments to Registrars, C. P. A. ....	100	2	6				
Repayments to Treasury .....	46	10	5				
Postal and Telegraph Department .....	29	17	6				
			60,961	11	11		
Balance .....	491	15	1				
			61,453	7	0		

Upon comparing the balance-sheet published on page 18 with the expenditure shown in last year's report, it will be found that the following savings have been effected:—

	£	s.	d.
Clothing ... ..	313	4	1
Gas ... ..	21	4	4
Books ... ..	59	7	2
Travelling ... ..	470	3	4

One of the most striking features noticeable in an analysis of the Board's expenditure is the variation in the outlay for the maintenance of children supported apart from their parents. In the year 1893 the total cost was £25,798 2s. 5d., but during 1896 the outlay reached £38,919 19s. 8d., an increase of £13,121 17s. 3d., or an increase of £4,373 19s. 1d. a year. In 1899 the payments to mothers for the keep of their children so influenced this vote that it shrunk to £41,887 8s., or an actual decrease of £2,597 15s. 11d., compared with the expenditure of this service during the year 1898. As the annual increase for the three years preceding 1896 was £4,373 19s. 1d., and as the actual decrease between 1898-9 was £2,597 15s. 11d., the new policy may be said to have influenced the expenditure under the Principal Act to the extent of an annual saving of about £7,000 a year. The chief increase will be found under the heading "Widows and Deserted Wives." This expenditure is £3,853 5s. 2d. in excess of last year, but the total cost of the year 1898 for all services was £59,596 1s. 1d. against a total expenditure of £60,961 11s. 11d. for the year ending 5th April, 1899, or an increased expenditure of £1,365 10s. 10d. only. When it is considered that without the benefits conferred under the Amendment Act the expenditure for the three years prior to 1896 increased at the rate of £4,373 19s. 1d. a year, and that last year the increase in the total expenditure of the Board amounted to the comparatively small item of £1,365 10s. 10d., there is reason to believe that ultimately it may be found not only more humane but more economical for the Government to pay the mothers than remove the children from their custody. The great increase in expenditure from £42,200 14s. 11d. in 1896 to £59,596 1s. 1d. in 1898 is, of course, attributable to the change of policy, which brought an appeal from every mother who expected to receive benefits under the Act. When the whole of these appeals were dealt with the additional expenditure of the Department increased by £1,365 10s. 10d. only during the succeeding year's operations. This additional expenditure represents the lowest annual increase of any year since the constitution of the Board in 1881, excepting during the year 1889, when the increased expenditure for all services was £459 only in excess of the cost of 1888.

The following chart shows the increase in the number of children under the Board's control in both divisions from year to year since 1881:—



The line A B represents the increase in the number of State children boarded-out, adopted, and apprenticed apart from their parents at the close of each year since 1831. The line D E represents the increase in the number of children *partly supported* in the care of their mothers since 1896. The line A C represents the total number of children subject to inspection, but does not include 544 infants registered under the Children's Protection Act, which is administered by the Board's Chief Officer. The latter children are not supported by the Government.

After examining this chart, and the map which forms an appendix to this report, and shows the towns in which these children are placed, it will, I am sure, be conceded that six male inspectors and three ladies cannot visit the whole of the children frequently enough to reduce imposition to a minimum, and properly safeguard the interests of the children by careful examination of their methods of treatment, more especially when it is taken into consideration that these officials have also to examine claims for Government subsidy, attend to the inspection work of the Children's Protection Act, and investigate all applications in the Metropolitan District for relief from the Charity Vote. In 1895, when, as will be seen from the chart, the number of children under control was 3,174, twelve inspectors, drawing salaries amounting to £2,400 a year, were employed, and these officials were assisted by members of the clerical staff to such an extent, that the strength was equal to fourteen officials working full time. When the re-organisation by the Public Service Board took place in 1896, but prior to the passing of the 1896 Act, and, therefore, before the extra work was added, the number of inspectors was reduced to seven. Two have since been appointed; but no assistance is now rendered by the clerical staff. There are 6,606 children to be inspected, and the salaries paid amount to £1,700 a year, or £700 a year less than the cost in 1895, when the number of children under control was 3,174, or 3,432 less than have now to be visited. Pending a further re-organisation of the Department, which the Public Service Board is considering, the question of increasing the number to the strength of 1895 has been held over; but as the delay vitally affects the efficiency of my Board's administration, additional inspectors should be promptly appointed. The Public Service Board is, however, fully seized with the importance of this matter, and will, I understand, have it adjusted shortly.

During the year 1896, when the mothers were first paid for the support of their children, there were 3,456 children cared for, apart from their parents, under supervision of the State Children Relief Board, and the cost for the maintenance of those boarded-out was £14 3s. 11d. per head. A comparison with the statistics of other colonies about that time—that is, before the statistics here were influenced by a change of policy—is stated hereunder:—

Colony.	Under control.	Cost per head.		
		£	s.	d.
New South Wales ... ..	3,456	14	3	11
Victoria ... ..	3,965	14	17	4
South Australia ... ..	1,009	14	6	0
Queensland ... ..	1,615	14	10	3

The figures for New South Wales are brought up to 5th April, 1896; those for Victoria to 31st December, 1896; South Australia to April, 1898; and Queensland to 31st December, 1897. The statistics for all colonies on 31st December, 1896, are not available, but those quoted will be found sufficiently accurate to show that both in the number of children dealt with, apart from their parents, and in the disbursement of the public funds set apart for their maintenance, the administration in this Colony has proved highly satisfactory.

I have already stated that the payment of cash allowances by the Government to mothers for the support of their children is confined to this Colony only. I am, therefore, not in a position to make comparisons,

parisons, but a perusal of the comprehensive statement which I have given in this report concerning the administration of this Act will, I believe, lead to the conclusion that the State Children Relief Board has not only succeeded in placing deserving mothers of sober and industrious habits in a position to support their children, if they make a reasonable effort to help themselves, but has also distributed the amounts set apart for the purpose with a conscientious regard to their public responsibilities.

## PART II.

## ADMINISTRATION OF THE STATE CHILDREN'S RELIEF ACT OF 1881.

(Children provided for apart from their parents.)

The following statistics represent the variation in numbers during the year ended 5th April, 1899:—

	Boys.	Girls.	Total.
Under control on 5th April, 1898	2,083	1,626	3,709
Admitted during the year	308	261	569
Total number of children under control during year	2,391	1,887	4,278
Discharged during the year:—			
Deaths from natural causes	11	8	19
Drowned	2	0	2
To relations and friends	134	152	286
Committed by police to Industrial and Reformatory Schools			
To Deaf, Dumb, and Blind Institution	13	2	15
„ Sydney Benevolent Asylum	2	4	6
„ Newcastle	11	12	23
„ Newington Asylum	1	0	1
„ Female Refuge, Tempe...	0	2	2
„ Hospital for Insane, Newcastle	0	4	4
„ Rookwood Asylum	3	2	5
Over age	1	0	1
	109	83	192
	287	269	556
Total number under control on 5th April, 1899	2,104	1,618	3,722

The following Table explains the conditions under which these Children were placed out on the 5th April, 1899:—

	Boarders.						Apprentices.	Adopted.	Boarders with- out Subsidy.	Absented.	Unofficial.	In Hospitals.	In Cottage Homes.	In Depot.	Total at present under control.	Increase during year.
	10s.	Special, 8s.	Under 3 years old, 7s.	6s.	5s. and under.	Total.										
Boys .....	1	2	13	14	1,338	1,368	605	53	10	15	3	6	29	15	2,104	...
Girls .....	...	2	11	15	983	1,011	394	63	12	4	...	2	114	18	1,618	...
Totals...	1	4	24	29	2,321	2,379	999	116	22	19	3	8	143	33	3,722	13

The map published as an Appendix shows the names of the places in which children are placed out; but as it is not possible to insert the number in each locality, the following list is published for general information:—

District.	No.	District.	No.	District.	No.
Araluen	5	Botany	11	Bulga	1
Ashfield	33	Burwood	46	Bowling	3
Arncliffe	5	Breeza	1	Bungendore	4
Annandale	14	Boggabri	2	Bellambi	4
Auburn	34	Bexley	3	Bellinger River	1
Albury	10	Bredalbane	1	Brookfield	12
Albion Park	4	Bowral	14	Barraba	2
Adamstown	12	Bundanoon	3	Berry	14
Armidale	12	Box Creek	7	Bega	3
Balmain	146	Braidwood	19	Binalong	2
Berrima	1	Bulli	2	Brogo	3
Broken Hill	2	Balgownie	15	Bathurst	21

District.	No.	District.	No.	District.	No.
Brewongle ...	1	Islington ...	7	Queanbeyan ...	15
Blacktown ...	3	Inverell ...	3	Quaama ...	...
Branxton ...	37	Ingleburn ...	18	Rockdale ...	8
Baulkham Hills ...	2	Junee ...	6	Rookwood ...	49
Croydon ...	16	Jamberoo ...	19	Redfern ...	59
Camperdown ...	17	Jerilderie ...	1	Ryde ...	6
Canterbury ...	3	Kogarah ...	20	Randwick ...	8
Carlingford ...	9	Kangaloon ...	1	Riverstone ...	28
Carcoar ...	1	Kingsdale ...	2	Richmond ...	2
Cudal ...	1	Kiama ...	16	Rooty Hill ...	12
Campbelltown ...	5	Kangaroo Valley ...	17	Raymond Terrace ...	7
Castle Hill ...	5	Katoomba ...	1	Rydalmere ...	1
Canley Vale ...	8	Kellyville ...	4	Rylstone ...	1
Caddai ...	6	Leichhardt ...	92	Richmond River ...	45
Crookwell ...	9	Liverpool ...	36	Sackville Reach ...	13
Cabramatta ...	3	Lambton ...	17	Summer Hill ...	14
Camden ...	71	Lismore ...	17	Sydney ...	21
Coonabarabran ...	1	Lochinvar ...	4	Singleton ...	30
Cooperook ...	3	Locksley ...	1	Surry Hills ...	34
Cundletown ...	1	Manly ...	11	Shellharbour ...	2
Corrimal ...	10	Maitland, East ...	14	Scone ...	4
Coolac ...	2	Maitland, West ...	99	Stuart Town ...	3
Condobolin ...	1	Marrickville ...	92	Smithfield ...	5
Carcoar ...	4	Macdonaldtown ...	40	Sutherland ...	1
Cootamundra ...	9	Middlearm ...	6	Tirianna ...	4
Cambewarra ...	6	Mummel ...	4	Tarago ...	15
Cooma ...	12	Minmi ...	1	Tarana ...	1
Cessnock ...	6	Morree ...	1	Thirlmere ...	15
Clarencetown ...	3	Mt. Kembla ...	5	Tamworth ...	2
Cobar ...	1	Morrissett ...	4	Toongabbie ...	4
Clarence River ...	16	Minto ...	1	Tempe ...	12
Deniliquin ...	1	Mary Vale ...	1	Temora ...	1
Dapto ...	5	Manilla ...	...	Tweed River ...	3
Dungog ...	10	Millie ...	1	Tarlo ...	3
Douglas Park ...	1	Mittagong ...	82	Thirroul ...	3
Dural ...	9	Moss Vale ...	11	Teralba ...	2
Dubbo ...	5	Marulan ...	19	Unandera ...	6
Dora Creek ...	5	Murrumburrah ...	1	Ulladulla ...	5
Eden ...	4	Milton ...	29	Vacey ...	10
Eastwood ...	2	Moruya ...	2	Waverley ...	28
Ermington ...	4	Merrylands ...	15	Woolloomooloo ...	20
Fairfield ...	10	Mulgrave ...	1	Woollahra ...	17
Forrester ...	3	Mudgee ...	5	Waterloo ...	42
Forbes ...	9	Molong ...	3	Wallerawang ...	3
Fairymeadow ...	6	Miller's Forest ...	14	Wheco ...	7
Glenbrook ...	3	Morpeth ...	8	Windellama ...	6
Glebe ...	26	Muswellbrook ...	6	Watson's Bay ...	3
Gladesville ...	14	Macleay River ...	2	Wagga Wagga ...	2
Goulburn ...	249	Menangle ...	1	Wollongong ...	14
Grabben Gullen ...	10	Newtown ...	79	Windsor ...	27
Granville ...	60	Nowra ...	22	Wentworth ...	3
Guildford ...	17	Newcastle ...	56	Waratah ...	5
Gunning ...	27	North Sydney ...	68	Wilberforce ...	22
Gerringong ...	9	Nelson ...	3	Wellington ...	4
Girilambone ...	1	Nubba ...	2	Wallsend ...	17
Gerogery ...	1	Oberon ...	3	Wickham ...	2
Glen Innes ...	3	Orange ...	2	Woodville ...	2
Gosford ...	2	Ourimbah ...	1	William Town ...	1
Greta ...	3	Oxley Island ...	5	Wollombi ...	6
Gunnedah ...	1	Pymont ...	12	Walgett ...	1
Gulgong ...	3	Paddington ...	61	Woonona ...	38
George's Plains ...	2	Peak Hill ...	4	Warren ...	3
Hunter's Hill ...	19	Parramatta ...	168	Wingham ...	1
Hurstville ...	25	Petersham ...	41	Wallendbeen ...	1
Hexham ...	3	Parkesbourne ...	5	Wyalong ...	2
Helensburgh ...	2	Paterson ...	21	Yarra ...	5
Hinton ...	7	Picton ...	31	Yass ...	27
Hornsby ...	2	Pitt Town ...	9	Young ...	2
Hawkesbury ...	50	Peelwood ...	1	Out of Colony ...	4
Hillston ...	6	Penrith ...	15	Depôt ...	33
Hay ...	2	Parkes ...	3	Absoconders ...	19
Hermidale ...	1	Pyree ...	2	Hospitals ...	8
Harden ...	5	Port Stephens ...	1	Cottage Homes ...	143
Hartley Vale ...	2	Port Macquarie ...	1		
				Total ...	3,722

The following return shows the number of applications received for the custody of State Children under the boarding-out, adoption, and apprenticeship clauses of the Act during the past six years:—

Year.	Approved.	Refused.	Not yet inquired into.	Total.
1894 ...	667	186	244	1,097
1895 ...	908	292	615	1,715
1896 ...	858	398	264	1,520
1897 ...	769	301	440	1,510
1898 ...	927	332	529	1,788
1899 ...	875	315	425	1,615

A total number of 1,615 applications was received during the year; 1,190 were enquired into, and of this number 315 were rejected upon the reports of the Board's inspectors.

Of the number received during the year ending 15th April, 1899, 1,265 were from Protestant and 350 from Roman Catholic applicants. The number of children applied for was 2,473, and the number of children admitted 569. The conditions under which the children were required are shown below:—

Religious Denomination.	Boarders.	For Adoption.	For Service.	Total asked for.
Protestant ... ..	1,402	36	480	1,918
Roman Catholic ... ..	457	15	83	555

#### *Inspection of Children.*

The number of visits paid to the children by the Government officials during the past year cannot be regarded as satisfactory. In this division 1,092 visits less were paid during the year ending 5th April, 1899, than were recorded in the previous year. Some of the children have been inspected twice, but the visitation in the country districts does not exceed one visit a year. Each child should be visited at least three times in the Metropolitan district, and in Newcastle and Goulburn, where so many are located; and it is not judicious to limit the inspection in all other districts, where the homes are more scattered, to less than twice annually. The Board wish to express their high appreciation of the services rendered by the honorary visiting staff, who have so ably assisted during the past year. The number of visits paid during 1897-8 amounted to 4,164, but this total reached 6,856 during the year now under review—a most substantial increase of 2,692 visits. But included in the number 6,856 are the visits paid to children boarded with their mothers. The following table shows the number of visits paid during each of the past six years:—

Year.	Permanent Staff.	Lady Visitors.	Total.
1894 ... ..	6,323	1,666	7,989
1895 ... ..	6,851	1,305	8,156
1896 ... ..	6,606	2,008	8,614
1897 ... ..	7,147	1,465	8,612
1898 ... ..	5,950	4,164	10,114
1899 ... ..	4,858	6,856	11,714

*Adopted Children.*

The number of children adopted by reputable citizens without payment has increased from 111 in 1898 to 116 in 1899. As the cost per head for maintenance is £14 4s. 1d. for boarded-out children, the placing of 116 children with foster parents for adoption represents a considerable saving to the Government. These children mostly assume the surname of the foster-parent, and the fact that they are not the legitimate offspring of their guardians is known to the officials of the Department only.

*Number of Children in each Home.*

The principle of maintaining, as far as possible, the feelings of family affection, by not separating brothers and sisters, has been adhered to, with the results as shown hereunder:—

1,382	homes with 1 child.				
517	"	"	2 children, including 392 with children of one family.		
232	"	"	3 " "	159	" "
93	"	"	4 " "	32	" "
7	"	"	5 " "	4	" "

2,231 homes, containing 3,519 children (exclusive of 19 absconders, 8 in hospitals, 143 in cottage homes, and 33 in depôt).

It will be seen, therefore, that there are 587 homes with children of one family.

Exclusive of homes containing children of one family, there are:—

1,382	homes with 1 child.		
125	"	"	2 children.
73	"	"	3 "
61	"	"	4 "
3	"	"	5 "

1,614 homes, containing 2,110 children, or an average of 1.28. (Last year the average was 1.24.)

*Apprenticed Children.*

On the 5th April, 1899, there were 999 children (605 boys and 394 girls) under indenture in various parts of the Colony. 112 boys and 69 girls were discharged during the year. All the girls are at domestic service while the boys are employed by bakers, bootmakers, brickmakers, butchers, bookbinders, broom makers, coach builders, chemists, carpenters, dairymen, engineers, fruiterers, grocers, gardeners, grooms, hairdressers, messengers, mineral water manufacturers, orchardist, plumbers, printers, saddlers, tailors, vigneron.

These children are all wage-earners, and the cost of supervision, transit, and replenishing (in a few instances only) of outfits when under transfer, is the only expense to the State. The total 999, is the greatest number yet recorded.

The amount of wages collected and paid to apprentices who have served their terms of indenture since 1887, is shown hereunder:—

	£	s.	d.
Total collections to 5th April, 1879 ... ..	20,682	8	3
Amount of disbursements ... ..	16,995	18	5
To the credit of Trust Account, 5th April, 1899 ...	£3,686	9	10

*The*

*The Central Home, Paddington.*

The majority of the children received by the State Children Relief Board are admitted into the Receiving Depôt at Paddington immediately before being boarded out. Here the outfits are provided and the children remain temporarily until arrangements can be made for their distribution and transmission to the homes selected for them by the official in charge of this important duty. When facilities have been afforded for the disposal of grown girls, unfitted for domestic service, it is the Board's intention to admit the children direct to the Central Home and discontinue the practise of first sending young children to the Sydney Benevolent Asylum. Pending the re-organization of the Cottage Homes, however, the Board is unable to change the custom which now obtains. I pointed out in my last report that it was the wish of the Board to admit all children to the depôt, and the Royal Commission on Public Charities has since made a similar recommendation. When the other changes outlined have been made and extra accommodation has been provided the whole of the children received from the police and from the parents will be admitted to the depôt and sent to their future homes without delay.

The average daily number of children passing through the depôt during the past year was 26. The total cost of maintenance was £230 13s., and the capitation cost amounted to £8 17s. 5d. per annum only.

*Cottage Homes for Invalid Children at Mittagong and Parramatta.*

There are two cottages at Parramatta erected by the Government for the purposes for which they are now utilised; and seven (7) homes at Mittagong. The latter are private property used temporarily pending the erection of suitable cottages. As I have already referred to the administrative defects of these homes, I purpose dealing now with the statistics of the past year only under this heading.

These homes contain in all 143 inmates—twenty-nine males and 114 females.

The following tables furnish additional particulars:—

	Boys.	Girls.	Total.
Total number of children admitted to Cottage Homes to 5th April, 1899 ... ..	697	1,003	1,700
Total number of children discharged from Cottage Homes to 5th April, 1899 ... ..	668	889	1,557
Number in Homes on 5th April, 1899 ... ..	29	114	143
In Homes on 5th April, 1898 ... ..	33	114	147
Admitted during year ended 5th April, 1898 ... ..	42	90	132
	75	204	279
Discharged during year ... ..	46	90	136
In Homes, 5th April, 1899... ..	29	114	143
	Boys.	Girls.	Total.
Discharged:—			
To relatives ... ..	1	3	4
Boarded out... ..	38	74	112
Died... ..	1	0	1
Newington Asylum ... ..	0	2	2
Deaf and Dumb and Blind Institution ... ..	2	4	6
Over age ... ..	0	7	7
Hospital for Insane, Newcastle ... ..	2	0	2
Benevolent Asylum, Sydney ... ..	1	0	1
"    "    Newcastle ... ..	1	0	1
	46	90	136

Appended



Appended will be found a return showing the afflictions from which the children were suffering when admitted :—

Abscess ... ..	1	Skin disease ... ..	7
Bronchitis ... ..	6	Stomatitis ... ..	1
Chorea ... ..	1	Typhoid ... ..	1
Debility ... ..	21	Ulcers ... ..	1
Disease of spine ... ..	2	Urine, incontinence of ... ..	1
Diarrhœa ... ..	1	Ulcerated throat ... ..	2
Epilepsy ... ..	2	Whooping cough ... ..	8
Eczema ... ..	3	Weak intellect ... ..	7
Hip disease ... ..	3	Ulcerated tongue ... ..	1
Heart disease ... ..	1	Healthy children passing through	
Knee-pan, injury to ... ..	1	Home in transfer from one	
Impediment in speech ... ..	1	foster-mother to another ... ..	28
Measles ... ..	4	Deaf and dumb and blind children	
Ophthalmia ... ..	20	admitted for change of air ... ..	6
Prolapse of anus ... ..	1		
Pyrosis ... ..	1	Total ... ..	132

INSTITUTIONS from which Children treated at Cottage Homes for Sick Children have been received during the year.

Benevolent Asylum, Sydney.	Central Depôt, Paddington.	Industrial School, Parramatta.	Deaf, Dumb, and Blind Institution.	Total.
28	8	2	5	43

The balance of children received and treated were already under State control.

The average daily number of inmates during the year under review was 179, and the average cost per head £21 Os. 1½d.

TABLE showing the Ages at the date of admission of all Children who have been placed out by the State Children's Relief Board.

Under 1 year.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 6.	6 to 7.	7 to 8.	8 to 9.	9 to 10.	10 to 11.	11 to 12.	Over 12.	Total.
272	308	578	736	752	815	898	858	951	893	735	544	713	9,053
26	28	32	51	37	58	62	62	54	57	52	23	27	569
298	336	610	787	789	873	960	920	1,005	950	787	567	740	9,622

TABLE showing Religion (as recorded at Institution) of all Children hitherto placed out.

Salvation Army.	Church of England.	Roman Catholic.	Presbyterian.	Wesleyan.	Congregational.	Protestants, not otherwise specified.	Primitive Metho- dists.	Baptists.	Lutheran.	Greek.	Hebrew.	Church of Christ.	Christadelphian.	Unknown.	Total.
3	3,039	2,686	284	190	27	1,986	41	32	2	4	22	4	3	70	9,053
1	334	163	14	11	3	13	6	3	...	...	...	...	...	18	569
4	4,033	2,852	298	201	30	1,999	47	35	2	4	22	4	3	88	9,622

TABLE



Father in gaol, mother deserted	28
" " " in gaol	91
" " " in asylum with child	9
" " " in hospital	10
" " " insane	8
" " " sickly	16
" " " prostitute	40
" " " partially blind	8
" " " unknown	14
" " " vagrant	7
" insane, " insane	6
" " " contributes	3
" " " dead	24
" " " destitute	62
" " " deserted	32
" " " in asylum	1
" " " in gaol	6
" " " in service	1
" committed suicide, mother immoral	3
" unknown, mother contributes	15
" " " deserted	84
" " " destitute	125
" " " dead	71
" " " insane	34
" " " in gaol	66
" " " in hospital	44
" " " prostitute	68
" " " " and thief	11
" " " " (found in brothel)	14
" " " vagrant	22
" killed by mother, mother acquitted	3
" deserted, mother deaf and dumb	1
" " " supports 2 insane children	2
" unknown, " unknown	268
" " " " native of Islands	1
" " " drunkard	14
" " " cripple, with illegitimate family of 6	1
" " " simple	7
" helpless, " dead	7
" " " deserted	8
" " " insane	6
" " " in gaol	4
" " " destitute	12
" drunkard, " bedridden	5
" " " destitute	60
" " " deserted	19
" " " dead	67
" " " in gaol	15
" " " prostitute	11
" " " drunkard	33
" " " and cripple, mother drunkard	6
" " " mother in hospital	10
" cannot work, blind, mother destitute	2
" " " " cripple, mother bad character (illegitimate)	2
" " " " in gaol	3
" " " " deserted	10
" " " consumptive, mother destitute	3
" blind, mother dead	4
" " " in hospital	2
" cannot work, deformed, mother prostitute	3
" " " destitute, mother ill	26
" " " " dead	13
" " " broken ankles, mother deserted	1
" " " in asylum, mother deserted	8
" " " " in asylum	4
" " " destitute " deserted	12
" " " mother destitute	10
" " " ill, mother ill	15
" " " in hospital, mother insane	27
" " " " destitute	39
" " " invalid, mother doubtful character	1
" " " in hospital, mother unknown	7
" " " paralysed, mother deserted	6
" " " consumptive, mother in asylum	7
" " " in asylum, mother bad repute	8
" " " " prostitute	7
" " " cripple, mother dead	2
" " " in asylum, mother imbecile	1
" " " consumptive, mother dead	11
" " " " mother has other children	1
" " " one arm, mother drunkard	1
" " " subject to fits, mother dead	5
" " " hip disease, mother dead	2
" " " mother dead	37
" " " " deserted	3
" " " " destitute	34
" " " " bad character	7
" " " in hospital, mother in gaol	2
" " " blind, mother deserted	5
" " " in hospital, mother drunkard	2
" " " consumptive, mother delicate	4
" cannot work, sickly, mother sickly	11
" " " in hospital, mother in hospital	16
" contributes, mother dead	182
" " " deserted	38
" " " drunkard	43
" " " insane	7

Father contributes, mother in gaol .....	12
"  "  "  in gaol (illegitimate) .....	1
"  "  "  prostitute .....	30
"  "  "  unknown .....	18
"  "  "  sickly .....	7
"  "  "  ill-treats child .....	15
"  unemployed, mother destitute .....	11
"  cannot support, out of work, mother drunkard .....	17
"  "  unemployed, mother deserted .....	130
"  "  "  "  dead .....	359
"  "  "  "  ill .....	39
"  "  "  "  in asylum .....	73
"  "  "  mother ill .....	5
"  "  "  "  insane .....	35
"  "  "  "  cannot support .....	144
"  "  "  "  dead .....	27
"  "  "  of dissolute habits, mother prostitute .....	11
"  "  "  French convict, mother dead .....	5
"  "  "  has 15 children, mother dead .....	2
"  ill, mother dead .....	19
"  "  "  destitute .....	18
"  "  "  in hospital .....	10
"  "  "  supports 2 children .....	2
"  cannot support, has 7 children, mother dead .....	1
"  "  "  has large family .....	1
"  "  "  an actor, mother prostitute .....	1
"  "  "  keeps 2 children, mother insane .....	1
"  "  "  unemployed, mother in gaol .....	4
"  "  "  of dissolute habits, mother dead .....	9
"  "  "  children uncontrollable, mother dead .....	6
"  "  "  an Indian, mother unknown .....	2
"  at sea, mother in hospital .....	10
"  "  "  deserted .....	3
"  "  "  immoral .....	4
Mother contributes .....	3
"  has bad leg .....	1
"  in gaol .....	4
"  in asylum .....	10
"  insane .....	1
"  drunkard .....	4
"  half-caste .....	1
"  "  living with man at Narrabri .....	1
"  "  in service, another illegitimate child .....	2
"  confined of another illegitimate child .....	5
"  destitute .....	3
Father ill treats mother, mother pregnant .....	2
"  "  "  "  deserted .....	0
"  cannot control, mother dead .....	4
Parents keep a brothel .....	4
Child from Dublin Orphan Asylum .....	1
Father attempted to outrage child, mother in hospital ..	1
Parents acquitted of murder, mother in gaol for sheep-stealing ..	1
Parents unable to control .....	95
Father bad character, mother dead .....	14
"  "  "  "  bad character .....	9
"  killed child and stabbed wife .....	3
"  neglects child, mother insane .....	4
"  too old to work, mother unknown .....	2
"  in hospital, mother destitute .....	25
"  "  "  "  drunkard .....	5
"  "  "  "  dead .....	2
"  "  "  "  in gaol .....	1
Foundlings .....	124
Miscellaneous .....	196
<hr/>	
Total .....	9,622

## PART III.

## STATE CHILDREN RELIEF ACT OF 1896.

*(Children cared for by their Mothers and partly supported at the Government expense.)*

The statistics published in my last annual report show that on the 5th April, 1898, 770 mothers were in receipt of cash allowances to enable them to provide for the support of 2,422 children. Including original applications received since that date, and cases in which assistance had previously been authorised and were again brought under

under review, the State Children Relief Board during the past year dealt with 1,540 requests for cash assistance, with the following result:—

385 were granted.  
 198 were refused.  
 306 were not varied.  
 137 were increased.  
 223 were reduced, mostly owing to the children being over age, and  
 71 were postponed for various reasons.  
 220 were discontinued.

On the 5th April, 1899, 935 widows and deserted wives were in receipt of cash allowances paid by the Government.

The following is a statement of their classification:—

674 Widows.  
 179 Deserted wives.  
 39 Husbands insane.  
 18 Husbands in gaol.  
 17 Husbands in Asylums for the Infirm and Destitute.  
 8 Husbands in hospitals.

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935 Total.

During the year 1,307 children were admitted to control and 845 discharged. The total number now on the books, inclusive of 2,422 under control on 5th April, 1898, is 2,884. The ages are as under:—

Under 1 year.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 6.	6 to 7.	7 to 8.	8 to 9.	9 to 10.	10 to 11.	11 to 12.	Over 12.	Total.
57	158	196	229	249	293	319	317	328	306	279	153	...	2,884
Discharges.													
15	13	41	44	59	62	59	64	69	57	65	61	236	845

The following rates are being paid for children now under control:—

5s.	4s. 6d.	4s.	3s. 9d.	3s. 6d.	3s.	2s. 6d.	2s.	1s. 6d.	1s.	Total.
23	2	21	4	30	492	922	1,081	286	20	2,884

The children on the books belong to the religions stated below:—

Church of England.	Roman Catholic.	Protestant.	Presbyterian.	Wesleyan.	No religion stated.	Primitive Methodist.	Congregational.	Baptist.	Salvation Army.	Methodist.	Plymouth Brethren.	Wesleyan Methodist.	Protestant Catholic Apostolic.	English Episcopalian.	Jews.	Greeks.	Christian Church of Christ.	Total.
1,137	913	243	150	145	142	43	42	18	18	9	5	4	3	3	9	...	...	2,884
Discharged during year ended 5th April, 1899.																		
381	243	68	39	46	17	17	11	9	1	1	...	2	...	...	...	6	4	845

## PART IV.

## BOARD MEETINGS, HONORARY VISITING STAFF, &amp;c.

*Board Meetings.*

There were twenty-eight (28) sittings of the Board during the year, viz., 12 general, 14 adjourned, and 2 special, at which the members attended as follows:—The Hon. Sir Arthur Renwick, Kt., M.D., M.L.C., President, 25; Mrs. Garran, 25; Mrs. Slattery, 17; Mrs. Grimshaw, 17; Lady Manning, 16; Lady Renwick, 14; Hon. W. J. Trickett, M.L.C., 9; Mrs. McMillan, 8; Mrs. Goodlet, 4; and the Hon. L. F. Heydon, M.L.C., 4.

In addition to the meetings specified above, the Finance Committee meets in advance each month, and examines and certifies to the claims to be submitted for payment at each general meeting of the Board; and the lady members, in rotation, inspect monthly the Cottage Homes for invalid children at Parramatta and at Mittagong.

*Appointments, resignations, and leave of absence.*

On the 20th July, Mrs. Goodlet resigned her position as a member of the Board, and on August 29th Mrs. Grimshaw was appointed to the vacant position.

On the 28th November, Lady Manning was granted six months' leave of absence; and Mrs. McMillan's leave was extended for a further term of three months.

Lady Renwick resigned her seat on the Board on the 30th January, Mrs. Ed. Barton being appointed in her stead.

*Lady Visitors.*

As is now well known, the State homes in various parts of the Colony are placed under the supervision of lady visitors, whose voluntary services on behalf of the children cannot be too highly appreciated. The usual list is appended hereto, viz.:—Armidale, Mrs. Allingham, Mrs. J. J. Bliss; Albury, Mrs. E. Edmondson, Mrs. J. Kennedy, Mrs. C. Spencer; Auburn, Mrs. C. Gannon, Miss Darmody; Annandale, Miss O'Brien; Bowral, Mrs. J. C. Bagot; Bega, Mrs. E. Bland; Braxton, Mrs. J. A. Tulloch, Mrs. Bercini, Mrs. E. Smith; Bundanoon, Mrs. Osborn; Bathurst, Mrs. Marriott, Mrs. A. Reading, Miss Newman, Miss Meagher, Miss C. White; Berrima, Mrs. G. Sheppard, Mrs. W. McCourt; Bethungra, Mrs. M. Sawyer; Baulkham Hills, Mrs. W. M. Best; Burwood, Mrs. Ireland; Berry, Mrs. E. Morris, Mrs. English; Boolong, Miss Grant; Burrowa, Mrs. C. Robinson, Mrs. J. H. Boucher; Barraba, Mrs. Kidd; Braidwood, Mrs. O'Brien, Mrs. Bayley; Bulli, Mrs. Tate; Balmain, Mrs. J. Dixon, Mrs. Pole, Mrs. W. McKenzie, Mrs. G. Boulton, Mrs. Venables; Brookfield, Mrs. S. Carlton; Bringelly, Mrs. Mayne; Bowan Park, Mrs. S. M. Thomson; Ballina, Mrs. W. E. Evans; Blacktown, Mrs. E. Pearce, Miss Middleton; Badgery's Creek, Mrs. C. J. Swann; Bondi, Mrs. F. Marsh; Botany, Mrs. Reeve; Cootamundra, Mrs. E. Barnes, Mrs. W. H. Mathews, Mrs. E. J. Webster; Camden, Miss Raymond; Cassilis, Mrs. M. Traill; Cambewarra, Mrs. Brennan; Cessnock, Miss M'Donald; Campbelltown, Mrs. J. Kidd, Mrs. J. Loney; Crookwell, Miss Olivia Smith; Cobargo, Mrs. E. Tarlinton; Cobbitty, Mrs. G. H. Allnutt; Camperdown, Mrs. E. Barnier, Mrs. B. Levey, Mrs. W. Hamblin, Mrs. Preston; Canterbury, Mrs. Wilson; Chatswood, Mrs. Middleton; Croydon, Miss M. Stack; Corrimal, Miss M. Hicks; Casino, Mrs. H. Lumsdaine; Canberra, Mrs. P. G. Smith; Cowra, Mrs. R. S. Smith,  
Mrs.

Mrs. W. J. Walker ; Carcoar, Mrs. J. Links ; Cooma, Mrs. L. Marks ; Deniliquin, Mrs. H. M'Collough, Mrs. A. H. Noyes, Mrs. Holt ; Dungog, Mrs. Waller, Mrs. F. A. Hooke ; Dalton, Mrs. H. T. Beresford ; Darlinghurst, Mrs. J. B. Christian ; Dubbo, Mrs. B. Soane ; Forbes, Mrs. Reymond ; Fairfield, Mrs. B. Dale, Mrs. A. C. West ; Flemington, Mrs. H. C. Kent ; Goulburn, Mrs. Ross, Mrs. Oliver, Mrs. A. Chisholm, Mrs. Handcock Burkitt, Mrs. W. Chisholm, Mrs. De Lauret, Mrs. M'Killop, Mrs. E. Gillespie, Mrs. Jessop, Mrs. Craig, Mrs. T. M'Killop, Mrs. George Sheaffe, Mrs. E. Kingsmill, Mrs. M. Fleming ; Gladesville, Mrs. Lumsdaine, Mrs. M. F. Makinson ; Guildford, Mrs. Gurney ; George's Plains, Mrs. M. Young ; Granville, Mrs. E. B. Docker, Mrs. T. Irons, Mrs. R. F. Ritchie ; Gunning, Mrs. Saxby ; Grcsford, Mrs. R. B. Boydell ; Gerringong, Miss M. Folcy, Miss Devery ; Gosford, Mrs. Fielder, Mrs. J. K. Brown ; Gordon, Mrs. Richardson ; Grafton, Mrs. M. A. Lee, Mrs. E. A. Ebsworth, Mrs. A. Saunders, Mrs. R. Lipman, Mrs. T. Creagh, Mrs. J. S. M'Kittrick ; Grabben Gullen, Mrs. J. Downey ; Ginninderra, Mrs. K. M. Crace ; Glenbrook, Mrs. E. Scragg ; Glen Innes, Mrs. H. Wrigley ; Gunnedah, Mrs. W. L. B. Brown ; Gerogery, Miss M. Vile ; Hunter's Hill, Mrs. R. Lenehan, Mrs. A. F. Lenehan ; Hay, Mrs. Jolmson, Mrs. Lavender ; Homebush, Mrs. H. C. Kent ; Hoxton Park, Mrs. F. W. Biden ; Hillgrove, Mrs. B. Carry ; Harden, Mrs. F. Brady ; Inverell, Mrs. A. Callaghan, Mrs. J. W. Anderson ; Junee, Mrs. Studds ; Jamberoo, Miss E. Colley ; Kempsey, Mrs. Minnuet ; Kurrajong, Mrs. M. Gray ; Katoomba, Miss K. Kelly ; Kelso, Mrs. G. S. Oakes ; Kangaloon, Mrs. W. J. Brenning ; Kangaroo Valley, Miss E. O'Sullivan, Miss M. Guihen ; Kogarah, Mrs. T. Murray, Mrs. J. Vogel ; Liverpool, Mrs. E. J. Ashcroft, Mrs. E. Simpson ; Leichhardt, Mrs. J. J. Dougherty ; Lambton, Mrs. M. Turnbull ; Long Reach, Mrs. A. J. Henderson ; Largs, Mrs. Warden ; Lismore, Mrs. N. J. Simmons ; Lochinvar, Miss Kavenagh ; Lithgow, Mrs. M. Ryan, Mrs. W. Stewart ; Maclean, Mrs. M'Innes ; Maitland, Mrs. M. Smith, Mrs. W. G. Lipscombe, Mrs. P. Rafferty, Mrs. J. B. Rooney, Miss E. Tucker, Miss M. Enright, Miss A. Healey ; Menangle, Mrs. Onslow ; Morpeth, Mrs. F. H. Thomas ; Murrumburrah, Miss M. A. Bourke ; Mudgee, Mrs. E. J. Willis, Mrs. M. Crossing ; Marulan, Mrs. M. E. Shaw ; Moruya, Mrs. Williams ; Milton, Miss Kendall ; Marrickville, Mrs. W. W. Clarke, Mrs. A. E. Perkins ; Molong, Mrs. W. E. Panton, Mrs. Alldis ; Muswellbrook, Mrs. W. S. Wilson, Miss Luke ; Mewether, Mrs. Berkeley ; Murrumbateman, Mrs. M. M'Clung ; Manly, Mrs. S. C. Douglas ; Mosman, Mrs. E. M. Sayers ; Merella, Mrs. M. Dalgleish ; Newcastle, Mrs. Cuthbertson, Mrs. M. Timbury, Mrs. M'Donnell ; North Sydney, Mrs. T. O'Sullivan, Mrs. E. M. Clark, Mrs. N. Greenwood ; Newtown, Mrs. R. Scott, Mrs. J. G. Clegg, Mrs. J. Lee, Mrs. Goldsmith, Mrs. Painter, Mrs. H. N. Howe, Mrs. Taylor, Mrs. G. Douglas, Miss C. Healey ; Narrandera, Mrs. E. Elwin ; Nowra, Mrs. H. M. Trickett ; Orange, Mrs. J. Dalton ; Plattsburg, Mrs. M. A. Froome ; Penrith, Mrs. T. Woodriff, Miss A. Leithbridge ; Picton, Mrs. Gibson, Mrs. Sheppard, Mrs. W. R. Antill ; Prospect, Mrs. M. Remington ; Pymont, Mrs. S. Fuller, Mrs. H. Holliday ; Parramatta, Mrs. W. J. Gunther, Mrs. Inglis, Mrs. Holt, Mrs. A. Quirk, Mrs. R. L. Fitzpatrick ; Parkes, Mrs. E. Ranford ; Peak Hill, Mrs. Richard Holmes ; Quirindi, Mrs. M. Allen, Mrs. E. J. Dawson ; Queanbeyan, Mrs. Willans ; Raymond Terrace, Mrs. J. Richardson ; Redfern, Mrs. Boyce ; Richmond, Mrs. Onus, Miss Onus ; Rooty Hill, Mrs. R. Lister ; Rouse Hill, Mrs. M. Pearce, Mrs. E. A. Rouse, Mrs. E. J. Wilson ; Rookwood, Mrs. A. Gormley, Miss Gulliver ; Robertson, Miss A. J. Hayter ; Riverstone, Mrs. A. E. Faviell ; Rockdale, Miss E. Burns, Miss J. Walz ; Sutton Forest, Mrs. M. J. Parnell ; Stroud, Mrs. Rushforth ; Stockton, Mrs. S. W. Smith ; St. Peter's, Mrs. E. D. Madgwick ; Smithfield, Mrs. J. E. Wilkins ; Singleton, Mrs. Moylan, Miss Snelson ; Shoalhaven, Mrs. Thompson ; Scone, Miss E. Hopper ; Tirianna, Mrs. E. H. Glover ; Tamworth, Mrs. Middleton ; Tumut, Mrs.

Mrs. A. M. Brown; Toongabbie, Mrs. E. Perry, Mrs. F. Northcott; Ultimo, Mrs. R. S. Paterson; Windsor, Mrs. J. B. Johnston, Mrs. Hall, Mrs. W. Dean, Mrs. J. C. Fitzpatrick, Mrs. Holland, Miss Hall; Wollongong, Mrs. M. Fairweather, Mrs. A. Mackay; Wallsend, Mrs. Neilson; Waverley, Mrs. Best; Wallerawang, Mrs. Abbott; Wagga Wagga, Mrs. G. Coleman; Windeyer, Mrs. Mallon; Wiseman's Ferry, Miss A. Wilson, Mrs. J. T. Marx; Woodville, Mrs. Graham; Wybong Creek, Mrs. Cox; Wentworth, Mrs. W. B. Grang, Mrs. M. E. Morgan; Windellama, Mrs. Calthorpe; Wahroonga, Mrs. J. J. Toohey; Wyalong, Mrs. E. S. Burton; Warren, Mrs. K. Parker; Wilberforce, Miss A. Simpson; Woollahra, Mrs. F. C. Irving; Yarrunga, Mrs. Throsby; Young, Mrs. Heeley, Mrs. M. Byrne; Yass, Mrs. B. Sheeby, Mrs. H. Faunce.

I regret to have to announce the death of Mr. James D. Prentice, who ably assisted the State Children Relief Board by acting during the past fifteen years as Secretary to the Local Ladies' Committee at West Maitland.

#### CONCLUDING REMARKS.

In conclusion, I have much pleasure in conveying the thanks of the members of the Board to Mr. Critchett Walker, C.M.G., the Principal Under Secretary, to Mr. Fosbery, the Inspector-General of Police, Sydney, and to Mr. George Phillips, Commissioner of Police, West Australia, for the valuable assistance rendered to the Department during the year.

I have, &c.,

ARTHUR RENWICK,  
President.



## APPENDIX A.

## OPINIONS of Lady Visitors and Public School Teachers upon the operations of the Boarding-out System.

Mrs. W. R. Antill, Picton :—

The boarding-out system is very successful in this district. The children are happy and well looked after by their guardians, and are treated as their own ; generally they are healthy, and nearly all are out on small farms.

Mrs. J. W. Anderson, Inverell :—

So far as I have observed, the boarding-out system is very satisfactory. Since I have been lady visitor there are only two children living with a guardian, and they appear very happy and well cared for, and compare most favourably with those under care of parents.

Mrs. Alldis :—

My experience of boarding out State children has been fairly favourable. The children being unfortunate in their earlier career, do not always show to advantage, and in whatever light regarded they usually present some regrettable aspects, but in "making the best of bad cases" I believe the State approaches as near to success as can be reasonably hoped for. I am satisfied that occasional visits from authorised State inspectors has a good effect, and gives more weight and influence to local committees. My confirmed experience is, if children be domiciled with tender-hearted, reputable persons, and a fair watch kept, the best that can be done for them is achieved.

Mrs. E. Barnier, Camperdown :—

I find, in going from house to house, that the State children are as well, and in some cases better cared for than children who are with their mothers.

Mrs. J. J. Bliss, Armidale :—

I think that the boarding-out system is an excellent one. The children under my supervision are all happy and healthy, and are really loved by their guardians.

Miss M. A. Bourke, Harden :—

I have visited the State children under my supervision, and find them thoroughly happy and well cared for.

Mrs. F. D. Brady, Harden :—

I have visited the State children under my supervision, and find them thoroughly happy and well cared for.

Mrs. Brennan, Cambewarra :—

The boarding-out system works very satisfactorily in my district. I have had no complaints from either the children or their guardians. The boys are all on farms, and appear very happy and contented. I have three families under my supervision, with their mothers acting as guardians to them, and the assistance given them is of very great help.

Mrs. K. Brenning, Kangaloon :—

The boarding-out system is worthy of encouragement, especially so in the country, where—by its application—the children obtain fresh air and wholesome food.

Mrs. A. M. Brown, Tumut :—

At present there are only two State children in my district, but I see a great improvement in them since they came. They are healthy, quite contented, and most comfortable in their home, and are well looked after.

Mrs. M. Byrne, Young :—

Some of the State children recently in this district were hard to manage, being self-willed and determined ; but my experience of the present year is that the children are well cared for, no complaints having been made by guardians or children. Considering how these poor children have been reared previous to being taken by the Department, wonderful reformation has been made in them.

Mrs. Calthope, Windellama :—

The State children under my supervision are well cared for, and the best relations exist between children and guardians. The children compare favourably with those under their parents' control.

Mrs. J. B. Christian, Elizabeth Bay :—

I am happy to express my entire satisfaction with the boarding-out system in this district. I think, as a rule, the children placed with guardians are better cared for than those boarded out to their mothers.

Mrs. E. M. Clark, North Sydney :—

As it applies to the children in this district, I consider the boarding-out system an excellent one. It ensures to the dependent children of the State the comforts and advantages of a home life, while in the case of deserving widows and deserted wives it enables them to keep their homes together and to have their little ones under their own immediate supervision.

Mrs. J. G. Clegg, Newtown :—

In reply to your request, I consider the introduction of the boarding-out system a national benefit, seeing that the destitute orphans are brought up with home surroundings, including all its attendant blessings. The constant supervision of such homes and orphans by the lady visitors all over the Colony must be a permanent benefit to the State, and well repays the nation for the money so expended, and, with God's blessing, those children will grow up good citizens ; and, so far as human foresight can go, I consider the system one of the best extant. I further wish to state that all the State children in my district are clean, healthy, and appear quite happy in their adopted homes, and I have very great pleasure in stating that there appears to be a genuine mutual attachment for good between the children and their adopted parents.

Mrs. B. Dale, Fairfield :—

I think the boarding-out system works very well. The guardians seem very fond of and attentive to their little charges.

Mrs. J. Dalton, Orange :—

As far as my experience goes, the children who are boarded out in Orange have much better homes and seem to be much happier than many who are living with their parents.

Miss M. Darmody, Auburn :—

The children placed out with guardians in the Auburn district compare favourably with those who are with their mothers. They appear to be quite contented, and are much attached to their guardians.

Mrs.

Mrs. E. J. Dawson, Quirindi :—

When I saw the one child in this town under my supervision it was healthy and well clothed, and the boarding-out system, in this instance, I consider to be quite satisfactory.

Miss M. Devery, Gerringong :—

The boy who comes under my supervision is thoroughly satisfied with his home. The guardians are charitable and kind, and there have been no complaints made on either side.

Mrs. G. Douglass, Newtown :—

I think the boarding-out system is an excellent one. All the children who are placed within my district are well cared for.

Mrs. J. Downey, Grabben Guillen :—

The majority of the State children in this district compare favourably with children residing with their parents. As a rule, they are nicely dressed when appearing at church or other public place, and they are well fed and rarely overworked. Some of the guardians are really fond of the children, and treat them not only kindly, but affectionately.

Mrs. E. Elwin, Narrandera :—

The children under the care of their parents in this district are, generally speaking, well cared for

Mrs. M. Fairweather, Wollongong :—

All the children under my supervision in this district are well cared for, their guardians showing sympathy and kindness towards them. They compare very favourably with children under their parents' care.

Mrs. A. E. Faviel, Riverstone :—

The boarding-out system seems to answer well in this district. The children appear well taken care of and are healthy and happy.

Mrs. C. Gannon, Auburn :—

I think the boarding-out system is very satisfactory. Deep affection exists between the guardians and the children, and the latter compare favourably with children residing with their own parents.

Mrs. Gibson, Upper Picton :—

The State children with whom I am acquainted are well cared for, and treated by their guardians as if they were their own, and the children are fond of their guardians.

Mrs. Gormley, Rookwood :—

I have every reason to be pleased with the way State children and their guardians get on together in this district; they compare very favourably with children under their own parents. I think the system is a great blessing to the majority of the children.

Mrs. M. Gray, Kurrajong :—

With regard to my opinion of the working of the new rule, viz., the boarding out of the children to their own mothers, my opinion is this: It is a great boon to both parents and children, and, so long as the visitors see that the privilege is not abused, it must result in great and lasting good.

Miss M. Guihen, Kangaroo Valley :—

As far as my experience goes, the children boarded out by the State are better cared for than many children living with their parents. Those in my district are certainly happy and very well cared for.

Miss A. J. Hayter, Robertson :—

The State children under my supervision are well cared for, and the best relations exist between children and guardians.

Miss A. Healy, East Maitland :—

The State children under my supervision appear to be happy and contented with the treatment they receive from their guardians.

Mrs. D. Heeley, Young :—

In reference to the boarding-out system, I am pleased with what I have seen of the kindness and attention paid to the children. Many of them look better cared for than those who are with their mothers.

Mrs. A. J. Henderson, Long Reach :—

I consider the boarding-out system to be a great success. The children seem happy and contented, and, in my opinion, are in many instances better cared for than some who are living with their parents.

Mrs. M. Irons, Granville :—

I am happy to say I believe the boarding-out system is in nearly every case coming under my own notice very successful, and the children as happy and well cared for as they would be in their own homes; of course, some of the foster-mothers are not so desirable as others, but in many cases the children and their guardians are quite attached to each other.

Miss K. Kelly, Katoomba :—

The boarded-out children in this district compare very favourably with other children in general appearance. I think the boarding-out system an excellent one.

Mrs. A. Mackey, Wollongong :—

The homes I have seen have been very satisfactory. The State children seemed to be as much at home as the children belonging to the house. I also saw two of the schoolmasters in the district, and had a good report of the children.

Mrs. L. Marks, Cooma :—

I think the boarding-out system is an excellent one. All the children under my supervision have comfortable homes and are well treated. The guardians faithfully perform their duty to the children in their care.

Mrs. F. Marsh, Bondi :—

I think the boarding-out system is in every way satisfactory. The relations existing between children and their guardians are both pleasing and satisfactory, and the children compare favourably with those under parental control.

Mrs. Mayne, Bringelly :—

The results of boarding out children in this district are distinctly good; in every instance the children look healthier and happier than on arrival, and seem well cared for.

Mrs. Middleton, Willoughby :—

I have been deeply impressed with the satisfactory results of the boarding-out system. The State children in the Willoughby district are, so far as I can judge, truly happy and well cared for.

Mrs.

Mrs. M. E. Morgan, Wentworth :—

The boarding-out system acts admirably. The children always appear clean and happy.

Mrs. E. Morris, Berry :—

The State children who are boarded out and apprenticed in this portion of Shoalhaven district have remarkably good homes; they are well clothed, and are apparently healthy and contented. The boarding-out system is an excellent idea.

Mrs. M. McClung, Murrumbateman :—

I think the boarding-out system very satisfactory. The children are well treated by their guardians, have the benefit of happy, healthy home life, and should become decent members of society.

Mrs. W. M'Court, Berrima :—

I am satisfied that the boarding-out system works well; the homes have been judiciously selected; the children, as a rule, are well cared for, and in some instances they are looked upon as members of the family.

Mrs. C. G. M'Jones, Maclean :—

The admirable system of boarding out children instead of housing numbers in an institution is, as far as my knowledge goes, acting beneficially for all. The children behave well and seem quite happy. They are well fed, clad, and cared for. The help afforded under the amended Act to poor widows to maintain their little ones in their own homes is a wise and humane measure, and proves a boon to the hard-working mothers. To my mind a better scheme could not be conceived.

Mrs. W. P. Northcott, Wentworthville :—

The State children under my supervision are in comfortable homes, are carefully taught right from wrong, and are as well advanced, both in day and Sunday school work, as other children, and in no way differ from those among whom they live. They seem to be on perfectly happy terms with their guardians.

Mrs. M. O'Brien, Braidwood :—

The boarding-out system in this district is a great success. The children all look well and happy, are in good health, and the guardians treat them as their own.

Mrs. S. Oliver, Goulburn :—

I am very pleased with the system of boarding out State children to guardians. The children seem happy and contented.

Mrs. Onus, Richmond :—

During the past year I have frequently seen the children boarded out in this district. They appear to be well looked after, are clean and healthy, and seem to be quite content with their treatment. I think the system of your Department leaves little room for comment.

Miss E. O'Sullivan, Kangaroo Valley :—

The State children boarding out in the district under my supervision are neatly dressed and apparently well cared for. The relations existing between the children and their guardians seem to be very satisfactory. The children appear to be as well cared for as those with their parents.

Mrs. B. S. Paterson, Ultimo :—

In my district there are very few children with guardians, but the few there are seem to me to be under better training than most of those with their mothers.

Mrs. C. Perry, Wentworthville :—

The boarding out of the children works very well, and secures a home influence superior to any more public mode of caring for the children.

Mrs. E. Ranford, Parkes :—

The State children under my supervision always appear quite happy and contented, and have the appearance of being well cared for.

Mrs. A. Reading, Bathurst :—

I think the boarding-out system is a good one. The children under the care of guardians receive the same attention, and are apparently quite as happy, as those under the control of their parents.

Mrs. R. Scott, Newtown :—

All the State children under my supervision have comfortable homes, and are well cared for. In most cases they are quite as happy and contented as children with their own parents.

Mrs. E. Scraggs, Glenbrook :—

From my observation as lady visitor in this district, I think that the State children compare favourably with those living with their parents. The relations existing between the children and their guardians seem satisfactory. I regard the system as an ideal one.

Mrs. Shaw, Marulan :—

I consider the boarding-out system an excellent one, and that the children are far better brought up in separate homes than under the old barrack system.

Mrs. G. Sheaffe, North Goulburn :—

All the boarded-out children visited by me in this district seem very happy and well cared for. I have never had a complaint from a child, and in many homes the children are spoken of with great affection. I should think, from what I have seen, that they are quite as well cared for as children of the same class living with their parents.

Mrs. E. Simpson, Liverpool :—

The State children in my district have comfortable homes, are well clothed, and appear very happy with their guardians. They compare favourably with children in the care of their parents. I think the boarding-out system an excellent one.

Miss Simpson, Wilberforce :—

The State children under my supervision are well provided for, and, as far as I can judge, little or no difference exists between their treatment and that of the foster-parents' own children.

Mrs. B. Soane, Dubbo :—

The boarding-out system is very successful in Dubbo. The children placed out are very well cared for. In cases when I have visited them quite unexpectedly, I found them, as a rule, clean and well fed.

Miss O. Smith, Crookwell :—

All the children placed under my supervision are doing well, and attend their respective schools regularly. They appear to be treated by their guardians in the same way as those who are under the care of their parents.

Mrs.

Mrs. J. Vogel, Kogarah :—

From careful observation and inquiry, I have formed the opinion that the boarding-out system is the best that could be adopted in the interest of the children. It affords them comforts of a home, which could not be obtained in an orphanage or similar institution.

Mrs. A. West, Fairfield :—

The children boarded out in my district compare favourably with those under the care of their parents, and it is evident that sympathy and affection exist between the children and their guardians.

Miss Wilson, Wiseman's Ferry :—

The State children under my supervision appear to be well cared for, and good feeling exists between guardians and children. I consider the boarding-out system an excellent one.

The Superior Public School Teacher, Annandale :—

I have formed a most favourable opinion of the system over which you preside. The State children under my supervision are well looked after, and I am sure that no stranger could pick them out from among the other children in the school, by reason of inferior appearance, clothing, or general physique.

The Public School Teacher, Arncliffe :—

My experience of the system in operation under the Board has been such as gain my warm commendation. The children under the system in this school compare very favourably with other children.

The Public School Teacher, Bondi :—

I think the system a good one. The State children compare favourably with the other children under my supervision.

The Public School Teacher, Bowral :—

1. The system, so far as I have had opportunities of judging, works well, the children being under as healthy an influence as can be expected. They are kept clean and apparently well fed.

2. Their conduct in school is such as render them undistinguishable from children having their parents' supervision, and, on the whole, gives much satisfaction.

The Public School Teacher, Bandanook :—

I have much pleasure in again testifying as to the good results of the boarding-out system. The children seem thoroughly at home, and get quite fond of their guardians. As an example, one child in my district was transferred to another person, and was present when they left the station. Both the child and guardian shed tears at parting. The other children in my district appear very happy in their homes, and are treated as belonging to the family.

The Public School Teacher, Croydon :—

The State children attending this school are well looked after. They are tidy, clean, and regular.

The Public School Teacher, Canley Vale :—

The children that have come under my notice seemed well cared for; compare favourably with other children, both as regards demeanour and progress in study; and the fact of their being "State children" does not weigh unfavourably in the eyes of other children. In my opinion the system is the best that could be devised.

The Head Teacher, Superior Public School, Dubbo :—

The State children attending this school compare very favourably with the other pupils of the school. They are always well and neatly clothed, and appear to be well cared for. Their conduct gives evidence of good home-training. I consider the boarding-out system, so far as my experience goes, to work very satisfactorily.

The Public School Teacher, Jamberoo :—

The children all seem contented and happy, well nourished, and suitably clothed. They attend school fairly regularly, and compare favourably with the other children in intelligence and all other respects. Of course, I know that a great deal depends upon the people under whose care they are placed, and could give individual instances in which the children are exceptionally well cared for. My honest conviction is that all are treated with due consideration and care.

The Public School Teacher, Newcastle South :—

The State children attending my school compare favourably with the other children of the school in regard to regularity of attendance, cleanliness, and conduct. In point of fact, it is difficult to distinguish them from the other pupils of the school, and they seem contented and happy.

The Public School Teacher, Penrith :—

The children seem to be well cared for, and, so far as my experience goes, attend regularly at school. The boarding-out method is an excellent one, and forms the best substitute for parental love and care. Too great caution cannot be exercised in the choice of guardians.

The Public School Teacher, Raymond Terrace :—

From my experience of the system, and from my observation of the work in the surrounding districts of Miller's Forest and Nelson's Plains, where a number of these children are kept, I believe the Act to be one of the best measures ever passed in the Colony. It is of vast benefit to the children, as it gives them a home where they are in most cases kindly treated, and are taught to become honest and hard-working citizens of the country; and it relieves the State of a difficult and troublesome duty—the care of so large a number of neglected children. Now that a strict supervision is exercised over the guardians of these children by the Department, through its inspectors and lady visitors, I think the system is all that can be desired.

The Public School Teacher, Rookwood :—

The State children attending this school are well clothed, clean, and tidy in appearance. They are also well behaved and attend regularly, and more than favourably compare with many of the pupils who have parents to take care of them.

The Public School Teacher, St. Peters :—

My experience concerning boarded State children is that they compare favourably with the children of working people; they are apparently well kept, and differ in no wise from the other pupils attending school.

[Map]





**MAP**  
OF  
**NEW SOUTH WALES**  
SHOWING THE DISTRICTS IN WHICH STATE CHILDREN  
ARE PLACED OUT.  
Scale 32 Miles to 1 Inch

NOTE, Railways shown thus

1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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# FOURTH REPORT

OF THE

## ROYAL COMMISSION ON PUBLIC CHARITIES;

TOGETHER WITH

MINUTES OF EVIDENCE AND APPENDICES.

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## HOSPITALS OF THE COLONY.

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APPOINTED 10<sup>TH</sup> NOVEMBER, 1897.

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*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

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## Commission.

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen,  
Defender of the Faith, and so forth,—

To Our Trusty and Well-beloved—

JOSEPH BARLING, Esquire, Chairman of the Public Service Board, and one of Our Justices of the Peace of Our Colony of New South Wales, Associate of the Institution of Civil Engineers;

GEORGE ALEXANDER WILSON, Esquire, a Member of the Public Service Board, and one of Our Justices of the Peace of Our said Colony; and

JAMES POWELL, Esquire, Deputy Member of the Public Service Board, and one of Our Justices of the Peace of Our said Colony,—

Greeting:—

KNOW Ye, That We, reposing great trust and confidence in your ability, zeal, industry, discretion, and integrity, do, by these presents, authorise and appoint you, or any two of you, as herein-after mentioned, to make a diligent and full inquiry into, and report upon the methods of carrying on Government Charitable Institutions, and the way in which Grants of public money to charitable objects under the control of the Government are administered, including Grants for the Aborigines; and to report also upon the methods of administration and relief in force in all charitable organizations which receive aid from the public Treasury, including the Hospitals of the Colony; with further power to suggest desirable changes in the existing state of affairs, with a view to placing the expenditure of public moneys in such directions upon a more satisfactory footing: And We do, by these presents, grant to you, or any two of you, at any meeting or meetings to which all of you shall have been duly summoned, full power and authority to call before you all such persons as you may judge necessary, by whom you may be better informed of the truth in the premises, and to require the production of all such books, papers, writings, and all other documents as you may deem expedient, and to visit and inspect the same at the offices or places where the same or any of them may be deposited, and to inquire of the premises by all lawful ways and means: And We do give you power at your discretion to procure such clerical and other assistance as you may deem necessary for enabling you duly to execute this Our Commission: And Our further will and pleasure is that you do within three months after the date of this Our Commission, certify to Us, in the office of Our Chief Secretary under your or any two of your hands and seals, what you shall find touching the premises: And We hereby command all Government Officers and other persons whomsoever within Our said Colony, that they be assistant to you and each of you in the execution of these presents: And We appoint you the said JOSEPH BARLING, Esquire, to be President of this Our Commission; which said Commission We declare to be a Commission for all purposes of the Act 14 Victoria, No. 1, intituled "*An Act to regulate the taking of Evidence by Commissioners under the Great Seal.*"

In testimony whereof, We have caused these Our Letters to be made Patent, and the Great Seal of Our said Colony of New South Wales to be hereunto affixed.

Witness Our Right Trusty and Well-beloved Cousin, HENRY ROBERT, VISCOUNT HAMPDEN, Our Governor and Commander-in-Chief of Our Colony of New South Wales and its Dependencies, at Government House, Sydney, in New South Wales aforesaid, this tenth day of November, in the year of Our Lord one thousand eight hundred and ninety-seven, and in the sixty-first year of Our Reign.

(L.S.)

HAMPDEN.

By His Excellency's Command,

JAMES N. BRUNKER.

Entered on Record by me, in Register of Patents No. 19, page 151, this eleventh day of November, one thousand eight hundred and ninety-seven.

For the Colonial Secretary and Registrar of Records,

CRITCHETT WALKER,  
Principal Under Secretary.

VICTORIA,

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen,  
Defender of the Faith, and so forth,—

To our Trusty and Well-beloved—

GEORGE ALEXANDER WILSON, Esquire, a Member of the Public Service Board, and one of Our Justices of the Peace of Our said Colony,—

Greeting:—

WHEREAS by an instrument under the Great Seal of Our Colony of New South Wales, bearing date the tenth day of November, one thousand eight hundred and ninety-seven, We did, *inter alia*, appoint JOSEPH BARLING, Esquire, to be a Member, and also President of the Royal Commission of Inquiry in connexion with Charitable Institutions: And whereas the said JOSEPH BARLING has now resigned the Office of President: Now, therefore, know You, that We, of Our especial grace, have thought fit to appoint, and do hereby appoint you, the said GEORGE ALEXANDER WILSON, to be President of such Commission.

In testimony whereof, We have caused these Our Letters to be made Patent, and the Great Seal of Our said Colony of New South Wales to be hereunto affixed.

Witness Our Right Trusty and Well-beloved Cousin, HENRY ROBERT, VISCOUNT HAMPDEN, Our Governor and Commander-in-Chief of Our Colony of New South Wales and its Dependencies, at Government House, Sydney, in New South Wales aforesaid, this eighth day of February, in the year of Our Lord one thousand eight hundred and ninety-eight, and in the sixty-first year of Our Reign.

(L.S.)

HAMPDEN.

By His Excellency's Command,

JAMES N. BRUNKER.

Entered on record by me, in Register of Patents No. 19, page 263, this eighth day of February, one thousand eight hundred and ninety-eight.

For the Colonial Secretary and Registrar of Records,

CRITCHETT WALKER,

Principal Under Secretary.

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen,  
Defender of the Faith, and so forth,—

To Our Trusty and Well-beloved—

RICHARD CORNELIUS CRITCHETT WALKER, Esquire, Companion of Our Most Distinguished Order of Saint Michael and Saint George, Principal Under Secretary; and

FREDERIC NORTON MANNING, Esquire, Doctor of Medicine,—

Greeting:—

WHEREAS by an instrument under the Great Seal of Our Colony of New South Wales, bearing date the tenth day of November, one thousand eight hundred and ninety-seven, We did appoint JOSEPH BARLING, GEORGE ALEXANDER WILSON, and JAMES POWELL, Esquires, to be a Royal Commission of Inquiry in connexion with Charitable Institutions, and the said JOSEPH BARLING to be President thereof: And whereas by a further instrument, bearing date the eighth day of February, one thousand eight hundred and ninety-eight, We did appoint the said GEORGE ALEXANDER WILSON to be President of such Commission in the stead of the said JOSEPH BARLING, who had resigned such office: And Whereas it hath appeared to Us to be expedient to appoint additional Commissioners: Now, therefore, know Ye, that We, of Our especial grace, have thought fit to appoint, and do hereby appoint, you to be such additional Commissioners accordingly.

Witness Our Right Trusty and Well-beloved Cousin, HENRY ROBERT, VISCOUNT HAMPDEN, Knight Grand Cross of Our Most Distinguished Order of Saint Michael and Saint George, Our Governor and Commander-in-Chief of Our Colony of New South Wales and its Dependencies, at Government House, Sydney, in New South Wales aforesaid, this sixteenth day of February, in the year of Our Lord one thousand eight hundred and ninety-nine, and in the sixty-second year of Our Reign.

(L.S.)

HAMPDEN.

By His Excellency's Command,

JAMES N. BRUNKER.

Entered on record by me, in Register of Patents No. 20, page 272, this twentieth day of February, one thousand eight hundred and ninety-nine.

For the Colonial Secretary and Registrar of Records,

CRITCHETT WALKER,

Principal Under Secretary.

#### ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS it is necessary to extend the time within which the Commissioners are to make their report in the above matter: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the said Commissioners are to make such report for a period of six months,—to take effect from the 10th February, 1898.

Given under my hand at Government House, Sydney, this second day of March, one thousand eight hundred and ninety-eight.

HAMPDEN.

By His Excellency's Command,

JAMES N. BRUNKER.

ROYAL

## ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the second day of March last, extended for a period of six months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of three months beyond the time in and by the aforesaid instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this second day of August, one thousand eight hundred and ninety-eight.

HAMPDEN.

By His Excellency's Command,  
JAMES N. BRUNKER.

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## ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the second day of August last, extended for a period of three months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of three months beyond the time in and by the aforesaid Instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this eleventh day of November, one thousand eight hundred and ninety-eight.

HAMPDEN.

By His Excellency's Command,  
JAMES N. BRUNKER.

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## ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the eleventh day of November last, extended for a period of three months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of three months beyond the time in and by the aforesaid Instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this sixteenth day of February, one thousand eight hundred and ninety-nine.

HAMPDEN.

By His Excellency's Command,  
JAMES N. BRUNKER.

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## ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the sixteenth day of February last, extended for a period of three months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of four months beyond the time in and by the aforesaid Instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this second day of May, one thousand eight hundred and ninety-nine.

FRED. M. DARLEY,  
Lieutenant-Governor.

By His Excellency's Command,  
JAMES N. BRUNKER.

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## ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the second day of May last, extended for a period of four months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of one month beyond the time in and by the aforesaid Instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this thirteenth day of September, one thousand eight hundred and ninety-nine.

BEAUCHAMP.

By His Excellency's Command,  
JAMES N. BRUNKER.

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ROYAL COMMISSION ON PUBLIC CHARITIES.

PROCEEDINGS OF THE COMMISSION.

*FRIDAY, 14 APRIL, 1899.*

The Commission, of which all the members were present, visited the Sydney Hospital at 4 o'clock p.m.

*MONDAY, 17 APRIL, 1899.*

The Commission met at the Offices of the Public Service Board, at 2 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

Dr. J. Ashburton Thompson was sworn and examined.

The minutes of the two previous meetings were read and confirmed.

The Commission adjourned at 4:30 o'clock p.m.

*FRIDAY, 21 APRIL, 1899.*

The Commission met at the Offices of the Public Service Board, at 2 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The following witnesses were sworn and examined:—Messrs. W. H. P. Cherry, W. L. Vernon, and Dr. R. P. Paton.

The minutes of the previous meeting were read and confirmed.

The Commission adjourned at 4:15 o'clock p.m.

*THURSDAY, 27 APRIL, 1899.*

The Commission met at the Offices of the Public Service Board, at 10:30 o'clock a.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

Sir Arthur Renwick, K.B., M.D., M.L.C., &c., was sworn and examined.

The Commission adjourned at 12:45 o'clock p.m.

*FRIDAY, 28 APRIL, 1899.*

The Commission, of which all the members were present, visited the Prince Alfred Hospital in the afternoon.

*MONDAY, 1 MAY, 1899.*

The Commission met at the Offices of the Public Service Board, at 2:30 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The following witnesses were sworn and examined:—Mr. J. Ewan, Miss N. Gould, Captain Edie, and Mr. C. H. Helsham.

Correspondence read and received.

The minutes of the meetings on 21st and 27th April were read and confirmed.

The Commission adjourned at 4:40 o'clock p.m.

*THURSDAY, 4 MAY, 1899.*

The full Commission visited the Ophthalmic Branch of the Sydney Hospital, Moore's Road, at 3:30 o'clock p.m.

*FRIDAY, 5 MAY, 1899.*

The Commission met at the Offices of the Public Service Board, at 2:30 o'clock p.m.

Present:—Dr. Manning (in the Chair), Messrs. J. Barling, J. Powell, and Critchett Walker, C.M.G.

The following witnesses were sworn and examined:—Sir Edward Knox and Professor Wilson.

The document extending the appointment of the Commission for four months was received.

The minutes of the three previous meetings were read and confirmed.

The Commission adjourned at 4:45 o'clock p.m.

*THURSDAY,*

*THURSDAY, 11 MAY, 1899.*

The Commission met at the Offices of the Public Service Board, at 2.30 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, and J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The following witnesses were sworn and examined:—Dr. E. M. Pain, Mr. T. Jesso, and Dr. Wigan.

The minutes of the previous meeting were read and confirmed.

The Commission adjourned at 4.30 o'clock p.m.

*FRIDAY, 19 MAY, 1899.*

The Commission met at the Offices of the Public Service Board, at 2.30 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, and J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The following witnesses were sworn and examined:—Dr. Evans, Miss McGahey, Dr. McClelland, and Miss Creal.

The minutes of the previous meeting were read and confirmed.

The Commission adjourned at 4.30 o'clock p.m.

*MONDAY, 22 MAY, 1899.*

Present:—Dr. Manning, and Messrs. J. Barling, J. Powell, and Critchett Walker, C.M.G.

The Commission visited the Sydney Hospital for Sick Children, Glebe, and the Branch Dispensary of the Sydney Hospital, Regent-street, in the afternoon.

*FRIDAY, 26 MAY, 1899.*

The Commission met at the Offices of the Public Service Board, at 2.30 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, and J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The following witnesses were sworn and examined:—Dr. Clubbe, Dr. Graham, and Dr. Thring.

Correspondence read and received.

The minutes of the two previous meetings were read and confirmed.

The Commission adjourned at 4.30 o'clock p.m.

*MONDAY, 29 MAY, 1899.*

The Commission, of which all the members were present, visited the Balmain Cottage Hospital in the afternoon.

*WEDNESDAY, 31 MAY, 1899.*

The full Commission visited the North Shore Hospital and the site for the proposed hospital for the northern suburbs in the afternoon.

*THURSDAY, 1 JUNE, 1899.*

The Commission met at the Offices of the Public Service Board, at 2.30 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, and J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The following witnesses were sworn and examined:—Dr. Foreman, Dr. O'Hara, Mr. Cecil Griffiths, and Dr. W. Chisholm.

The minutes of the three previous meetings were read and confirmed.

The Commission adjourned at 4.50 o'clock p.m.

*FRIDAY, 2 JUNE, 1899.*

The full Commission visited the Marrickville Cottage Hospital and the Western Suburbs Cottage Hospital in the afternoon.

*TUESDAY, 6 JUNE, 1899.*

The Commission visited the Cottage Hospital at Manly in the afternoon, all the members being present.

*WEDNESDAY, 7 JUNE, 1899.*

The Commission, of which all the members were present, visited the St. George's Cottage Hospital at Kogarah in the afternoon.

*FRIDAY, 9 JUNE, 1899.*

Dr. Manning and Mr. Powell visited the Hospital at Matland in the forenoon.

*SATURDAY,*

*SATURDAY, 10 JUNE, 1899.*

The full Commission visited the Newcastle Hospital in the morning and the Hospital at Wallsend in the afternoon.

*WEDNESDAY, 14 JUNE, 1899.*

The Commission, all members being present, visited the Hospital at Parramatta in the afternoon.

*THURSDAY, 15 JUNE, 1899.*

The Commission met at the Offices of the Public Service Board, at 2.30 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, and J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The following witnesses were sworn and examined:—Dr. Cecil Purser, Messrs. D. H. Easton, F. Sparrow, and J. Gelding.

Correspondence read and received.

The minutes of the meeting on 1st June and subsequent meetings were read and confirmed.

The Commission adjourned at 4.45 o'clock p.m.

*WEDNESDAY, 21 JUNE, 1899.*

The Commission met at the Offices of the Public Service Board, at 2.30 o'clock p.m.

Present:—Dr. Manning (in the Chair), and Messrs. J. Barling, J. Powell, and Critchett Walker, C.M.G.

Mr. A. Davies, Registrar of Friendly Societies, and Dr. Odillo Maher were sworn and examined.

Correspondence read and received.

The minutes of the previous meeting were read and confirmed.

The Commission adjourned at 4 o'clock p.m.

*FRIDAY, 23 JUNE, 1899.*

Dr. Manning and Mr. Powell visited the Queen Victoria Home for Consumptives, Thirlmere.

*WEDNESDAY, 28 JUNE, 1899.*

The Commission met at the Offices of the Public Service Board, at 2.45 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, and J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The following witnesses were sworn and examined:—Dr. F. J. T. Sawkins, Dr. S. H. MacCulloch, and Dr. S. P. Knaggs.

Correspondence read and received.

The minutes of the two previous meetings were read and confirmed.

The Commission adjourned at 4.30 o'clock p.m.

*THURSDAY, 29 JUNE, 1899.*

The Commission met at the Offices of the Public Service Board, at 3 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, and J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The Hon. Dr. Mackellar was sworn and examined.

The Commission adjourned at 4.15 o'clock p.m.

*FRIDAY, 30 JUNE, 1899.*

Dr. Manning and Mr. Critchett Walker, C.M.G., visited the Hospital at Dubbo at 11 o'clock a.m.

*SATURDAY, 1 JULY, 1899.*

Dr. Manning and Mr. Critchett Walker, C.M.G., visited the Wellington Hospital at 9 o'clock a.m., and the Hospital at Orange at 3 o'clock p.m., returning to Sydney by the 8.30 p.m. train from the latter town.

*FRIDAY, 7 JULY, 1899.*

Dr. Manning and Mr. Powell visited the Hawkesbury Hospital and Benevolent Asylum at Windsor at 11.30 o'clock a.m.

*FRIDAY, 14 JULY, 1899.*

The Commission met at the Offices of the Public Service Board, at 3.30 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, and Dr. Manning.

Drs. R. V. Kelly and A. MacCormick were sworn and examined.

The minutes of the meeting on the 29th ultimo and subsequent meetings were read and confirmed.

The Commission adjourned at 5 o'clock p.m.

*FRIDAY,*

*FRIDAY, 21 JULY, 1899.*

Dr. Manning and Mr. Powell visited the Hospital at Mudgoe at 11 o'clock a.m., and returned to Sydney by the evening train.

*FRIDAY, 28 JULY, 1899.*

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The Commission visited the Coast Hospital, Little Bay, in the afternoon.

*MONDAY, 28 AUGUST, 1899.*

The Commission met at the Offices of the Public Service Board, at 2:15 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

Dr. R. T. Paton was further examined.

The minutes of the meeting on the 14th July and subsequent meetings were read and confirmed.

The Draft Report on the Hospitals of the Colony was considered in part.

The Commission adjourned at 4:15 o'clock p.m.

*WEDNESDAY, 30 AUGUST, 1899.*

The Commission met at the Offices of the Public Service Board, at 2:15 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The minutes of the previous meeting were read and confirmed.

A portion of the Draft Report on the Hospitals was read and considered.

The Commission adjourned at 4 o'clock p.m.

*THURSDAY, 31 AUGUST, 1899.*

The Commission met at the Offices of the Public Service Board, at 2:15 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The minutes of the previous meeting were read and confirmed.

The Draft Report on the Hospitals was further read and considered.

The Commission adjourned at 4:15 o'clock p.m.

*MONDAY, 4 SEPTEMBER, 1899.*

The Commission met at the Offices of the Public Service Board, at 2:15 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, Dr. Manning, and Mr. Critchett Walker, C.M.G.

The minutes of the previous meeting were read and confirmed.

The Draft Report on the Hospitals was further discussed.

The Commission adjourned at 4:45 o'clock p.m.

*THURSDAY, 7 SEPTEMBER, 1899.*

The Commission met at the Offices of the Public Service Board, at 2:15 o'clock p.m.

Present:—Dr. Manning in the Chair, and Messrs. J. Barling, J. Powell, and Critchett Walker, C.M.G.

The minutes of the previous meeting were read and confirmed.

The Draft Report was further considered.

The Commission adjourned at 3:45 o'clock p.m.

*SATURDAY, 9 SEPTEMBER, 1899.*

The Commission met at the Offices of the Public Service Board, at 9:15 o'clock a.m.

Present:—Dr. Manning in the Chair, and Messrs. J. Powell and Critchett Walker, C.M.G. (Mr. G. A. Wilson, President, arrived subsequent to reading of minutes and took the Chair).

The minutes of the previous meeting were read and confirmed.

Further consideration was given to the Draft Report.

A discussion ensued as to the future action of the Commission, and it was resolved that a short report be written reviewing the past work of the Commission, and that a respectful request be made through the proper channels that the Commission be relieved of the conduct of any further inquiries. The three remaining branches of work not dealt with by the Commission were in relation to the administration of grants for the maintenance of Aborigines, the support of State Children, and the conduct of the Government Asylums for the Infirm and Destitute. The first two being already under the special control of Boards of Management appointed by the Government, it was not considered

that any inquiries conducted by the Commission would be productive of results such as would justify the expenditure of the time and labour that would necessarily be involved. In regard to the Government Asylums for the Infirm and Destitute, as the Public Service Board (two members of which are also members of the Commission) had already instituted a close investigation into their administration, no further action, it appeared to the Commission, was necessary.

It was also resolved, on the motion of the President, that there should be placed on record an acknowledgment of the invaluable services which had been rendered by Dr. Manning in the conduct of the Commission's investigation, and of the deep interest and unremitting attention he had displayed in the work.

The Commission adjourned at 4 o'clock p.m.

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*WEDNESDAY, 13 SEPTEMBER, 1899.*

The Commission met at the Offices of the Public Service Board, at 2:15 o'clock p.m.

Present:—Dr. Manning in the Chair, and Messrs. Barling, Powell, and Critchett Walker, C.M.G.

The minutes of the previous meeting were read and confirmed.

The Draft Report of the Commission was further considered, and, on the motion of Mr. Barling, seconded by Mr. Walker, was adopted.

The Commission adjourned at 3:45 o'clock p.m.

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ROYAL COMMISSION ON PUBLIC CHARITIES.

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REPORT.

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To His Excellency the Right Honorable William, Earl Beauchamp, K.C.M.G., Governor and Commander-in-Chief of the Colony of New South Wales and its Dependencies.

MAY IT PLEASE YOUR EXCELLENCY,

Following the procedure laid down in our previous Reports, we, your Commission appointed by Letters Patent, dated 10th November, 1897, have the honor to submit to your Excellency our Report on the subsidised hospitals of the Colony, which completes the third section of our investigations.

Although confined by our Commission to inquiry in respect to institutions aided or entirely supported by the State, we have considered a knowledge of the operations of those not enjoying that support necessary to a satisfactory comprehension of our subject. We have, therefore, visited most of the latter, and been courteously received and furnished with information by the authorities thereof.

To the officials of the hospitals throughout the country, to the Department of the Chief Secretary, and to the Medical Adviser to the Government, we are indebted for much valuable information; and in the Appendices appear, in tabulated form, the particulars obtained from those sources, and from a careful examination of the annual published statements of account and reports of the hospitals.

Our Report is divided into the following sections, dealing with the hospitals in divisions, and with certain important features of hospital policy which have seemed to us to demand individual treatment:—

1. Metropolitan Hospitals.
2. Suburban Hospitals.
3. Country and District Hospitals.
4. The "Coast Hospital."
5. Convalescent Hospitals.
6. Children's Hospital.
7. Lying-in Hospitals.
8. Home for Consumptives.
9. Provision for Ophthalmic Cases ("Moorecliff").
10. Regent-street Dispensary.
11. Provision for Treatment of the Sick by Friendly Societies and Provident Dispensaries, and the necessity for a Free Dispensary.
12. Provision for Lock Cases.
13. Pay or Part-pay System in Hospitals.
14. Out-patients.
15. Training, Hours of Duty, &c., of Nurses.
16. Private Hospitals.

There

There are 108 hospitals which are subsidised by the State, one maintained entirely by the State, and, to the best of our knowledge, five not subsidised. There are, in addition, five institutions for lying-in cases, three of which receive Government aid.

*Subsidised.*

2 General Hospitals—City ... ..	with provision for 554 beds.
6 " " Suburbs ... ..	" " 97 "
1 General Hospital—Government Hospital, Little Bay ... ..	" " 286 "
97 General Hospitals—Country ... ..	" " 1,794 "
1 Children's Hospital ... ..	" " 64 "
1 Convalescent Home ... ..	" " 100 "
1 Hospital for Women (for Surgical and Midwifery cases) ... ..	" " 25 "
3 Lying-in Institutions ... ..	" " 98 "
<hr/> 112	<hr/> 3,018 "

*Unsubsidised.*

1 General Hospital—City ... ..	with provision for 175 beds.
2 General Hospitals—Suburbs (one for Women and Children only) ... ..	" " 55 "
1 Convalescent Home ... ..	" " 76 "
1 Home for Consumptives ... ..	" " 40 "
2 Lying-in Institutions ... ..	" " 58 "
<hr/> 7	<hr/> 404 "
<hr/> Total ... ..	<hr/> 3,422

There is thus provision for about  $2\frac{1}{2}$  beds per thousand of population. In addition, there are 1,383 hospital beds in the Government Asylums for the Infirm and Destitute, making in all, when the hospitals are fully equipped, accommodation for 4,805 patients, and bringing up the total number of beds per thousand of population to about  $3\frac{1}{2}$ . At present a few of the country hospitals are not provided with beds to the full limit of their accommodation. Three of the hospitals—Marrickville, Camden, and New Angledool—included in the 112 mentioned above were opened during the present year.

The number of beds in hospitals in 1889 was 2,181, so that in the past ten years (excluding the lying-in institutions) there has been an increase of nearly 50 per cent., while the number of hospitals has risen from 84 to 114, an increase of 36 per cent.

The revenue and expenditure for 1897 and 1898 of the 105 subsidised hospitals which were in operation in those years (excluding the lying-in institutions), and of the Government hospital at Little Bay, were as under:—

Year.	Hospitals.	Revenue.						Expenditure.					Invested Funds at end of 1898.	
		From Government.	Subscriptions and Donations.	From Patients.	Interest on Invested Funds.	Other Receipts.	Total.	Medical Officer's Salary and Fees.	Other Salaries and Wages.	Maintenance.	Buildings and Repairs.	Other.		Total.
1897	Metrop.	£ 29,657	£ 13,603*	£ 5,650	£ 2,499	£ 642	£ 52,051	£ 18,119	£ 22,041	£ 5,327	£ 4,323	£ 49,810	...	
1897	Govt. ...	14,974	...	...	...	...	14,974	2,445	8,198	2,724	1,607	14,974	...	
1897	Country	31,110	29,956	6,021	2,350	882	70,349	8,626	19,090	20,870	7,932	6,240	71,753	...
...	Total ..	75,771	43,559*	11,671	4,849	1,524	137,404	8,626	39,654	60,109	15,933	12,170	136,542	...
1898	Metrop.	27,498	16,761†	5,614‡	1,760	1,258	52,884	18,451	23,229	2,980	3,507	48,167	83,278	
1898	Govt. ...	20,910	...	...	...	...	20,910	3,884	10,324	4,993	1,704	20,910	...	
1898	Country	34,937	31,200	7,206	2,240	483	76,095	8,865	20,442	32,551	7,957	6,532	76,347	56,678
...	Total ..	83,335	47,964†	12,320‡	4,000	1,741	149,889	8,935	42,777	66,104	15,935	11,743	145,424	139,951

\* Includes bequests (£3,165) received by Sydney and Prince Alfred Hospitals and invested. † Includes bequests (£7,208) received by Sydney and Prince Alfred Hospitals and invested. ‡ A legacy of £7,850 in addition was received by the Children's Hospital and invested.

The total expenditure in 1898 was £145,424. The receipts (less the bequests which were invested by the Sydney and Prince Alfred Hospitals, and consequently were not available for expenditure) amounted to £142,686, towards which the Government contributed £83,355. Of the latter sum, £20,910 was for the maintenance of the hospital at Little Bay. The cost of the treatment of the sick poor in the Government Asylums for the Infirm and Destitute is not taken into account in these figures.

Of the total revenue of the subsidised hospitals, (less the bequests referred to) the Government contributed 51 per cent. in 1897, and 51·3 per cent. in 1898; whilst the contributions from the public in the form of subscriptions and donations in those years amounted to only 33·9 per cent. and 33·5 per cent. respectively.

For the metropolitan and country hospitals separately the calculations are as under :—

Year.	Hospitals.	Government Aid.	Percentage of Revenue.	Subscriptions and Donations (Bequests not included).	Percentage of Revenue.	Total Revenue.
1897	Metropolitan ... ..	£ 29,687	60·7	£ 10,438	21·3	£ 48,916
	Country . . . . .	31,110	44·2	29,936	42·6	70,349
	Total... ..	£ 60,797	51·0	40,424	33·9	119,265
1898	Metropolitan ... ..	27,488	60·2	9,561	20·9	45,681
	Country ... ..	34,957	45·9	31,200	41·0	76,095
	Total... ..	£ 62,445	51·3	40,761	33·5	121,776

On the basis of population the contributions by the Government and the public were as shown in the following table :—

Hospitals.	1897.			1898.		
	Mean Population.	Contributions per head of Population.		Mean Population.	Contributions per head of Population.	
		By Government.	By Public (less Bequests).		By Government.	By Public (less Bequests).
Metropolitan ... ..	414,020	s. d. 1 5·2	s. d. 0 6	422,100	s. d. 1 3·6	s. d. 0 5·4
Country ... ..	896,530	0 8·3	0 8	912,750	0 9·2	0 8 2

In 1897 the total number of in-patients treated in the subsidised hospitals was 22,158, and in 1898 23,832; and, as showing how the demands for hospital accommodation in the Colony were met by those institutions, the following table, giving a numerical classification of the hospitals in accordance with the number of patients treated in 1898, is of interest :—

No. of in-patients treated in year.							No. of Hospitals.	
From	8	to	25	...	...	...	1	Opened October, 1898. Country.
"	26	"	50	...	...	...	5	
"	51	"	75	...	...	...	16	"
"	76	"	100	...	...	...	15	"
"	101	"	150	...	...	...	26	22 " 4 Metropolitan.
"	151	"	200	...	...	...	9	"
"	201	"	250	...	...	...	5	4 " 1 "
"	251	"	300	...	...	...	5	"
"	301	"	350	...	...	...	2	"
"	351	"	400	...	...	...	2	1 " 1 "
"	401	"	450	...	...	...	4	"
"	451	"	500	...	...	...	1	"
"	601	"	700	...	...	...	1	Children's.
"	801	"	900	...	...	...	1	Newcastle.
"	1,001	"	1,100	...	...	...	1	Carrington Convalescent.
"	3,500	"	4,000	...	...	...	2	Sydney and Prince Alfred.

The number of in-patients treated in 1898 by the hospitals not subsidised by the State (excluding lying-in homes) was 3,292, of which 1,665 were dealt with at St. Vincent's Hospital, Sydney. Including the number treated at the Coast Hospital there were thus 29,818 patients who received hospital care in the Colony in 1898, an increase of over 76 per cent. in the last ten years.

As a means of showing where the pressure on the hospital accommodation is most felt, we may compare the average daily number of beds occupied with the number of beds for which structural provision is made:—

No. of Hospitals.	Average Daily No. of Beds Occupied.	No. of Beds.		Total.	
		For General Cases.	For Infectious Cases.		
1	.....	...	...	...	Opened October, 1893.
3	1 or less ... ..	16	2	18	Country.
17	1 to 3 ... ..	155	21	176	"
21	3 " 5 ... ..	212	72	284	"
11	5 " 7 ... ..	132	33	165	10 " 1 Metropolitan.
15	7 " 9 ... ..	189	43	232	13 " 2 "
5	9 " 11 ... ..	76	26	102	"
10	11 " 15 ... ..	183	47	230	9 " 1 "
8	15 " 20 ... ..	195	31	226	7 " 1 "
4	20 " 25 ... ..	116	25	141	(1 a combined hospital and asylum.)
2	25 " 30 ... ..	66	14	80	3 Country, 1 Metropolitan.
3	30 " 35 ... ..	138	14	152	3 " (1 a combined hospital and asylum.)
2	45 " 50 ... ..	111	18	129	1 Country, 1 Metropolitan.
1	75 " 80 ... ..	84	16	100	Carrington Convalescent.
1	200 " 250 ... ..	230	6	236	Prince Alfred.
1	250 " 300 ... ..	312	6	318	Sydney.

This indicates that in the country districts, as a whole, and particularly in respect to the smaller hospitals, the limit of accommodation is far from reached; and a closer inquiry goes to prove that there are instances where the number of patients treated is so small as hardly to justify the continuance of the institutions—a deduction which is borne out by an examination of the average annual maintenance cost per occupied bed.

We find that, for the year 1898, the hospitals may be classified in accordance with the average annual cost per bed as under:—

In 2 hospitals, it ranged from £25 to £35. (These are combined hospitals and poor asylums.)
In 1 hospital (Carrington Convalescent) it was £35 11s.
„ 12 hospitals it ranged from ... .. over £50 to £60
„ 14 " " " " " " " 60 " 70
„ 13 " " " " " " " 70 " 80
„ 11 " " " " " " " 80 " 90
„ 6 " " " " " " " 90 " 100
„ 16 " " " " " " " 100 " 120
„ 17 " " " " " " " 120 " 140
„ 3 " " " " " " " 140 " 160
„ 1 " " " " " " " 180 " 200
„ 2 " " " " " " " 200 " 250
„ 4 " " " " " " " 250 " 300
„ 2 " " " " " " " 350 " 400

In respect to three hospitals—those at Berrima, Jerilderie, and Silverton—the figures in the table are based on the cost for 1897; the complete figures for 1898 not having been received.

The cost per bed has been arrived at on the basis of the year's expenditure, less expenses incurred in the erection of new buildings and their equipment, the cost of the treatment of out-patients, where information has been obtainable on the point, and any extraordinary expenditure. It includes the cost of minor additions, alterations and repairs, the general painting or renovation of premises, and clerical and other expenses, which go to make up the outlay incurred in the general maintenance of an hospital. There appears to have been considerable confusion in the minds of hospital authorities as to how the cost per bed should be calculated. Some have excluded the cost of minor additions and repairs, and others clerical expenses and all minor charges which, though not directly incurred in the internal economy of the hospital, are necessarily involved in the working of the institution. We have not had the opportunity of obtaining a minute analysis of the accounts of the hospitals, and have in our calculations relied chiefly on the published statements of account and the financial returns furnished to the Medical Adviser to the Government. In Appendices D and E are given tables, in which the average annual cost per bed of each hospital is shown. When a particularly heavy outlay has been incurred in preserving the hospital buildings in a proper state of repair, mention is made of the fact. In the case of the smaller hospitals it is necessary to remember that a small increase or decrease in the average daily number of beds occupied affects very largely the average annual maintenance cost per bed.

There appears to be a strong tendency to establish an hospital in each small centre of population, and in spite of the large number already in operation, efforts towards the erection of others are being actively made. The Government, whose assistance is early invoked in the life of such agitations, becomes the largest subscriber, and furnishes the funds for half and sometimes more of the cost of the erection of the buildings and that of the subsequent maintenance of the institutions. Though the Government has thus so large an interest in the proper conduct of the hospitals, and the judicious and economical expenditure of their funds, it exercises no voice whatever in their management, except in the case of the Sydney and Prince Alfred Hospitals; nor, except under special circumstances, does it institute any inquiries in regard thereto, although there appears to be sufficient provision in an existing Act of Parliament for that purpose. (See Appendix M.)

We think it expedient that there should be a periodical visit to, and systematic inquiry into the general conduct of all these institutions by an officer of the Government. We have clearly seen that inspection by a competent official would be very helpful to the hospital authorities in several respects; and if conducted with discretion and tact, it need in no way conflict with the rightful authority of those members of the community who, in an honorary capacity, devote so much time and attention to hospital management. We have in former Reports suggested the lines on which inquiries should be conducted in respect to other benevolent institutions, and we think a similar provision should be put in force in regard to hospitals.

The invested funds of the subsidised hospitals at the end of 1898 amounted to £139,951, of which £72,972 were in the hands of the Sydney and Prince Alfred Hospital authorities. These funds consist mainly of savings in years when revenue has exceeded expenditure, of special collections for building and other purposes, and of bequests which have been made on the condition that they shall be invested and the interest thereon only expended for the maintenance of the hospital. The amount is a large one, and in some respects important as bearing on administration. To the policy of benevolent institutions accumulating funds, reference has been made in our former Reports, and it is herein further commented on in relation to hospitals.

The Public Hospitals' Act now in existence (see Appendix N) contains provisions for the election and appointment of officers, the making of rules and regulations, the control of hospital properties, and the institution of legal proceedings; but it does not deal with other matters of importance. This Act is only made to apply when the authorities of the hospitals ask for an extension of its provisions to their institutions. There are several hospitals which have not as yet been brought within its provisions, and until they have been, their legal position, we understand, is in some respects insecure.

## METROPOLITAN HOSPITALS.

The hospitals in the metropolitan area of Sydney and its suburbs for the care and treatment of the sick are—

- (1.) The general hospitals.
- (2.) A convalescent hospital.
- (3.) The suburban hospitals.
- (4.) The special hospitals for maternity cases and diseases of women.

The general hospitals and the number of beds in each are as follows :—

	No. of beds.
1. The Sydney Hospital (including the Ophthalmic Branch)...	318
2. The Prince Alfred Hospital ... ..	236
3. St. Vincent's Hospital ... ..	175
4. The Glebe Hospital for Children ... ..	64
5. The Coast Hospital ... ..	286
Total ... ..	1,079
The Convalescent Hospitals (as will be hereafter explained) add to the hospital accommodation of Sydney to the extent of at least 100	
The Suburban Hospitals (including Lewisham, and St. Joseph's, Auburn) contain ... ..	152
	1,331

In addition, there are, approximately, 181 beds set apart for diseases of women and maternity cases in the Hospital for Women, the Benevolent Asylum, and the Maternity Homes hereafter to be mentioned, which number, however, can be increased to about 260, should the calls upon the accommodation of the institutions demand it. Further, there are 1,383 beds for hospital cases in the wards of the Government Asylums for the Infirm and Destitute.

The beds in the city and suburban hospitals proper (including the convalescent hospitals) are in the proportion of 3·1 per 1,000 of the population. Adding the beds in the maternity hospitals, the proportion is 3·5 per 1,000, and inclusive of those in the Government Asylums for the Infirm and Destitute, the proportion is 6·8 per 1,000 of the population included in the metropolitan area.

Various attempts have been made by writers on hospitals to lay down some rule as to the proportion of hospital beds to population necessary, but the conditions of life in large cities vary so considerably, and the special needs of the population are so diverse, that it seems impossible to deal with this matter entirely on a statistical basis. An examination into the proportion of hospital beds to population, in a number of large cities, in returns already published, shows that this varies from about ·64 at Portsmouth to 9·83 per 1,000 at Paris.

The number of cities under review was forty-seven, but the condition of no one of these large cities affords a parallel to that existing in Sydney. In Sydney the climatic conditions and the general absence of the grinding poverty so common in all large European cities would seem to point to the need of a less number of beds than usual; whilst, on the other hand, the gravitation of the sick poor of the whole Colony towards the metropolis is a disturbing element in the other direction, so that any average of the number required for the cities of Europe, or any calculation based on the returns of any one of these, is likely to give results altogether fallacious. Some of the best authorities on the subject are of opinion that there should be provided in large town districts four hospital beds for every thousand of the population, including union infirmary beds, which are calculated to be about one-quarter of the whole; but when these figures were placed before Sir Arthur Renwick he at once

once objected to be guided in his opinion by them, declining "to give an estimate on a statistical basis of that kind at all," or rely on it; whilst Professor Wilson and other witnesses did not consider that figures were of any great value, unless account were taken of the circumstances of the community.

We are of opinion that it is from experience alone, after a careful consideration of existing conditions, that any conclusion can be drawn on this subject.

The sufficiency or otherwise of the existing hospital accommodation in the metropolis for the needs of the class requiring it has been very fully before us. The majority of the witnesses have stated that there is great pressure on this accommodation, and are in substantial agreement that at least 100 additional beds are required, and some of them consider that 200 beds or upwards are necessary to meet all the calls for hospital assistance. On the other hand, some witnesses well qualified to form an opinion (Dr. Ashburton Thompson, Dr. Mackellar, and Dr. Sawkins) see no need for any immediate increase in the number of beds. We do not doubt but that if 200, or even more, beds were available they would be immediately filled; but we are not convinced of the immediate necessity of any additional accommodation in the general hospitals, and we are of opinion that any pressure which at present exists can be relieved by a redistribution of cases, by certain restrictions as to the admission of paying patients, by providing increased facilities for treating patients in their own homes, and by additions to the existing accommodation in connection with the Government Asylums for the Infirm and Destitute.

Under present arrangements beds in the general metropolitan hospitals are occupied by three classes of cases that, in our view, should not be admitted thereto:—

- 1st. By those who can afford to pay the private practitioner for attendance, or who should avail themselves of the accommodation and care already to be obtained in private hospitals, or which would, no doubt, soon be obtained at a reasonable rate if the general hospitals shut their doors against this class.
- 2nd. By those who come under the notice of the police or of charitable organisations and individuals as needing medical assistance, and who, owing to the want of a free dispensary with visiting medical officers, are taken into the hospital, when they would much rather, and might with greater economy and equal efficiency, be treated at their own homes. For this class a free dispensary, as we have elsewhere indicated, is a necessity.
- 3rd. By those who are sent by Dr. Paton, the Government Medical Officer for Sydney, for treatment in the general hospitals because no suitable provision for them exists in the hospitals managed entirely by the Government. This class is undoubtedly a very large one, and includes a very large proportion of the persons applying at the Hospital Admission Dépôt for relief. The remedy in this case is the provision in connection with the Government Asylums for the Infirm and Destitute of properly-built, properly-equipped, and properly-managed hospitals having wards set apart for special cases, and corresponding in general arrangements with the Sick Asylums now so numerous in England, which have grown out of and have replaced the sick-wards in poor-houses. These hospitals could, we are assured, be managed efficiently, and with all due liberality, at a cost per bed very considerably less than the present cost in the general hospitals.

The exclusion of these three classes under the provisions for their care above indicated would, there is no doubt, do away with all present pressure on the existing hospital accommodation, and leave the general hospitals free to do, and space to cope with, work which is more legitimately the aim and object of their existence.

In the absence of any complete system of local government, the maintenance and care of the sick poor fall directly on the State, and hitherto the Government of New South Wales has not dealt with this question on any definite principle.

It has provided certain wards in the Government Asylums for the Infirm and Destitute for the 1,383 hospital cases—1,074 males and 309 females—who are sheltered in these institutions; but this provision is stated to be neither adequate

nor satisfactory. It maintains an hospital at Little Bay, with accommodation for 286 cases, under the control of the Medical Adviser to the Government, and it sent, in 1898, over 2,900 cases for treatment to the two main general hospitals (which it has found the major part of the funds to build), and paid at the rate of 3s. a day for their care and treatment in those hospitals.

The following is the evidence of the Medical Adviser on this point:—  
 “The total number of patients in Sydney Hospital in 1898—the beds being 279—was 3,618, and out of that number 1,557 were Government patients; so that there were 2,061 who were not Government patients; and for the 1,557 Government patients the Government paid very nearly £9,000, in addition to the £4,000 subsidy which the hospital annually receives. The number of beds in Prince Alfred Hospital is 236; the total admissions to the hospital were 3,706; the Government patients numbered 1,359, those not being Government patients numbering 1,347, and the amount paid was £5,700—here again, in addition to the annual subsidy of £4,000. So that, in the case of the Prince Alfred Hospital, the patients dealt with by the hospital as a public hospital, and dealt with by the hospital as a Government institution, were about equal—1,347 and 1,359.”

The kind of partnership which has hitherto existed between the Government and the two large general hospitals—the Sydney and Prince Alfred—in this matter, has not been on the whole satisfactory to either party. The Government has granted valuable building sites, has given the sum of £268,933 to the building funds of these hospitals, this being 77·4 per cent. of the total sum expended in their erection, and now, apart from the £ for £ subsidy which is given to all hospitals, gives to these hospitals the sum of over £14,000 a year for the treatment of pauper patients, together with £700 a year for the maintenance of a dispensary, and £350 a year as rent for the buildings at Moorecliff. The sum of £268,933, spent by the Government in building these hospitals, could have provided at, say, £200 per bed, 1,345 beds in one or more well-built and well-equipped hospitals of its own, and for decidedly less than the sum annually paid for the maintenance of pauper patients, it could for years past have maintained these patients in its own hospitals. The existing arrangement is certainly not to the advantage of the Government from a financial point of view, and it appears that it is not satisfactory to the hospital directorates, who have recently approached the Government with a request that the 3s. per diem per head now paid for destitute persons, shall be increased to 4s. in the future. Moreover, the arrangement has led to a more or less general belief that the hospitals are little other than Government institutions, or, at all events, that funds are forthcoming from the Government whenever these are necessary. This belief has influenced the public in their dealings with the hospitals, and appears to have lessened the amount of subscriptions and donations on the one hand, whilst it has induced people who otherwise would not have done so to take advantage of the benefits of the hospitals on the other.

The time would seem to have arrived when the Government might with advantage reorganise its whole hospital system and place it under one Department, and at the same time the relations of the Government to the two main hospitals might be revised, and placed on a more business-like and satisfactory footing.

The Government might, with advantage, take on itself the treatment and care of the sick poor coming under its protection much more completely than it has hitherto done, and do this in hospitals after the pattern of the Sick Asylums now so numerous in England under the Department of the Poor Law Board, whilst the aid of the general hospitals might be invoked for the treatment of special cases, and especially for those requiring the major surgical operations.

These selected cases would, no doubt, involve considerable expense in their care and treatment, and this expense would, probably, not be met by the daily rate now paid by the State to the hospitals; but the Government, under the arrangement indicated, could afford to pay liberally for this class, and would, no doubt, under the circumstances, be ready to meet the cost actually incurred.

Before



Before we had arrived at any conclusion with regard to the necessity for increase in the hospital accommodation of the metropolitan area, we took evidence from the witnesses before us as to the best means of providing this accommodation should it be found to be required. It is now only necessary to put on record briefly and incidentally the conclusion we arrived at on this question.

The evidence showed conclusively that it would be unwise to add more buildings for the accommodation of patients to the Sydney Hospital, the site being already too limited, and the addition of another storey objectionable, as cutting off light and air, involving difficulty in administration, and introducing an element of danger in case of fire; and that St. Vincent's Hospital, which is in many respects a private hospital, is not regularly subsidised, and only comes under our review as forming part of the hospital system of Sydney, is already large enough, considering the area of ground on which it stands; and further, that any increase which seems advisable is rather in the direction of additions to the hospice or home for the dying which has been recently established there in connection with the hospital than to the hospital itself. There remains the Prince Alfred Hospital; and we found a general consensus of opinion that any increase of hospital accommodation in Sydney, when this may become necessary, should be in connection with this institution. The hospital was planned, and the general administration is intended, for a much larger number of beds than it now possesses, the space is ample, and the sites for additional pavilions good, whilst the administrative buildings being already in existence, ward accommodation only would be necessary.

We have made some inquiries into the cost of both the Sydney and Prince Alfred Hospitals, and find that the Sydney Hospital (exclusive of the old south wing, but including the nurses' home) has cost a sum of £169,650, or at the rate of £681 per bed for the accommodation provided, whilst the Prince Alfred Hospital (including the nurses' home) has cost a total of £177,922, or at the rate of £754 per bed. Of the total amount, no less than £145,433 in the case of the Sydney Hospital, and £123,500 in the case of the Prince Alfred Hospital, was provided directly by the Government.

The expenditure in both instances has been unnecessarily high, resulting in extremely massive and structurally elaborate buildings. The contrast between these buildings and the utilitarian structure at St. Vincent's, which was built entirely from subscribed funds, but which serves all necessary purposes, is a useful object-lesson in hospital construction.

The evidence shows that the charity of the hospitals is taken advantage of by a number of persons who have no claims upon it whatever. The witnesses examined on this point are practically unanimous as to this, and most give one or two flagrant instances coming under their own observation.

The class of people seeking hospital care is said to be altogether different to that in Great Britain, and the charity of the hospitals is abused—first, by those who obtain admission without making any payment at all, but are well able to do so; and second, by those who pay small amounts, but are really able to pay much larger ones.

The abuse of hospital charity under the first heading is due in a measure, as we have already pointed out, to the fact that the hospitals are by a large class held to be mainly Government institutions, the advantages of which may be shared by anyone who chooses to avail himself of them; whilst the abuse under the second heading is partly due to the pay system, under which the commercial instinct of the patient is aroused, and he makes the best bargain he can, regardless of the equities of the case.

Among the more flagrant cases appear to be patients from the country who come to Sydney for operations, and who escape the fees which their medical attendants in the country and those they consult in Sydney propose to charge by getting admission to the hospitals under plea of poverty. The hospital authorities make certain inquiries both before and after the patients are admitted; but there is no system under which these inquiries are followed up, a process which appears to be absolutely necessary to check imposition. We have gone into this question at some length when dealing with "out-patients," and it need not be further dealt with here.

Of

Of the three general hospitals which are subsidised by the Government, two—the Sydney and the Prince Alfred Hospitals—are governed by committees elected in accordance with special Acts of Parliament, differing in some respects in their provisions; and in the case of the Children's Hospital, the committee is elected in accordance with the rules drawn up at the establishment of the institution. In all three hospitals the committee is a somewhat numerous body, and in the case of the Sydney Hospital the Government is directly represented by ten, and at the Prince Alfred Hospital by three members. At the latter hospital the Chancellor of the University and the Dean of the Faculty of Medicine have seats *ex officio*. At these two hospitals the Government not only subsidises the hospital to the extent of £ for £ on subscriptions and donations, but pays very large sums for the maintenance of pauper patients, and thus is the largest supporter of the institutions, and should no doubt be in some way represented on the Boards of Management.

There is, we find, considerable difference of opinion as to the value of the Government representation. The evidence of Professor Wilson was—

949. Do the Government nominees attend regularly? They do.

950. The number being so small, would they exercise any real influence in the management of the hospital? I imagine that that is rather a question of their personality. As a matter of fact, I think they do, but I can imagine it being the other way. In my experience, they have exercised a very fair amount of influence on the Board.

989. Have you given any thought to the question of the control of our charitable institutions in the matter of the Government subsidy;—do you think the Government, who contribute the principal part of the subsidies, have sufficient control? I think that the Government representatives on the Board of Directors ought to be adequate to represent the public interests. I must confess that I think the life nomination of Government representatives rather tends to loosen the control. You cannot have the Government representatives always alive to their work. I think our Government representatives are very much alive. We have good representatives, and they do their work exceedingly well, but I think that the system of appointing three Government nominees for life on the Board is perhaps not altogether satisfactory from the point of view of the Government. I do not think, however, that anything would be gained by greatly increasing the representation.

whilst Dr. Mackellar said—

2661. I am one of the representatives of the Government on the Board of both the hospitals, and, therefore, I, perhaps, may be allowed to say that the method, of which I am one of the representatives myself, is an exceedingly bad one, and very little supervision—that is to say, from the Government point of view—is exercised by myself or by the gentlemen who are in a similar position to me on the Boards. I think I may say that I have sometimes, in past years, asserted a little more authority, on the ground that I was appointed by the Government, and I have found that it was not at all well received by the other directors of the institution who were not similarly appointed.

It is clear that ten Government members in a committee of twenty-six at the Sydney Hospital, and three Government members in a committee of fifteen at Prince Alfred Hospital, cannot exert any preponderant influence, and such influence as they do exert is no doubt due to individual interest in or an aptness for the position rather than to their number or position as representing the Government.

The large size of the committee at the Sydney Hospital is defended on the ground that the interest in the institution is thus spread over a large sphere, and of late years, and since it has been working under the new Act, the Sydney Hospital has been managed with but little friction. The Prince Alfred Hospital, of which the committee is comparatively small in size, has, from its commencement, worked in a manner to which little or no exception can be taken.

A suggestion has been made, and this view is favoured by one of the witnesses examined, that the three subsidised hospitals should be placed under one Board to ensure some uniformity of action and prevent undue rivalry. We think it doubtful if anything is to be gained by this course, and, although in the past there has no doubt been some rivalry between the two chief hospitals which was not altogether wholesome in its results and which has led to some extravagance in building the hospitals, there does not now appear to be any antagonism likely to be to their detriment. Some uniformity of action might undoubtedly be obtained if all the Government nominees were appointed to the committee of both hospitals instead of to one only, and the Government appear to have in some measure realised this, as two of these nominees have seats both at the Sydney and Prince Alfred Hospitals.

The

The revenue of the three subsidised hospitals for 1898 was as follows :—

	Sydney.	Prince Alfred.	Children's.
From Government subsidy and special grants ... ..	£3,721	£4,691	£1,480
Maintenance of patients...	8,056	6,134	.....
Subscriptions and donations ...	2,485	2,403	1,818
Bequests (invested) ... ..	3,702	3,501	.....
Patients' payments ... ..	2,296	2,414	408
Interest ... ..	1,053	631	27
Other receipts ... ..	309	371	.....
	21,622	20,145	3,733

A legacy of £7,850 was received and invested.

It will be seen by the above figures that under existing arrangements the Government furnished 62·9 per cent. of the entire sum forming the income of these three hospitals (excluding the invested bequests), and 65·4 per cent. of the total income of the two main institutions, and it is probably largely owing to these facts that these hospitals are regarded mainly as Government institutions that subscriptions and donations are not given as freely as might otherwise be the case, and that persons of moderate means feel less compunction in applying for and accepting relief than they would if the charity came directly and entirely from private sources. The subscriptions and donations, which include the amounts received from the Saturday Hospital Fund, form only 17·5 per cent. of the entire income of the three hospitals (excluding bequests), and 14·1 per cent. of the income of the two chief hospitals, and considering the size and wealth of the metropolitan population these amounts are decidedly small, and contrast unfavourably with the subscriptions and donations in the country districts.

The establishment of the suburban hospitals has no doubt diverted funds from the metropolitan ones, but, including the receipts of these in the calculation, the subscriptions and donations to the subsidised hospitals in operation in 1898 in the country districts amounted to 8·2d. per head of the population, whilst in the metropolitan area (including the unsubsidised St. Vincent's Hospital, and also the Marrickville Hospital opened in 1899) they amounted to only 6·5d. per head.

The amounts of invested funds of the three hospitals at the end of 1898 were as follows :—

Sydney Hospital ... ..	£37,494	(Includes £2,903 Samaritan Fund.)
Prince Alfred ... ..	35,478	
Children's ... ..	8,747	
	81,719	

We have taken some pains to inquire into the sources of these funds, and as to how far they are set apart by testamentary or other deed for special purposes, or are available for the general purposes of the hospital, but we have been unable to ascertain exactly the position of these endowments. The larger part of the funds appears to have been derived from legacies, which in some instances have been "ear-marked" so that only the interest can be used. The directors appear to have also placed to the endowment fund under the by-laws of the hospitals all sums of £100 and upwards received as donations or otherwise.

We are unable to see any special reason for building up an endowment fund at either of these institutions, and so providing for the future at the expense of the present. The people of the future should be as able to provide funds for hospital maintenance as are those of to-day. It has been an almost universal experience that when hospitals become largely endowed public interest in their management and welfare ceases, abuses creep in, and funds put aside for one purpose are diverted to another, or are lost in the vicissitudes brought about by time. The Select Committee of the House of Lords on the hospitals of London, which sat in 1890-1, reported that "in the case of the three endowed hospitals your Committee are of opinion that the system of administration does not compare favourably with that which exists at the other general hospitals," and some of the endowed special hospitals came in for decided animadversion.

This

This view has been upheld upon other inquiries, and is supported in a measure by facts which have come under our own observation. We are of opinion that all sums coming to hospitals which are not specially set apart by the legators or donors, so that only the interest is available, might advantageously be spent in adding to or improving the structure of the hospitals or applied towards their maintenance, and that instead of seeking Government assistance for future additions the metropolitan hospitals might with advantage first spend some of their accumulated funds in this manner.

The general management of the subsidised metropolitan hospitals, which have the advantage of constant and enlightened public criticism, we deem to be on the whole satisfactory. The directors and the officers immediately in charge appear to be fully aware of the necessity for additional buildings in some cases, and of shortcomings in appliances in others, and though anxious to remedy defects are restrained by consideration of expense.

#### SUBURBAN HOSPITALS.

The suburban hospitals, including that at Marrickville recently opened, provide accommodation for ninety-seven patients, distributed as follows:—

	Males.	Females and Children.	Special or Infectious.	Total.
Balmain ... ..	9	13	...	22
North Shore ... ..	11	12	2	25
Western Suburbs, Ashfield	6	9	...	15
St. George's, Kogarah ...	3	8	...	11
Manly ... ..	5	5	2	12
Marrickville ... ..	4	8	...	12
	—	—	—	—
	38	55	4	97

In addition to these subsidised hospitals, the hospital at Lewisham now contains thirty-six beds, all for women and children, a number which will be raised to 100 when additions now in progress are completed, whilst the accommodation at St. Joseph's, Auburn, is for 19 patients—men, women, and children. Both of these institutions are managed by, and are the property of sisterhoods, and are, in a manner, therefore, private institutions, and receive no Government subsidy.

The total suburban hospital accommodation is, including the hospitals at Lewisham and Auburn, for 152 patients (to be raised to 216 on the completion of the additions at Lewisham), and, with the exception of the North Shore, appears to be sufficient for the needs of the districts served. The average daily number of patients resident, as shown by the returns from the subsidised hospitals for the last two years, is evidence that there was no real pressure on the accommodation, and inquiries on this point showed that, except at special times when sickness was much more than usually prevalent, the hospitals were able to meet requirements.

The oldest of these hospitals, that at Balmain, was established in 1884, and the latest, that at Marrickville, was opened during the current year, so that in fifteen years 152 beds have been added, in the form of suburban hospitals, to the hospital accommodation of the metropolitan area.

These suburban hospitals, as a rule, fulfil a useful purpose and are doing good work, but there appears to be a tendency to increase their number unnecessarily and without a full consideration of existing conditions and needs.

The establishment of one or two of the hospitals, which were started some years ago, appears to have been somewhat premature and hardly justified by the number of patients they have received, and it is a question whether the needs of the districts in which they are situated could not have been equally well served by the Prince Alfred Hospital, which is at no great distance and easily reached by rail or ambulance.

This question becomes even more cogent in the case of the new Marrickville Hospital, which is situated at a distance of about  $2\frac{1}{4}$  miles only from the Prince Alfred Hospital, a distance traversed by good roads and trams. It is impossible under the circumstances to imagine that this hospital will supply any real need, and the money spent in building, that collected in subscriptions and donations, and also the Government subsidy, with which we are more immediately concerned, would probably have been better expended in adding to and supporting the Prince Alfred Hospital than in starting and maintaining a separate institution. It does not appear, therefore, that any additions to these hospitals, unless, perhaps, in the case of the one at Balmain, which is in the centre of a large industrial population, and the North Shore Hospital, which will be separately considered, are immediately necessary, except to provide for some shortcomings in the original plan or to meet administrative needs.

The original intention of the small suburban hospitals was to provide for accidents and urgent cases, and to diminish suffering and save life, by sparing the patients the pain and exhaustion necessarily involved in journeying to the large metropolitan hospitals situated at a distance.

Some of these suburban hospitals, and notably those at Ashfield and Manly, have already passed beyond the sphere of usefulness originally contemplated, and have undertaken the care of cases in no sense urgent, and arranged for a large extension of their work in the direction of operative surgery. The operations at the former numbered forty-six, and at the latter, fifty, in 1898, and most of these were of a severe character. The advisability of carrying out operations on a large scale in an hospital removed from the useful criticism of medical practitioners and students, which is always present at a metropolitan hospital, has been called in question by several witnesses, and we think with good reason.

Whilst examining into the condition of the suburban hospitals several points in connection with them came under consideration. The provision made for women and children is as regards the whole group, and conspicuously so in some instances, greater than that for men, and the explanation offered is that women, in many cases, will not enter, or allow their children to enter, the large metropolitan hospitals, where they would be distant from their homes and unable to see the members of their families frequently, but that they are willing to avail themselves of the care offered in the cottage hospital in their immediate neighbourhood.

These suburban hospitals have, in all cases, a certificated nurse (usually trained in the Prince Alfred Hospital) as matron, and the senior nurses have also undergone the recognised three years' training in a large hospital, and hold certificates; but a large part of the work is done by probationers, and the hospital authorities are not altogether at one as to the manner in which these probationers should be dealt with. In some cases the impossibility of adequately training nurses in such a small sphere of work is fully recognised, and the probationers are only taken for a period preliminary to their entry as probationers at one of the larger hospitals for which their names have been entered as candidates before their engagement. In others, the services of the probationers are retained for two years or more, and they leave, not with certificates, but with commendatory letters, which ensure them private nursing work. This system we consider to be unwise, since it turns out nurses with inadequate training, both theoretical and practical, and is neither good for the nurses themselves nor for the public, who are unable to distinguish as to their qualifications.

The hospitals do not all afford accommodation for cases of infectious disease, or for other cases requiring isolation which break out in the hospital itself, or are admitted thereto before the symptoms are fully developed. This is a matter which we think should be remedied.

The North Sydney Hospital, owing to the very large and scattered district it serves, the rapidly-growing population of North Sydney, which has already reached about 40,000, and the difficulty and delay attending the transport of patients across the harbour, especially from outlying districts, to the metropolitan hospitals, seems destined to grow into a somewhat large district hospital, calculated to provide all the accommodation required for North Sydney. This appears to be the view held  
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by the committee of the hospital, who have already decided to give up the present building and commence *de novo* on a new site, and also of the Government, who have granted a site of 8 acres in a position which appears to be well suited for the purpose. In commencing a new hospital the fullest consideration should be given to the plans, so as to ensure an hospital easily worked in the present, and adapted for enlargement as necessity arises without detracting from its efficient administration and its sightliness, or without involving an increase in the cost of maintenance beyond that necessitated by an increase in the number of patients.

The cost of building the suburban hospitals, exclusive of the cost for land, has ranged from about £121 to £216 per bed, and the money, provided that the hospital was necessary at all, has in each case been judiciously spent. The annual cost of maintenance ranges from about £56 10s. a bed at Manly to £83 17s. a bed at Balmain.

The governing bodies are in most instances somewhat large, and in one instance an hospital with twelve beds has a governing committee of thirty-three persons; but this is defended on the ground that the interest in the hospital is widened in proportion to the number on the committee, each of whom feels personally responsible for the work of the institution, and for assistance in one way or another towards its support. The real management is, however, in most instances entrusted to a House or Executive Committee, and the work is, as a rule, well done.

The suburban hospitals appear to be subjects of interest, pride, and satisfaction in all the districts in which they have been established, and in no case is there any debt nor does there appear to be any great difficulty in obtaining funds for the current expenses of maintenance.

The subsidies paid by the Government towards the building of the suburban hospitals and towards the cost of maintenance have been very unequal. In one case every £1 collected for both purposes has been met by a Government subsidy of equal amount, and though the neighbourhood is a wealthy one, special subsidies in addition have been unconditionally granted, whilst in others the collections towards building have been only partly met by subsidies from the Government, and no special and unconditional subsidies have been given.

It is difficult to see why all districts should not be treated alike in this respect, or what has been the reason, except importunity, political or otherwise, which has led to this unequal treatment. We doubt if it is ever wise or necessary for the Government to give these special and unconditional grants, or to do more than grant £ for £ on the collections for both building and maintenance, and we are convinced that even these £ for £ subsidies towards the building funds should be subject to certain conditions, among which are the following:—

1st. That subsidies should only be granted towards building new hospitals or enlarging the existing ones on the report of a competent Government officer showing that the inception of a new hospital or the enlargement of an existing one is justified by circumstances.

2nd. That subsidies in aid of the building fund should only be granted on condition that the plans, specifications, and estimates are submitted to the Government for approval, are altered according to suggestions made, and carried out in accordance with these suggestions.

3rd. That, as the cost of building should not exceed £200 per bed, the amount contributed by the Government towards the building fund, on the £ for £ basis, should not be greater than at the rate of £100 per bed.

#### COUNTRY AND DISTRICT HOSPITALS.

The total number of country hospitals in operation is at this time 97, and these afford accommodation when fully equipped for 1,794 patients. Of the total number of beds, 1,459 are for general hospital cases, and 335 for cases of infectious disease.

We have not thought it necessary—neither would it have been possible—to visit all the hospitals, especially as the objects of our Commission were of a general character, and nothing was to be gained by an elaborate inquiry into the management of each hospital concerned. We have rather sought to ascertain that the hospital requirements of the community as a whole were properly, and efficiently met on an economical basis.

Twenty-three hospitals, sufficiently representative of the whole number, have been visited by members of the Commission, and the following is a list of these:—

Newcastle	Mudgee	Warialda
Maitland	Forbes	Gunnedah
Wallsend	Wyalong	Moree
Lithgow	Broken Hill	Goulburn
Bathurst	Kiama	Corowa
Orange	Wollongong	Parramatta
Dubbo	Bulli	Windsor.
Wellington	Armidale	

Reports on most of the above are given in Appendix C. In addition, the Commission has received from each hospital certain statistical and other details, which are set forth in appendices attached to the report, and also plans and other information of considerable interest.

The hospitals vary much as to the date at which they were established, some, as those at Windsor, Parramatta, Newcastle, Maitland, &c., dating back from the earlier times of the Colony, and having a continuous existence of eighty or more years, whilst others have been commenced within the last few years—those at Lithgow, opened in 1896, Mossgiel, in 1898, Camden, where a cottage has recently been rented, and New Angledool being the latest additions to the list. Efforts are also being made to establish hospitals at Tumut, Milparinka, Blayney, Wee Waa, and Quivindi, for which Government aid has been received. At the first-named town it is expected the hospital will be erected and occupied by the end of the year.

During the last ten years the number of hospitals opened has been unusually large, and the advisability of providing some accommodation for cases of accident and serious disease has attracted much attention. There appears to be a danger of establishing these institutions in places where they are not really needed, where the expense incurred would not be justified by the result, and where, in occasional cases, with proper ambulance arrangements, it would not be difficult to transport the patients without any great suffering or danger to hospitals already in operation.

It has formed part of the subject of inquiry to discover if all the hospitals on the list are really needed, and we have come to the conclusion that in one instance at least, viz., Silverton, the hospital, from the decrease of population in the neighbourhood, has outlived its period of usefulness, and should be closed; and that in others, and notably at Bulli, the hospitals should never have been established. The hospital at Silverton had an average daily number of only 1.1 beds occupied in 1897, and its annual cost per bed was £375 18s. in that year; whilst at Bulli the average daily number of beds occupied in 1897 was 0.44, and in 1898, 0.47, and the annual cost per bed at the rate of £404 in the former, and £379 7s. in the latter year. The corresponding figures for 1898 from Silverton have not been received.

The patients from Silverton could easily be taken to Broken Hill, where the hospital is well equipped, and efficiently conducted; whilst Bulli is only 6 miles by rail, and 7 by road, from Wollongong, where the hospital has abundance of vacant beds, which would accommodate all the patients from Bulli, who could easily be sent there by ambulance or otherwise, and could be maintained at a very much less cost than they are at present. The expenditure on the part of the Government in connection with Bulli Hospital is between £70 and £80 annually, besides occasional special subsidies, and is altogether more than can be justified by the nature of the cases treated, or by other considerations. We have gone further into detail on this question in the special report on the Bulli Hospital. (See Appendix C.)

The cost of building the country hospitals is in many instances difficult to ascertain, especially in the case of the older institutions, as the records have not been carefully kept; but in the newer ones it has varied as far as can be ascertained from the returns to hand from £35 per bed at Mossiel, to £293 per bed at Bathurst. This variation is greater than local conditions will altogether account for, and the cost might, in future, be made more uniform if certain stock plans and specifications were prepared of hospitals of different sizes, which would serve (possibly with some modification) for guides to local committees and their architects. This appears to be the more necessary since, on a careful examination of the plans of seventy-six of the country hospitals, we find that only twenty-six can be classed as good and satisfactory, the remainder being either defective in important particulars or altogether inconvenient and bad.

The range in the annual maintenance cost per bed at the different hospitals is somewhat startling—excluding the hospitals which are a part of, or are worked in conjunction with, benevolent asylums, in which the cost does not represent that of hospital patients—it varied in 1898 from £50 6s. at Bathurst to £379 7s. at Bulli; and, even allowing for special circumstances, and for isolated and costly neighbourhoods, the higher rates seem to need some justification. At the Prince Alfred Hospital, which is replete with every modern appliance, and where the class of cases treated is of a kind involving large expense, by reason of costly surgical dressing, and the proportionately large nursing staff required, the cost in 1898 was £68 7s. per bed, whilst in the country districts, in no less than 45 hospitals, the maintenance rate was upwards of £100, in 8 it was over £200, and in two it was over £300 per bed.

In the course of our inquiries we have found that there is no one central authority dealing with the hospitals as a whole. Certain statistics and returns in forms which have been prescribed are furnished by the hospital authorities to the Medical Adviser to the Government, and to the Chief Secretary as a condition precedent to the payment of the subsidies, but no action appears to be taken on these, even should they show obvious mismanagement or wasteful expenditure. Statements of all subscriptions and donations towards the maintenance of the hospitals are forwarded to the Chief Secretary, and these appear to be closely scrutinised, and the Government subsidy of equal amount paid on them in accordance with the Regulation in force, which provides “that the Government, through Police Magistrates or other approved officers, have the right of recommending the admission of patients.”

As Dr. Ashburton Thompson, points out, “the establishment of country hospitals is always by local initiative, and there is never any controlling inquiry as to the need for one.” The reasons for establishing an hospital are not by any means always satisfactory or free from the tincture of personal interest on the part of the promoters; the site, which is sometimes given by a resident, is not always well chosen, and the buildings are not always planned in accordance with modern scientific views on hospital construction. It is true that there is a rule under which these plans must be forwarded for approval by the Chief Secretary, and they are thence transmitted to the Medical Adviser, where they are examined as to the arrangements and also as to general suitability and sufficiency; but Dr. Thompson states: “As a rule I have supervised these plans myself, and made notes on them, saying, ‘This is wrong,’ or ‘This must be altered,’ and so forth, and sent them back to the Chief Secretary, but nobody has any hold over the country hospitals, except the Chief Secretary, and his hold depends not on any matter of law, but entirely on his control of the purse. The consequence is that the alterations indicated are not always made. I have found that out by visiting the hospitals perhaps two or three years after they have been built. There is no arrangement for insisting on these alterations being made—there is no control and no check.”

When a sum of money has been subscribed the Government is applied to for the £ for £ subsidy, and this is generally granted without any systematic inquiry as to the necessity for the hospital or its compliance with requirements. In some instances the Medical Adviser has suggested that the subsidy should be withheld until the hospital authorities have complied with certain requests made by him, or carried out certain alterations in the structure or in the management of the hospital which he has recommended, and in some cases they have been withheld until reforms have been effected, whilst in others the suggestions have not been acted on.

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When the Chief Secretary required that all destitute sick persons coming under the notice of the Police and recommended by the Government Medical Officer of the district, should be admitted to the district hospitals so as to prevent their admission to the only other refuge—the hospitals within gaols—certain of the hospital authorities were recalcitrant and declined to comply with this request; but, as it was decided to withhold the payments of the subsidies in these cases, all the hospital committees have now agreed to meet the views of the Government in this matter.

On the other hand, some years ago the Medical Adviser moved the Chief Secretary to require that every country hospital should have accommodation for at least two cases of infectious disease, and should admit such cases to the extent of this accommodation, and although the majority of the hospitals complied with this requirement, some have successfully resisted it or put up accommodation clearly inadequate to meet the object in view.

The subsidised hospitals have, as a rule, been brought under the provisions of the Public Hospitals Act, but there has been no insistence on this, and there is no obligation on the hospitals to adopt a code of model rules for the management of hospitals which has been drafted by the Medical Adviser, and many of them have not done so.

In other really important matters there is no uniform action, and in some instances, such an officer as the matron has not received the thorough training which is essential for anyone appointed to the position. A suggestion in a circular letter, dated December, 1894, and intended to have the force of a regulation in regard to this matter, made by the Chief Secretary, is only technically complied with in some cases, and in others is altogether ignored.

The annual reports are submitted in diverse forms; they often omit tables showing the maladies treated, are incomplete in essential details, and even such important facts as the average daily number of beds occupied and the annual cost per bed are in some cases omitted. The accounts of the hospitals are in many instances not presented so as to show readily the financial condition, and in a number no balance-sheet is submitted, invested funds and endowments are not shown, and the only guide to their existence is the sum shown under the heading of interest in the annual statement of receipts and expenditure. Further, there is no regular inspection of the hospitals, either as to their general condition and management, or as to their current expenditure, and no visiting officer from whom the officers or committee can obtain advice in regard to details of administration. Such advice we found the officers ready to ask for and willing to accept in a number of instances. It is true that the Medical Adviser to the Government, or officers of his department, when visiting municipalities or country districts for other purposes, visit and inspect the hospitals in a general way, and draw attention to more obvious defects, and in cases in which charges of neglect or mismanagement are made, or quarrels between officials impair the good government of the institution, special inquiries are set on foot by the Chief Secretary, but there is no systematic inspection by a competent official and no complete gathering-up for the benefit of hospital administration of the facts and statistics which would be useful for comparison and interesting to the general public.

Our inquiries have convinced us that the hospitals, as a rule, are well conducted, and that, on the whole, very considerable interest is taken in their management in the districts in which they are situated. On the other hand, there are in some instances great defects in the hospital buildings—some of which are ill-planned and altogether unsuitable—a great need of the necessary equipment, and grave faults in the administration; whilst in others the hospitals are carried on in connection and under the same roof with, asylums for the destitute, under circumstances which render good hospital work, and especially operative surgery, almost impossible. In some—and indeed, perhaps, in the majority of—instances the committee are aware of, and are anxious to remedy, the more obvious defects and shortcomings in the way of structure and surroundings, but in others the present condition of matters is acquiesced in and thought sufficient. In a large number of cases those in authority do not appear to sufficiently appreciate the importance which attaches to a consideration of details, or the extent to which inattention to these details goes to interfere with the comfort and, indeed, the recovery of the patients.

In matters of expenditure, also, the details do not always receive the attention which they deserve, and instances of extravagance in one or other direction are not infrequent.

In some instances the hospital appears to be too much in the hands of some one medical practitioner, who has an exclusive right of attending patients, and it would doubtless be to the advantage of the patients and of the district, as tending to widen the sphere of interest in an important public institution, if greater liberality was exercised in this regard, and more than one medical officer placed on the hospital staff where this can be arranged.

We do not consider it a rule having an universal application, but it is certainly the case in special instances, that the hospitals which have endowments and are the least dependent on public subscriptions are the least commendable as to their buildings and their management, and we believe that this arises from the fact that the public, as a rule, takes but little interest and feels but little pride in what it is not called on to support. We believe that the endowments might in several instances be advantageously spent in re-building or re-modelling the hospitals, and that the future support of the institutions should be sought in subscriptions from the public, who would probably then take a much greater interest in the hospitals than they do at present.

These facts point to the necessity for some more effective control and some more systematic inspection of hospitals from their inception. It is clearly advisable that the Government should be able to say that an hospital is not needed, or that the proposed site is unsuitable, and so determine at once that on either of these grounds no Government subsidy would under any circumstances be forthcoming. This would, as a rule, nip the undertaking in the bud, or cause important alterations in the manner of procedure. It is equally advisable that the hospitals receiving subsidies should be subjected to periodical inspection, and reported on by an officer of the Government.

The committees of country hospitals complain, not without reason, of the number of sick vagrants that come under their care, and the cause of these complaints is likely to continue so long as persons quite incapable of earning their own living, and really requiring hospital care, are permitted to depart from the Government asylums for the infirm and destitute, and to travel in the country. Expense is not only thus incurred by the hospitals, but by the State, which has often to bear the charge of conveying these people back to the asylums.

In the section dealing with suburban hospitals, we have referred to the unequal manner in which State aid has been dealt out to those institutions. This inequality in treatment is even more noticeable in the case of the country hospitals, and to them applies with greater force the remarks we have made in regard to the suburban ones. The conditions we have suggested, upon which aid should be given by Government towards the erection of new suburban hospitals, should also, we think, be enforced in the country.

#### THE COAST HOSPITAL.

The Coast Hospital is entirely a Government institution, and comes within the scope of our inquiries mainly in its relation to the general hospital system of the metropolis.

It was built somewhat hastily during an epidemic of small-pox in 1881 and 1882, and being intended as a sanatorium, and not an hospital, was lightly constructed almost entirely of wood and iron, and was at first without many of the accessories necessary to fit it for hospital purposes. The hospital has been improved from time to time. It has been connected with the Sydney water supply, water-closets and lavatories have been erected, the whole establishment has been properly sewered, and certain substantial buildings, including a laundry, kitchen, &c., either have been or are in the course of being erected.

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In 1883 lepers were sent there, and were accommodated in temporary structures till 1890, when a regular lazaret was built—a small distinct hospital at some little distance from the other buildings, which somewhat increases the difficulties of administration.

The buildings have been put to various purposes since their erection, but since 1884 they have been used for hospital purposes, for the reception, care, and treatment of some cases of acute illness, for sub-acute and chronic cases of general disease, for lock cases in men, to the extent of 800 to 1,000 cases annually, for cases of typhoid fever, and for cases of infectious disease, there being no other provision for the latter class of cases.

The hospital has, in fact, been an overflow hospital for the metropolitan district, and has received, in addition, all cases of infectious disease needing treatment within that area, except severe cases of diphtheria, which the distance at which it is situated rendered it perilous to send.

It was found soon after the hospital was opened for the reception of cases of typhoid fever that the long distance which patients had to travel was decidedly prejudicial if the disease was severe in type or the patients in the later stages of the malady, and Dr. Mackellar, the then Medical Adviser, laid down rules under which typhoid cases were to be sent. These have been adhered to up to the present. Under them a very large number of cases of typhoid have been successfully treated for many years, and during the summer months these cases form a considerable proportion of the total number of inmates.

Dr. Mackellar, at the same time, pointed out how much the administration of the hospital would be facilitated, and how much its utility would be increased, by a tram service, but no steps have of late been taken with regard to this.

The hospital is difficult to administer by reason of the manner in which the buildings are arranged, the large area they cover, and their distance from each other. It is somewhat costly to maintain by reason of its isolated position and the difficulty of obtaining supplies, and also by reason that the patients must be conveyed by an expensive ambulance service, which adds about £6 per annum to the cost of each occupied bed. It is unsuited by reason of its situation for cases of phthisis and rheumatism, and by reason of its distance for accidents and for cases of very acute and exhausting illness, except in the earlier stages of the malady; but it has done very excellent service as part of the hospital system of Sydney for many years, and it still has in it a large capacity for usefulness.

Our first duty was to ascertain what is the anticipated life of the existing buildings, and the next to try and arrive at some conclusion as to the cost of a tram service to the hospital, and how far this would serve in diminishing the expenses and increasing the usefulness of the institution.

The Government Architect states in evidence that the further life of the older buildings, if kept in ordinary repair, is fifteen years, and that of the newer structures thirty years, so that it seems advisable, especially considering the large sum which has been spent in the construction of the hospital, that it should be continued in use for certain classes of cases.

The Department of Public Works estimate that the continuation of the tram service from the terminus at Botany to the hospital, a distance of 3 miles, and thence to La Perouse, would cost £12,200, and it is certain that it would be of some public service besides conveying the patients and their visitors to the hospital. Under these circumstances, the cost of transit, which, so far as the ambulance service alone is concerned, is upwards of £1,400 a year, would be materially reduced, and, under proper arrangements, including a special ambulance tram once or twice a day, the conveyance of the sick would be much facilitated, and many cases now precluded might be safely taken.

The hospital now admits the following classes of cases, viz., medical cases of a sub-acute or chronic kind, surgical cases either not requiring active surgical interference, or requiring this only in a minor degree, lock cases, lepers, cases of typhoid fever, and cases of infectious disease. The large amount of work done at this  
hospital

hospital in connection with cases of fever and of infectious disease is shown by the following extract from the report of Dr. Ashburton Thompson on this institution for the year 1897 :—“The number of fever cases varied only with the epidemic conditions of the season, and was almost always much above 200, in one year rising to nearly 400, whilst the number of infectious cases of all sorts rose to more than 500 in one year; and, as to kinds, seldom included less than five, all of which, of course, required isolating, not merely from the general cases, but also from each other.”

The number of the typhoid and infectious cases treated may be judged by the following return, compiled from the reports of the hospital for the four years, 1895, 1896, 1897, and 1898 :—

	Chicken-pox.	Measles.	Scarlet Fever.	Influenza.	Whooping-cough.	Diphtheria.	Beri Beri.	Erysipelas.	Typhoid Fever.	Total.
1895 ...	10	1	60*	26	25	45*	11	51	96	325
1896 ..	1	2	76*	5	3	50*	...	73	247	457
1897 ...	5	...	249*	18	...	29*	...	107	141	549
1898 ...	1	321	348†	30	50	25	8	70	165	1,018

\* A number of the diphtheria and a few of the scarlet fever cases were only received in their convalescent stage.  
† In 57 of these cases the disease was combined with either diphtheria, measles, or erysipelas.

The results of treatment in the cases of infectious disease at the Coast Hospital appear to have been very successful, but it must be remembered that some of the more severe cases have been excluded, owing to the dangers involved in taking them so long a journey.

Since the notification of infectious disease has become compulsory, the need of hospital provision for such cases has become more apparent, and has more specially engaged the attention of the Health Authorities. An hospital for the reception of cases of infectious disease, which should be removed from thickly-populated districts and overcrowded households, is, indeed, a necessary corollary to the compulsory notification, which was introduced by the Health Act of 1896. Dr. Ashburton Thompson does not view favourably the Coast Hospital as a place for the treatment of infectious disease, owing to its distance and other drawbacks, and is now seeking a new site; but it cannot be denied that, up to the present, this Coast Hospital has done exceedingly good work in this connection, and would be more generally available if a tram-line were made as suggested. It should be remembered also that the Government has set apart a site for a sanatorium on the North Shore to serve the whole of the districts on the northern side of the harbour, so that, with a new general hospital, the North Shore will be a separate hospital district, and the danger of removing patients from what, so far as the Coast Hospital is concerned, was the most inaccessible district from which patients were sent, will be thus removed.

On the whole, we can see no valid reason why the Coast Hospital should not be continued as an hospital for infectious diseases, at all events until other and better arrangements can be made, and especially if some small hospital or receiving-house for acute cases of diphtheria, and other severe ailments, be established in a more central situation. Such parts of the Coast Hospital as are not required for cases of infectious disease might still be used for general cases as at present, and the whole institution might, we are of opinion, be removed for administrative purposes from the Department of the Medical Adviser to that of the Government Asylums for the Infirm and Destitute, and worked with the hospitals or sick asylums in connection with that department, which must soon be established to supplement and in time replace the wards for the sick and infirm now at those Asylums.

This arrangement meets with the approval of Dr. Ashburton Thompson, and is outlined in the following questions, viz., 76, 77, and 78 :—

76. Turning now to the metropolitan hospitals, which consist of the Sydney, the Prince Alfred, the St. Vincent, and the Children's Hospitals, can you tell us whether these are sufficient for the needs of the population, or is the hospital accommodation for the metropolis below its requirements? I can only judge so far as there is pressure on the Coast Hospital, and my belief is that the hospital accommodation is well taken up at present. If it is not actually deficient, it is fully occupied.

77. So that it is rather below than above what is required? Yes; that is my belief.

78. Such being the case, what would you consider the best mode of meeting the want? That is a very difficult question. The plan that I have always had in my own mind was that of building an infirmary like a Poor Law Infirmary in England, and that the Coast Hospital should be combined with it. It would be filled largely with the more serious cases of chronic sickness in the asylums, and by such acute cases as are now represented by the acute cases which are taken into the Coast Hospital—if such a place were established within reasonable reach of Sydney. One must never forget that a hospital in the existing isolated situation is not equivalent to a hospital in the city. Then I believe that a large proportion of the cases now admitted to the Sydney and Prince Alfred Hospitals, and paid for by the Government, would be treated there. I think there would be economy in that plan, notwithstanding the primary expenditure on buildings. It is a subject about which a great deal might be said, but that has always been my idea. The infectious hospital would work in much better with such an institution as I have just mentioned than if it stood by itself, because the number of patients in it will fluctuate immensely; therefore, its staff needs will fluctuate; so that it can be much better worked in conjunction with some general hospital.

#### CONVALESCENT HOSPITALS.

The two convalescent hospitals which serve the metropolitan district are the Carrington Hospital, which has accommodation for 100 patients (and of which a report will be found in Appendix C) and the Thomas Walker Hospital, which, including a special cottage for children, has room for 76 patients, together giving a total accommodation of 176 beds.

The average daily number of patients at the Carrington was, in 1897, 78; and in 1898, 76. In the year 1896, according to the evidence of the hon. secretary, the total number of patients received at the Carrington Hospital was 1,055, and of these 96 were sent from private houses or institutions other than hospitals, and the remainder from the metropolitan hospitals themselves. The figures for 1897 and 1898 do not differ materially from this—less than one-tenth, therefore, come from outside sources and over nine-tenths from the hospitals, so that of the average daily number of 76 to 78, it may be reckoned in round numbers, 70 are from the metropolitan hospitals, and these hospitals are relieved to that extent.

The average daily number of patients at the Thomas Walker Hospital for 1897 was 68; and for 1898, 67; and of these, a somewhat larger proportion than is the case at the Carrington come from private houses, but about two-thirds come from the hospitals, so that these are relieved by the Thomas Walker to the extent of about forty-four beds.

The patients sent to the convalescent hospitals from the general hospitals are not fit for work, and the majority are without homes to which they could at once return, or in which the necessary supervision over convalescents could be exercised, so that in the absence of convalescent hospitals they would remain and occupy beds in the general hospitals. It may be taken, therefore, that the two convalescent hospitals add at least 100 beds to the metropolitan hospital accommodation, and as the Carrington was opened in 1890, and the Thomas Walker in 1893, this accommodation has thus, within nine years, been increased to that extent.

The Thomas Walker Hospital was built and endowed by its founder, the late Mr. Thomas Walker, and his family, and seeks no aid from the public or the Government, so that it does not come within the scope of our inquiry; but the Carrington Hospital is subsidised to the extent of £ for £, and the sum of £5,000 was granted by the Government towards its erection. In addition to these subsidies, a sum of 2s. a day is paid for all cases sent to the institution by the authorised Government Medical Officers, and 10s. per patient for cost of transit. These payments made up a total of £941 10s. 2d. in 1897 and of £1,119 5s. 10d. in 1898, and are equal in amount to one-third of the total annual cost of the hospital. The average cost per bed at the hospital was £35 3s. 9d. in 1897, and £35 11s. 4d. in 1898, and for a convalescent hospital this rate is a high one; moreover, the payment, which is at the rate of £36 10s. a year, with 10s. in addition for the transit of each patient sent, is in excess of the average cost. If the Government builds and manages its own hospitals, on lines which we have elsewhere indicated, there will be very little, if any, need to send its patients to this or any other convalescent hospital, as those discharged from the metropolitan hospitals could be received during convalescence into one or other of the sick asylums under the Government control, and maintained at a less cost, so that a great part of the sum paid to the Carrington Hospital would be saved.

## THE CHILDREN'S HOSPITAL, GLEBE.

This hospital, of which a description is given in Appendix A, is working under conditions of some difficulty, owing to the buildings being unsuited for hospital purposes and too small to properly house the officers in its service. The pressure on its ward accommodation does not appear to be excessive except at times, since the average daily number of beds occupied is fifty out of a total of sixty-four. A new hospital should, we consider, be built when funds are available, and might be planned so as to allow of expansion as additional beds are shown to be required. The committee of management has this in view, and purposes placing the new building on the site now occupied by the cottage for diphtheria cases, and possibly adding to the area of land, already 4 acres, by purchase. This will involve, as a preliminary, the removal of the cottage, and the provision of some accommodation for cases of diphtheria elsewhere. There is, however, reason to believe that, with the increasing use of anti-toxin and the fuller knowledge of its remedial properties, such provision will be less necessary in the future than it has been in the past.

The evidence given by Dr. Clubbe as to the value of anti-toxin was as follows:—

1576. The anti-toxin treatment has been used there now for some years? We began to use it in 1895.

1577. Has it been a very great success? Yes. It has lowered the death-rate from 50 to 24 per cent. The death-rate last year was 17 per cent.

1578. What was it the year before? The year before that it was 18 per cent.

1579. I ask for the two years to show that this lowered death-rate was not an exceptional thing? This year there has been no death at all so far.

1580. Do you think it likely that the death-rate will be further decreased? Yes; I feel sure that it will. Formerly we did not give enough anti-toxin. In the first place it was very expensive, and we did not know much about it. We find that we can give much larger doses. If it is given earlier and in sufficient quantities I believe there will not be any deaths from diphtheria at all.

1581. Then the diphtheria hospital has been a very useful institution? Yes; 884 children have passed through it since it opened in 1893, and there are only twelve beds. We opened the hospital in July, 1893, when there were 75 cases with 43 deaths. In 1894, there were 137 cases with 68 deaths; in 1895, 184 cases with 42 deaths; in 1896, 177 cases with 34 deaths; in 1897, 160 cases with 31 deaths; in 1898, 151 cases with 26 deaths.

The cottage for cases of diphtheria has been objected to as a focus of disease, but the evidence goes to show that there is no real ground for this objection:—

1582. The hospital has been objected to as likely to be a focus of disease;—has there been any real ground for that objection? No; as a matter of fact there have been very few cases of diphtheria in the Glebe. We hardly get any cases from the Glebe; but if it was a focus of infection we should get more of them.

1583. The number of cases from the Glebe has not been greater in proportion to the population than those from other districts? No; I think the number has been less. We have a table in the report showing where the cases come from. There were nine cases from the Glebe last year.

This evidence is especially interesting in relation to the selection of a new site for the hospital for diphtheria cases, and may serve to dispel some erroneous view and dispose of some objections which may be raised with regard to the neighbourhood of such an institution.

#### INSTITUTIONS FOR THE TREATMENT OF MATERNITY CASES AND DISEASES PECULIAR TO WOMEN.

Apart from small private lying-in houses, there is accommodation provided in the metropolis for about 172 maternity cases at the following institutions:—

Benevolent Asylum	...	...	...	...	42 beds.
St. Margaret's Maternity Home	...	...	...	...	42 „
Home of Hope	...	...	...	...	30 „
Salvation Army's Maternity Home, Burwood	...	...	...	...	26 „
Women's Hospital	...	...	...	...	16 „
Queen Victoria Maternity Home	...	...	...	...	16 „
					172 „

The Women's Hospital has, in addition, nine beds for female surgical cases, and a large number of women are attended in their own homes by the medical officers and nurses on the hospital staff. Should the necessity arise, the accommodation at the Benevolent Asylum for maternity cases can be increased to 100, and at the Home of Hope to 50, making a total accommodation for 259 persons.

In our previous reports we have dealt with four of the abovenamed institutions—the Benevolent Asylum, the Women's Hospital, the Home of Hope, and the Maternity Home at Burwood. The cost of the first is entirely borne by the Government, while the others receive aid from the State by means of subsidies of £ for £ on the contributions from the public, or by means of special grants. In the case of the last two, the amount given by the Government is not specifically for the support of those institutions, but is granted as assistance towards the whole of the varied operations of the organisations which control them; that is, the Sydney Rescue Work Society in the one case and the Social Branch of the Salvation Army in the other. The St. Margaret's Home and the Queen Victoria Home are not subsidised.

The number of women accouched in each of the homes in 1897 and in 1898 was as follows:—

	1897.	1898.
Benevolent Asylum (indoor department) ... ..	302	241
Women's Hospital " " ... ..	45	168
Home of Hope " " ... ..	92	114
Burwood Home ... ..	65	39*
St. Margaret's Home ... ..	80	116
Queen Victoria Home (opened October, 1897) ...		7

We have already referred to the disadvantages which are inseparable from the existence of a number of institutions of this character in the metropolis, and urged the establishment of a central hospital, such as exists in other important cities, for the treatment of diseases peculiar to women and of maternity cases.

In such an hospital the patients could be treated, not only at less expense, but under better conditions than is possible in small homes, and it would besides serve as a useful teaching centre for both students of medicine and maternity nurses.

This hospital, we have suggested, should be controlled on lines similar to those upon which the general hospitals are maintained and managed, and on its establishment we think the State should cease to grant any aid to other maternity institutions.

There is an essential need in Sydney for a properly-equipped hospital of the kind suggested, as the accommodation now provided is, to a large extent, ill-adapted and unsuited for the performance of the work.

In four of the institutions mentioned nurses are trained in midwifery, and, if successful in passing certain examinations, certificates of proficiency are granted to them. The conditions under which nurses are trained, and the examinations to which they are subjected, vary with the institution, and, especially where the nurses have not had a prior general hospital experience, the training, we think, is in some instances insufficient in length of time, and conducted amidst surroundings which are not conducive to efficiency. The proper training of nurses in midwifery is of very considerable importance to the community. Such an hospital as is proposed would afford the best facilities for this training, and the possession of a certificate of proficiency by a nurse trained therein would be a valuable guarantee to the public of her competence.

The only institution that we are aware of outside of the metropolis which provides for lying-in cases is the asylum under the control of the Newcastle Benevolent Society at Waratah, where a small ward is set apart for the purpose under the care of a trained nurse.

The reception and befriending of women before and after confinement, which is, in conjunction with the medical treatment of maternity, undertaken by some of the institutions named, is no doubt a very benevolent and useful work, and properly-conducted homes for that special purpose are deserving of assistance.

QUEEN

\* Home moved from Newtown to Burwood in 1898, and for some time prior and subsequent to removal arrangements were made for applicants for admission to go to the Benevolent Asylum.

QUEEN VICTORIA HOME FOR CONSUMPTIVES AT THIRLMERE, NEAR PICTON.

This Home was founded by Mr. J. H. Goodlet, who for some years rented a house in the town of Picton for the reception and care of consumptive patients, and defrayed all the expenses in connection therewith. About twelve years ago Mr. Goodlet built the present Home at Thirlmere, removed the patients thereto, and for about eight years carried on this Institution from his private resources, unaided by any subscriptions or other help. About five years ago circumstances compelled Mr. Goodlet to give up his charitable work, and the building was handed over to a Board of Management, who undertook to collect funds for the continuance of the work which Mr. Goodlet had for so long carried on unaided.

In August, 1898, the management announced that it would be necessary to close the Home, owing to the want of adequate support. However, in accordance with a strongly expressed public opinion, it was handed over to the Executive of the Queen Victoria Home for Consumptives, and the retiring Board asked that the sympathy and support which had been extended to them might be continued to the new management. Several of the members of the late Board have seats on the new one. The conduct of the institution has been, in the main, on the lines already laid down, and there has been no material change in the staff. The executive of the Queen Victoria Home took over the sum standing to the credit of the former management, amounting to about £1,000, which had been raised by special efforts on the part of the public immediately prior to the transfer of management, and entered into an arrangement under which the Home, with about 4 acres of land to be used as garden, were handed over to them for two years, on condition that they would repaint and repair the buildings and keep them in a satisfactory condition during their occupancy. They also deemed it necessary to make certain alterations in the sanitary arrangements, which, with the painting and repairs, involved an expenditure of £150.

The Home is now managed by a house committee appointed by the executive above mentioned, and consisting of nine members, of whom about one-half are ladies. The hon. treasurer and the hon. secretary, who are members of the house committee, were elected by the general committee of the Queen Victoria Fund. This house committee meets once a month, and two of the members pay a monthly visit to the home. The hon. treasurer and hon. secretary also make periodical visits. A paid secretary, who has an office in Sydney, visits the home fortnightly. The other officers of the Institution are an honorary examining officer, by whom all applicants for admission are examined in Sydney, and who certifies to their fitness for care and treatment or otherwise; a visiting medical officer, who is paid a retaining fee of £40 a year; a matron, who has general charge of the Home; and a collector.

The Home stands in an elevated position at upwards of 930 feet above sea-level, and is distant from Thirlmere about 1 and from Picton about 3 miles. It is faultily planned, not too well built, and poorly fitted; but the rooms are lofty and well lighted and ventilated, and there is ample verandah space.

There is no hot water supply for the wards, and in time of drought water for baths has to be carried from a dam in an adjoining paddock.

The accommodation is for fourteen female and twenty-six male patients; who are housed in three large and three small dormitories; a large dining room; and two sitting rooms; which, with the verandahs, give ample day space. The accommodation for the staff is sufficient, and fairly comfortable, and the kitchen, store-room, &c., which are in the basement, are sufficient in size, and convenient in general arrangements.

The staff consists of a matron at £72; three nurses—one at £40, one at £30, and one at £25 a year; a wardman, a gardener, and a married couple who act as cook and kitchenman. The laundry-work is all done out of the institution.

The number of patients in the Home on 30th August, 1897, was 40, and 89 were admitted during the year; so that the benefits of the institution were made available for 129 patients, of whom 73 were discharged, 19 died, and 37 remained on 3rd September, 1898, when the present executive took charge. The average daily number resident during the year was 37·3, and the cost per occupied bed, £32 6s. 4d.

The



The demands on the Home are very considerable, and it is said that there are as a rule twenty or more patients waiting admission.

There does not appear to be any rule for the guidance of the Examining Medical Officer with regard to the stage of the disease at which the cases are to be admitted—in fact it is said that any patient suffering from consumption is admitted if able to endure the journey to the Home, and the number of deaths, which seems somewhat large, may be due to the reception of cases in an advanced stage of the malady. There is apparently also no limit as to the time during which patients may enjoy the benefits of the Home, since we heard of some who had been inmates for four, and of one who had been in for seven years. The present management will perhaps see its way to effect some alteration in both these respects, as it would certainly be for the greatest good of the greatest number if the cases selected were in the earlier stages of the disease, and so more likely to benefit by the change of air and treatment; and if there were a limit to the period of residence, to be extended perhaps in exceptional instances, the cases which proved chronic and hopeless being discharged to make way for new admissions.

The income for the year ending 31st August, 1898, was as follows:—

	£	s.	d.
Subscriptions and donations ... ..	834	14	8
Various collections from carnivals, fetes, bazaars, &c.	485	11	11
Specially collected by <i>Daily Telegraph</i> ... ..	178	19	6
Legacy ... ..	40	0	0
Special Government grant ... ..	300	0	0
	<hr/>		
	£1,839	6	1

No mention is made in the last report of this institution of any receipt of moneys from patients towards maintenance, and the report is meagre and unsatisfactory in other particulars. When visited there were only three patients paying—one at 3s., one at 5s., and one at 15s. a week; and it is stated that the sums received under this head are small. Nevertheless, they should appear in the statement of account under a separate heading.

It has been decided by the new management to apply the interest of the amount collected for the Queen Victoria Homes, which amounts to upwards of £14,000, to the current work of this institution, and this, with donations and the proceeds of entertainments, will make up the amount available for the expenses of the current year. The institution is not at present, under the Public Hospitals' Act, and is not regularly subsidised by the Government with the usual grant of £ for £.

The whole place is admirably kept; the dietary is very good and abundant; and a mid-day meal, which we saw ready for serving, was well cooked and good in all respects. The institution is no doubt doing very useful work, but its faulty planning, the existence of large dormitories instead of small rooms, and the want of selection in the cases sent, together with a want of limit as to stay, are all drawbacks to its utility.

#### PROVISION FOR OPHTHALMIC CASES.

##### “Moorecliff.”

The Ophthalmic Department of the Sydney Hospital was established in 1882. When the old hospital was demolished and a temporary structure substituted this department was crowded out, and was placed in a private house at Miller's Point. Here it has grown to a larger size than would have been possible if it had remained as part of the main hospital, and this growth has been assisted by two causes: 1st, that, by reason of the skilled surgical assistance of the honorary staff, the department has obtained a reputation which has extended over the whole of Australasia, and owing to the readiness with which admission has been granted, patients with eye diseases have been attracted from other colonies, and especially from Queensland; and, 2nd, that owing to the want of a properly equipped and officered ophthalmic ward in connection with one of the Government Asylums for the infirm and destitute patients with Government orders have, in large numbers, been sent to “Moorecliff.”

The

The present condition of the department at "Moorcliff" is sufficiently indicated in the separate report thereon, and it now only remains to set forth what seems advisable in dealing with it in the future.

It is clearly impossible to continue a condition of matters which is creditable neither to the Sydney Hospital nor to the predominant partner, the Government; and the only direct suggestion offered by the witnesses examined is the erection of a new hospital specially for ophthalmic cases either at "Moorcliff" or on a new site. The expense involved in this proposal is one which cannot, under the circumstances, be justified, and the remedy must, we think, be sought in another direction. It cannot be considered satisfactory to the Government which bears most of the expense—though we can understand the Directors of the Sydney Hospital congratulating themselves on the fact, as is done in the last annual report of the hospital,—that patients from other colonies are attracted to New South Wales to be treated in "Moorcliff" mainly at the public expense, and, in cases where the sight is lost, to remain as permanent beneficiaries on the charity of this colony. Another class, which evidence shows constitutes quite one-half, if not two-thirds, of the total number, consists of more or less chronic cases, which could be treated without difficulty, and at a considerably less expense than the present cost to the Government, in a properly equipped ward or wards—which could be visited by a specialist when necessary—in connection with one of the hospitals in the Government Asylums for the infirm and destitute; and steps should, we think, be taken to establish an ophthalmic department on the lines indicated and under direct Government control as soon as possible. Considering the present condition of "Moorcliff," the change to a well-equipped Government Hospital would certainly be one for the better so far as the comfort of the patients is concerned, whilst their medical treatment, so far as this is necessary, could be made equally efficient.

This will leave a permanent number of possibly some thirty cases requiring active treatment or operative assistance, and these could be dealt with partly in the wards of the Sydney Hospital and partly in the Prince Alfred Hospital, under a re-arrangement with regard to the general Government patients elsewhere indicated. At present the number of beds set apart for ophthalmic cases in the latter hospital owing to more pressing calls on the accommodation is stated by Professor Wilson, Dr. MacCormick, and other witnesses to be too small for effective clinical teaching in connection with the medical school.

By this arrangement the principle which, in our view, should guide the Government in dealing with this Department, as with all hospital work, will be carried out. The Government will itself provide for the more chronic cases, and will send to and pay for in the General Hospitals (liberally if need be) for all the acute cases requiring active treatment, and operative interference which can be best carried out in one of the large metropolitan hospitals with an adequate honorary medical staff.

The present financial arrangement between the Government and the Sydney Hospital authorities so far as regards "Moorcliff" cannot be held to be fair to the former. The Government pays the rent of the houses at "Moorcliff," and allows 3s. a day for every patient admitted on Government orders. These patients constitute fully two-thirds of the total number of inmates,\* and as the cost of maintenance at "Moorcliff" is estimated at 13s. a week, the Sydney Hospital funds benefit to the extent of 8s. a week, without considering the payment for rent, for each patient, or to the amount of about £1,200 a year. It is possible that if the Government did not supply funds to the Sydney Hospital in this it might be called on to do so in some other way; but the present arrangement does not commend itself as a business transaction, especially as the chronic patients could undoubtedly be maintained in wards in a Government hospital as above indicated for a sum even less than 13s. a week.

Under the arrangements proposed the Ophthalmic Hospital at "Moorcliff" would melt away, and there would be no need for renewing the lease on its expiry in 1901, or for the Government to undertake the building of a separate Ophthalmic Hospital at a very large expense for site and structure.

\* The number of Government patients on 25th May, 1899, was 60 out of a total of 71, or 84·5 per cent.

## DISPENSARY, REGENT-STREET.

The Dispensary in Regent-street is managed from the Sydney Hospital and is really a branch of the out-door department of that Institution, by means of which the patients living in its neighbourhood are saved from going to the hospital for advice and medicine. The physicians and surgeons in charge of the out-patients at the Sydney Hospital visit the Dispensary at stated times, and one of the Dispensers of the hospital is in attendance at these times to give out the medicines ordered. There is no provision for visiting patients at their own homes; and in the event of their inability to visit the Dispensary, they must call in other medical assistance or go into hospital. The Directors of the Sydney Hospital have more than once taken into consideration the advisability of discontinuing the work at the Regent-street Dispensary, and the majority has been in favour of doing so; but this work has been continued at the request of the Government, who have agreed to give a subsidy of £700 a year in consideration of the work being continued. The work as at present carried out is considered by the President of the Sydney Hospital to be unnecessary. He states :

453. I have gone to Regent-street on many occasions and examined the books and seen the patients that go there, and I doubt whether it would not be far better if those patients came to the out-door department at the Sydney Hospital. Nine-tenths of them are cases which could come without any difficulty at all, and it is questionable whether the other tenth ought to get hospital treatment—whether they should not pay for treatment, and whether they should be treated at a public dispensary at all. A dispensary, with a person attached to go and visit the poor who are unable to pay for attendance, would be a valuable thing.

Dr. Graham's evidence on the same subject is as follows :—

1695. You do not think it is necessary or useful work? I think it is an absolute discredit to us as now conducted. That is my view of the question; but I think it could possibly be made to do good work, and if my suggestions had been carried out it would have done good work. It would if it was established as a dispensary similar to those in the Old Country, where a doctor resides and attends casualties, sets broken arms, extracts teeth, makes casual visits to deliver women taken ill, and so on. We should make a pure dispensary of it, and put it under the rule of some charitable organisation. Then I think it could be made to do good work; but as it is now I do not think it is a credit to any scientific institution.

1696. You would have more than one medical officer for the whole of Sydney? I think one man could do the work, because the amount of casualty work that you get is very slight. I know from my experience of the Old Country that one resident dispenser in a huge district can do a great deal of work of that kind. I think there is a want of that type of assistance. I suggested, when I got the Board to abolish the institution, that it might be handed over to the Students' Medical Society, who might run it themselves. It might be conducted as a medical mission, where you combine religion with medical work. That type of work is carried on all the world over.

1697. A medical mission? Yes, or purely a dispensary.

1698. On English lines, visiting people in their own homes? Yes.

1699. You are of opinion that there is a want of that sort? Yes, a distinct want. The experience of every medical man in the city is that there is a difficulty of knowing what to tell poor people when they come begging you to see a sick man or woman. You send them to a hospital unless you go and attend them as a matter of charity, which you often have to do. A man comes weeping and tells you that his child has broken its arm, or that he has a wife who is dying, and he is in destitute circumstances, and you must either attend as a matter of charity or send the case to the hospital.

1700. Then they go to the police, the police surgeon is sent for, and they are sent into the hospital to occupy beds, he not having time to attend them? Yes.

1701. Do you think an institution of this kind properly administered would prevent a good many people being sent to the hospital who are now sent there? Yes, I think it would. It would relieve the hospital very much of a form of congestion which should not exist.

1702. You talk of putting them under the Students' Medical Society;—do you not think it would be well administered as part of the Benevolent Society? I do not think so. I think that anything connected with scientific work should be out of their hands, and you cannot dissociate the scientific from this class of work.

1703. You say it will be done at a very much more reasonable rate if done by an organisation already existing than by one started as a separate affair? Yes; because you would require a good deal of voluntary work which you would readily get from such an organisation as the Students' Medical Society. You would have to put in such a type of doctor as is found in the Students' Medical Society—young graduates. There are plenty in the society who would do good work, and moreover, it would be educational work for the students. Their course of study prescribes that kind of work, and they must get it either at the hospital or from a doctor, or else in some way that has not yet been established—from a dispensary. I mean the term that he has to put in for outdoor visiting or medical work. He could get that education from such an organization as the dispensary; so it would be educational work, too.

and Dr. Mackellar is in substantial agreement with the other witnesses—

2624. As a Director of the Sydney Hospital, you will be able to tell us something about the Dispensary in Regent-street;—do you think that is performing any useful work, or that it should be continued? I do not think so.

2625. You think that, as at present situated, the Institution is really doing no good? Not any adequate good to the payment made for it.

2626. And do not you think that if a separate free dispensary was established from which patients could be visited at their own homes, and in which students, under the charge of a competent medical man, could get their midwifery done, and also assist to visit these patients, it would be a very useful institution? I think that it would.

2627. You think that would meet a want that exists? I think that is a want that exists in all large towns where there are poor people.

It must be remembered that these three gentlemen have not only a wide acquaintance with the needs of the sick poor, but one is the President and the other two are Government Directors of the Sydney Hospital, under which the Regent-street Dispensary is worked. The cost of the Dispensary, as at present managed, cannot be exactly ascertained, as the Dispenser employed has also duties at the Hospital, and the drugs used are part of the ordinary hospital stock. There can, however, be no doubt but that, even after paying a high rent for very inadequate premises, a considerable part of the sum paid by the Government goes to the general current account of the Sydney Hospital, and that, so far as the Dispensary itself is concerned, neither the public nor the Government get due value for the money voted.

We are of opinion that this Dispensary, in its present form, should cease to exist, and that the money granted by the Government would be much better expended in subsidising a dispensary established on the much wider lines indicated elsewhere in our Report, and including, as an essential part, the visitation at their own homes of patients too sick to attend at the dispensary.

#### THE PROVISION MADE FOR THE TREATMENT OF SICKNESS BY FRIENDLY SOCIETIES AND PROVIDENT DISPENSARIES, AND THE NECESSITY FOR A FREE DISPENSARY.

As incidental to our inquiries and bearing on the question of hospital accommodation, and the way in which the pressure on this, as stated to exist at the present time, could best be met, we have deemed it advisable to obtain some information as to the provision which exists in the metropolis for treating the sick poor and the less well-to-do classes apart from the hospitals. In the first place it is only right to mention that the members of the medical profession attend to a very large number of sick persons from whom no payment whatever is received or expected, the transaction being one simply of private charitable aid.

The operations of the friendly societies, almost all of which supply medical aid and medicines to their members under certain regulations, cover a very extensive field, and meet the needs of a large number of the more provident class dependent on weekly wages or small salaries.

We are informed by the Registrar of Friendly Societies that the number of members of friendly societies at the end of the year 1897 was 69,124, which is less by over 2,000 than the number in 1893. The reduction he attributes to commercial depression, and consequent inability of people to pay the membership fees, which has led even to the closing of some of the lodges; but the number of members is now gradually increasing. The present number is thought to be about 70,000, and on the basis of  $4\frac{1}{2}$  persons to a family, it is estimated that 315,000 individuals, or about 23 per cent. of the population participate directly or indirectly in the benefits offered by the societies in return for the fees charged. These benefits vary with different institutions, but, generally speaking, include medical attendance and medicines during sickness, payment of stipulated sums to members during incapacity to work on account of illness, and allowances for burials.

The following particulars for the year 1897 have been furnished by the Registrar:—

Number of members sick during the year	...	...	...	11,054
Amount paid to sick members...	...	...	...	£56,561
Average paid to sick members per sick member	...	...	...	£5 2s. 4d.
Amount paid for medical attendance and medicines...	...	...	...	£63,979
Average paid for medical attendance and medicines per sick member	...	...	...	£5 15s. 9d.
Number of members who died...	...	...	...	536

Some of the lodges have each their medical attendant or attendants and chemists; others have co-operated and engaged a staff of medical practitioners and established a dispensary for the joint benefit of their members. This, it is said, enables the medical, dispensing, and other services to be obtained at a lower cost than is the case with societies not so united.

In isolated lodges the medical men are paid fees of varying amounts, from about 16s. a year per member, which seems to be the usual sum, up to 26s., which we understand is the highest sum paid by any one lodge. In the case of the Manchester Unity Order of Oddfellows, the united Sydney lodges of that order employ a staff of four medical men, each of whom receives £250 a year. All sick members are expected, if able, to attend at the dispensary; if not, they are visited at their homes by the doctors. Special fees, it appears, are paid to the doctors in all instances for maternity cases.

The membership of friendly societies is not confined to any class, and no wage limit is fixed for its members; any person, therefore, although in a financial position to pay the ordinary fees for medical attendance, may belong to a society and avail himself of its medical provisions.

When seeking membership, however, the candidate has to submit himself to a medical examination, more or less strict, and if found to be in ill health is, according to the rules, refused admission. This has the effect of excluding a large number of persons from the benefits of friendly societies, so that, including those who cannot afford to join, there is a considerable number of people for whom medical treatment must be provided in some other form.

Provident dispensaries, apart altogether from friendly societies, have been found to work satisfactorily in small and medium-sized towns in England, where they can be worked from one centre. The essential principle of these is the payment of a small weekly or monthly contribution by the members or subscribers, as an assurance of medical assistance when required, to a central committee or board of directors, who have only a philanthropic interest in the dispensary. The committee builds or rents rooms for out-patients and for the issue of medicines, engages a dispenser, and places on its list a number of medical practitioners of good standing—anyone of whose services can be selected and called in by the member in case of illness. The medical officers are either paid a fixed sum for each visit, or at the end of the year the excess of income over expenditure, after certain reserves have been made, is divided among the medical officers in proportion to the number of their attendances. These institutions have not been found to work well, or indeed to in any way prosper in London or other very large cities, where the population is migratory and the distances from one neighbourhood or district to another large. It has not been found easy to map out a large city into districts, and arrange that a person leaving one district—and, therefore, the provident medical association—could attach himself to the association of his new district. These difficulties have, however, been lately met in Sydney by a modification of the rules of some of the English provident dispensaries so as to fit them to local conditions.

In carrying out this scheme the rules of the provident dispensary at Eastbourne, which has been the subject of commendation by the leading English Medical Journals, have been the chief guide in framing the constitution of the City and Suburban Provident Medical Association in Sydney which has now been established nearly two years, but the advantages and benefits of which do not appear to be as yet fully known. This association is managed by a committee of medical practitioners, and its

its staff consists of a secretary, who is a medical practitioner, an assistant secretary, and certain collectors. By the payment of small weekly fees, which the collectors call for at the homes of the members, the members can ensure for themselves and their families medical attendance and medicines when necessary.

The association has a central office in Bathurst-street, and its objects are set forth as follows:—

“This association has been founded for the purpose of providing medical attendance and medicine for those unable to pay ordinary medical fees. Single persons whose incomes do not exceed £125 per annum, and married persons whose total income does not exceed £200 per annum, are entitled to the benefits of the association.

Admission of members—entrance fee, 2s. 6d.

Unmarried persons from 16 to 20 years of age pay at the rate of 6d. per week.

Persons with incomes up to £50 per annum pay at the rate of 7d. per week.

„ „ from £50 to £100, pay 7½d. per week.

„ „ „ £100 to £125, pay 8d. per week.

„ „ „ £125 to £150, pay 9d. per week.

„ „ „ £150 to £175, pay 10d. per week.

„ „ „ £175 to £200, pay 1s. per week.

Payments to be made fortnightly, monthly, or quarterly in advance.”

The association has on its lists nearly seventy general medical practitioners in Sydney and suburbs, and a consulting medical staff of upwards of thirty, and from the medical practitioners the members can choose their own medical attendant and can change their medical attendant if they change their residence. The consulting staff have agreed to charge half their usual fees, and the medical practitioners are paid annually a sum in accordance with the number of patients on their list. All the subscriptions by members, after the payment of the staff and the provision for contingencies, are divided among the doctors who attend and the chemists, of whom there are thirty on the list of the association, who supply the medicines. The wage limit is fixed at £200. A medical examination is necessary before members can be admitted, and they must be certified to be in good health, though special cases are admitted on special terms. The number of contributing members is now about 1,700, and is increasing. The association neither advertises nor canvasses for members, but a large number are recommended to join by the medical practitioners of the city and suburbs because they are unable to pay the usual fees, and others are sent by the medical superintendents and other officers of the hospitals. The association is in no sense a charity. It has no objects and aims except those above set forth, and there are no benefits accruing to anyone except the patients and the medical practitioners. It is thus commented on by the *Australasian Medical Gazette*: “The general statement may be made that through the society’s agency at present about £1,800 per year is collected from the poorer classes to ensure them attendance and medicine, which otherwise would have to be provided by means of public or private charity. Such a movement must help some little towards reducing the present over-crowding of our hospital wards and out-patients’ department and, moreover, has a good educative influence on the poorer and more improvident classes. It teaches them that medical treatment must be paid for except in cases of real destitution; it shows that persons with limited incomes can have a doctor’s services without imposing on our public charities or asking gratuitous service.”

Another society was started about three years ago, and is called The People’s Prudential Benefit Society (Limited), and the evidence shows that it has a large number of members and has seventeen medical practitioners on its list. Its members contribute small weekly fees, which ensure them medical attendance in case of sickness by one of the medical practitioners on the lists of the society. It has no wage limit for its members, and a certificate or declaration as to health is necessary before admission as a member. This society is, however, managed on a totally different footing, and among its benefits is a provision for funeral expenses, &c., in case of death and a compensation allowance in the case of temporary disablement from

from accident and from specified diseases. It is a registered limited liability trading company, managed by directors, who have an invested capital, and not by the medical practitioners themselves; and, though no dividends have yet been paid—all profits so far having been placed to the credit of a reserve fund—it is intended to pay dividends from the profits. It can be readily understood that this society is not regarded with any friendly feeling by the majority of medical practitioners, especially as the fees paid to those who consent to be placed on its lists are considerably below those paid by friendly and other societies and by the City and Suburban Provident Medical Association abovementioned, and as there is practically no wage limit for members. Still the society is providing medical attendance and care for those who are provident and avail themselves of its provisions, and so helping to relieve the over-crowding of hospitals and the abuse of public charities, though, perhaps, on lines which are not altogether free from objection.

It appears, then, that provision is made through the friendly societies and the provident medical associations,—the operations of which seem capable of very considerable extension—for supplying to the more provident of the wage-earning class and to persons with small incomes medical attendance and medicines on terms which are equitable, and into which the question of charity in no sense enters. There is, however, a class of the population which is not provident, and cannot, apparently, be made so, and the individual members of which are often outside the pale of friendly societies and provident medical associations, because they are already damaged in health and cannot pass the physical examination which is required for membership. For this class there is in Sydney, so far as we have been made aware, no provision except the hospitals and their out-patients' departments.

For many years a special dispensary department was attached to the Sydney Hospital, under which a number of medical officers, paid comparatively small salaries, attended at the hospital and saw the out-patients, and it formed part of their duty to attend at the homes of those patients who were so ill as to be unable to visit the hospital. The city of Sydney and some of the more populous neighbourhoods adjoining were divided into districts, to each of which one of the paid medical officers was attached. These officers were medical men in general practice, and were not, as is the case in many of the dispensaries in Great Britain, solely the paid officers of the institution and engaged entirely in its work. On the reorganisation of the hospital, for reasons which have not been shown to us, the services of these medical officers were dispensed with. The system of visiting the patients at their own homes ceased, and the out-patients' department of the hospital was placed under the junior honorary medical officers attached to the hospital staff.

The Government Medical Officer for Sydney states, that since this special dispensary department of the Sydney Hospital has been abolished a great increase of work has fallen upon him owing to his being sent for by the police to attend to destitute and urgent cases; and that, as he is unable, owing to other duties, to continue in attendance on these cases, he has frequently to give orders for their admission to one or other of the metropolitan hospitals, when they might, with proper medical attendance, be treated at their own homes. In this way Dr. Paton thinks that hospital beds are occupied which need not, and should not, be if a dispensary existed.

Dr. Graham, Dr. Purser, Sir Arthur Renwick, Dr. MacCormick, Dr. Knaggs, Dr. MacCulloch and Dr. Kelly also pointed to the necessity for some free or charitable dispensary in Sydney to meet the wants of the more needy and improvident classes, who could be treated in their own homes without being sent to hospitals.

Dr. Graham's evidence on the subject has already been quoted, and the evidence of the other witnesses is as under:—

Sir A. Renwick—

495. You said that in your opinion it is advisable that some dispensary system should be established in Sydney? Yes; very advisable.

496. And you think that if people were treated at their own homes by a dispensary medical officer it would save the admission of a great many people into the hospital? I have no doubt about that. Our former experience proves that. The Sydney Hospital at one time, instead of having the present

system, had honorary physicians, honorary surgeons, and dispensary surgeons. There was a dispensary surgeon attached to each ward at the city, and those dispensary surgeons gave orders for medicines to the poor people whom they visited, and the medicines were got at the Sydney Hospital. It was a great boon. Now if a person is ill and not able to go to a doctor, he is put into a cab and taken to the hospital at once. Most of such people would remain at home, and it would save the hospital a considerable amount in regard to maintenance, if we still had the old system. Some of these cases are cases that should go to other institutions—to Little Bay or to Parramatta, or one of the other places—but they are all brought to the Sydney or the Prince Alfred Hospitals.

497. Are you aware that since the dispensary surgeons have been done away with, a great deal more work has fallen upon the police surgeon? Yes.

498. That he is not able to find time to visit the patients at their own homes, and orders their admission to the hospital; whereas, if there were a dispensary surgeon, they would be treated in their own homes? I quite agree with that.

#### Dr. S. T. Knaggs—

2604. Do you think there is a necessity in Sydney for a free dispensary on the lines of the dispensaries in the old country;—do you think that it would prevent a number of people from going to the hospital who at present have to be sent there? I always thought that the out-patients' department of the hospital would attend people at their homes. If you establish a free dispensary you will want to have a regular outfit there, and appliances for dressing wounds.

2605. Patients are not attended at their own homes from any of the present hospitals? You mean a kind of bureau, where medical men could always be called on?

2606. I mean a dispensary at which patients could attend as out-patients, and from which, in case of illness, they could be attended at their own homes? I think it would be of great service.

2607. And it would prevent people from going to the hospitals who are now obliged to go there? Yes; if people could have free medical attendance at their own homes many would much rather not go into a hospital.

2608. Are there not a large class who are not, and cannot be, members of clubs? There are, and they are really the people who most need medical advice, as they are excluded from the clubs owing to their having a tendency to bad health.

#### *Note by Dr. Knaggs, on revision of evidence.*

With regard to your project of having a free dispensary for such patients as are unable to pay for advice and medicine, I cordially agree with it, and think the idea an excellent one, which will greatly contribute towards relieving the hospitals of having patients sent to them who could be treated at their own homes. As a rule, I find patients do not wish to enter a hospital, but their inability to pay for medicine constrains them to do so.

I think it would be very desirable to establish a dispensary in some central part of the city, with two qualified medical men, a dispenser, and a married couple, to look after them. Possibly two graduates of Sydney University might be engaged on the same terms annually that they receive from the local hospitals.

A superintendent (say, some senior member of the profession having experience of dispensary and club practice) might be appointed to supervise, and be ready for consultation in serious cases.

#### Dr. A. MacCormick—

2736. Have you paid any attention to the dispensary system which is in operation in Edinburgh and other parts of the Old Country? Yes; I attended some of the dispensaries there as a student.

2737. Do you think it would be advisable to have some such system in Sydney? I do.

2738. What would be the advantages of it? It would relieve the out-patients' department of the hospital, and it would provide a field for teaching students for the University. In Edinburgh the students pay a small fee to the dispensary, and they see all the out-patients. They get the names and addresses of patients who are very ill, and visit them. When they are in any trouble, or doubt, a fully qualified medical man is called in.

2739. Such a system as that would relieve the hospitals of a great many patients who go there now, and it would provide opportunities which are now wanting of educating our medical students? Yes.

2740. Evidence has been given to us that students in the hospitals, where they have first-class appliances of every kind, may be at a loss to know what to do when they visit patients in poor quarters; so that a dispensary system would meet a want in that direction? Yes.

2741. Would you think that such a dispensary could be established here? I think so; in fact, there was some talk about it amongst medical men some years ago.

2742. From your experience, you think it would be a desirable thing? Yes, a very desirable thing.

2745. Would not a free dispensary also relieve the in-patients' department of the hospital? Yes, of course, by students visiting the patients at their own homes.

2746. Therefore there would be more beds left for urgent cases? Yes.

#### Dr. C. Purser—

2143. Has it occurred to you what would be the best way of providing for those people who are not sent to the hospital;—do you think it is necessary to establish in Sydney a dispensary on the lines of those in the Old Country? I think it would be a very good thing if it could be done apart from the general hospitals altogether. There are patients situated very far from the general hospitals, and it means a good deal in cost to them to travel in by rail and tram.

2144. But are there not many who would prefer to be treated in their own homes if there was medical provision for doing so? Yes.

2145. And who would not go into a hospital if they could be treated in their own homes? Yes; I am sure there are many who would rather be treated in their own homes if possible.

2146. You think that could be done by the establishment of a dispensary, from which medical officers could be sent out to attend patients in their own homes? In certain districts, yes.

#### Dr. S. H. MacCulloch—

2580. There are no free dispensaries in Sydney to deal with improvident classes, and those who cannot get into a society? No.

2581. Do you think such an institution is wanted? I think that under proper supervision it should be a good thing.



2582. You think it would prevent people from seeking hospital relief, either as in or out patients? I think it would. The system obtains in Edinburgh to a large extent.

2583. And in most English towns? Yes; but very much in Edinburgh.

2584. In connection with the dispensaries, patients are attended at their own homes? Yes; the dispensary is attached to the University in Edinburgh. There is a medical man for each dispensary, and there are dispensers, and a certain number of fourth and fifth year students take out-door practice in connection with the dispensary. When a person is ill a student is sent, and he orders medicine, which is given at the dispensary. If the student is not able to diagnose a case, he calls in the honorary medical officer.

2585. There much is done at a very little expense? Yes.

2586. And at a great saving of the hospital beds? Yes, a very great saving.

Dr. R. V. Kelly—

2692. I think the Charitable Dispensary fills up a very large gap in the medical charities. In Edinburgh they have the advantage of a large medical school, and they have scores of students to visit out-cases. If any difficulty arises they send for the doctor under whose supervision the students work. The same applies to midwifery, which is a very large branch, and a branch of medical charity which is very much wanted on account of its urgency. In Ireland the dispensing system is worked under the Local Government Board. The orders there are given by members of the committee, who are all ratepayers; and although it is a charity in one sense, there are no subscribers to it as in the case of the Edinburgh and other charitable dispensaries, which are kept going by private subscriptions. A dispensary like that would take off a very large number of applicants who go to the hospital-admission dépôt.

This dispensary need not necessarily be attached to one of the hospitals, and would probably do better work, and be more economically managed, apart from them.

It would seem, indeed, to be a work which might fairly be undertaken as a branch of the Benevolent Society, and might be carried out to some extent by the senior medical students at the University, under the direction of a competent paid medical head. It might, indeed, have as part of its programme the attendance on midwifery cases in the homes of the patients, and in this and other ways be a useful adjunct in a practical direction to the medical education as at present carried out at the University of Sydney. The total cost of such an institution, whether as a branch of an existing charity or as a new organisation, need not be large, and any subscriptions towards such an object might fairly be subsidised in the usual manner by the Government.

#### PROVISION FOR TREATMENT OF LOCK CASES.

The increasing prevalence of venereal disease in Sydney, and the inadequacy of the provision for its treatment, has been spoken of by several witnesses.

The Government Medical Officer for Sydney gives the following evidence:—

358. You do not send venereal cases to the other hospitals? Yes, we send female cases to the Sydney Hospital.

359. What is there to prevent you from sending the male cases to the Sydney Hospital? Because in the Sydney or Prince Alfred Hospital they would have to be nursed by women, and we do not think that that is right. They are, therefore, sent to the Coast Hospital, where they are attended by wardsmen. I do not think it right to mix them up in the same wards with other cases, on account of the danger of infection.

375. Are you aware if any complaints have been made by medical officers in the Squadron as regards the large amount of venereal disease in Sydney? I have heard that they have complained about it. I do not remember ever before meeting with so many cases as we have now.

The Medical Superintendent of the Sydney Hospital gives somewhat similar testimony—

1427. Have you found any increase in the number of patients suffering from venereal diseases? Yes; they are on the increase.

1428. Are they largely on the increase? I would hardly say largely; but certainly they are increasing.

1429. Does it often happen that female patients suffering from venereal diseases leave the hospital before they are cured; and are therefore likely to spread the disease? Yes, often.

1430. That has come under your observation? Yes.

1431. Can you suggest any remedy for this? The only thing would be to keep them in the hospital until they are cured; to have some kind of compulsory confinement.

1432. How long do they stop in the hospital? The average period is about six weeks.

1433. Is that sufficient to complete the cure, so that when they leave they will not be sources of trouble again? No; not in many of the cases.

1434. It is not a sufficient time? No.

1435. So they go out and come back again soon, worse than before, and after having done any amount of mischief? Yes.

1436. What proportion of out-patients at the main hospital and in Regent-street do you think suffer from venereal diseases? I think quite half of the surgical out-patients.

1437. Can you tell us what proportion the surgical out-cases bear to the medical out-cases? Not exactly; but I should think about one-third of the total number of out-patients would be surgical cases, excluding the special out-patients.

1438. Then half of those are persons suffering from venereal diseases? Yes; one-sixth of the whole.

The following return furnished by the Medical Adviser to the Government shows the number of Lock cases applying for treatment at the Hospital Admission Dépôt from January 1, 1895 to 30 June, 1899,

Period.	Total number of applications for medical relief at the Hospital Admission Dépôt.		Number recorded as venereal cases.		Percentage of Venereal Cases of total applications.	
	Males.	Females.	Males.	Females.	Males.	Females.
January 1 to December 31, 1895 ...	6,071	2,759	749	170	12.33	6.16
" " 1896 ..	7,500	3,645	896	208	11.94	5.70
" " 1897 ...	7,349	3,773	863	173	11.74	4.58
" " 1898 ...	7,828	3,247	831	153	10.61	4.71
" June 30, 1899 ...	3,931	1,465	523	92	13.30	6.28
Totals ... ..	32,679	14,889	3,862	796	11.81	5.34

This return does not show any large increase in the number of applications, except during the last six months, but it does indicate in a measure the great prevalence of venereal disease, and the expense to the Government involved in its treatment, and is to that extent an argument for provision in the direction of preventing, as far as possible, the spreading of this form of disease.

Dr. Mackellar, whose attention has been specially directed to this question, is most emphatic in regard both to the want of hospital accommodation for this class of cases and the remedy which should be applied.

2622. In regard to Lock cases, there is some difficulty as regards the accommodation; the male patients are treated at the Coast Hospital;—do you see any objection to treating the female patients there also if they were properly fenced in and placed under proper supervision? Yes; I think it is entirely unsuitable. On this question I also addressed some years ago a memorandum to the Principal Under Secretary, which I have been able to get from the records of the Board of Health, and it is here:—

January, 1883. The fact that venereal disease exists to an alarming extent in all classes of the community no one can doubt, nor is there any question that the hospital accommodation at present available for its treatment entirely fails to exert any marked influence in lessening the number of those affected. This failure is due to a variety of causes; but I believe that it is chiefly owing to the exceedingly scanty accommodation afforded by the hospitals of this city for the treatment of such ailments.

I have the authority of Mr. Fosbery, the Inspector-General of Police, for saying that there are about three hundred (300) women in Sydney who live wholly by prostitution—that is to say, known to the police, and I think I may safely estimate the number of those who occasionally supplement their earnings by the same mode of life at fully double the number, so that we have a total of (900) nine hundred women very likely to acquire and disseminate the disease.

One of the Secretaries of the Association for Promoting the Extension of the Contagious Diseases Act of 1866 to the Civil Population of the United Kingdom says that the proportion of diseased to healthy prostitutes in London is one in three, whilst Mr. Symon, F.R.C.S., the late Medical Adviser to the Privy Council, in a recent paper upon prostitution, deemed the proportion of diseased women to be one in six. If we adopt the latter estimate, we have one hundred and fifty (150) women constantly affected, while for their treatment at the present time there are in Sydney Hospital only ten beds available, and none at either the Prince Alfred or St. Vincent's Hospitals.

The Secretary of the Sydney Hospital informs me that the Lock Ward is always full, and that females are frequently treated as out-patients, both for gonorrhœa and syphilis, whilst males with gonorrhœa are, as a rule, not admitted to the hospital, but treated as dispensary patients. It is clear, therefore, that a very much larger accommodation for the treatment of the disease is absolutely necessary; but, in my opinion, merely increasing the number of female Lock beds in the general hospital would not meet the difficulty, as those institutions afford no special facilities for the treatment of these cases; and, further, a considerable amount of publicity, which is very much objected to by such persons, is unavoidable in their treatment in a general hospital. Under these circumstances, it is not surprising that both syphilis and gonorrhœa are rapidly disseminated throughout the community.

It is in vain to expect that a woman of the town will at once desist from prostitution on being infected with venereal disease. She is usually totally destitute of means wherewith to pay for her maintenance and treatment whilst ill, and, as a natural consequence, continues to practice her calling much to the detriment of her own health, and with destructive results to the general community.

I have given much careful consideration to this subject, and am forced to the conclusion that State interference in some way is absolutely necessary, either by police supervision and medical inspection, which, however, is objected to by a large portion of the community on both moral, constitutional, and even medical grounds, or the establishment of Lock hospitals, where diseased women could readily, without charge, and with a reasonable amount of privacy, obtain the most skilful treatment—not subject to the supervision of the police. I desire to give my emphatic opinion that the latter course is in every way the more desirable.

I would recommend that a special institution, wholly under Government supervision, should be opened for the treatment of females suffering from venereal disease; that in it every facility should be offered for the ready and skilful treatment of such disorders, and, although I fully recognise the difficulty likely to be encountered in administering such an institution, I would nevertheless recommend that it should be on the voluntary principle, and that the inmates should be free from police supervision, and subject only to the regulations under which all public hospitals are governed.

I might have added there that not only should they be free from police supervision, but from the supervision of meddling busybodies who are trying to reform them, who are just as harmful as the police

police in meddling with such cases, and who, I have no doubt, prevent these women availing themselves of the general hospitals, and would equally prevent them availing themselves of the treatment of this hospital.

Institutions of the kind suggested have been created in some districts of the United Kingdom, notably in Glasgow, where their establishment has been attended with a large amount of good.

As regards the treatment of the male portion of the community, I think the present arrangements in the general hospitals are quite adequate, and that all that is required is that a larger number of beds should be allotted to venereal disease. I do not think that any good result would follow their treatment in a special institution.

Following on this minute the Colonial Secretary of the day caused a large sum of money—some £5,000 or £7,000—to be placed on the Estimates, and I was directed to choose a site, which I did at Miller's Point, a building which is now used as an eye hospital, and the Government resolved to take this building for the purpose I have indicated; but, some short time after that, some persons interested in the neighbourhood, together with some clergymen, waited upon the Colonial Secretary as a deputation, and they tried to show him that it was wrong to have such an institution, and that it should certainly not be in the city, that it ought to be clear away from the city, and so on, and meantime the vote lapsed.

2623. Then your objection to the treatment of the women at Little Bay is rather that they would have to go a long distance than from any difficulty that would arise in separating them from the male patients? Well, there would be very great difficulty in separating them from the male patients there. I do not think it would be a desirable thing to put the women there under any circumstances, but I think that the distance would be a very great objection. An institution such as that should be in such a situation that those persons who are affected could readily obtain access without any trouble. It is so very much in the interest of the general public that they should be relieved of their ailments.

2656. All these facts show that it is a question which should be faced with seriousness at the present time? I do not doubt it.

2657. It has become a very urgent question? I would like to emphatically say that the institution which is designed to treat women should be separated from any other institution, and it should be made as easily accessible as is possible—that it should be absolutely private, and that there should be no police supervision whatever.

2658. They should be encouraged to take advantage of it, not compelled? Well, I satisfied myself at the time that they would take advantage of it. I took a great deal of trouble, before writing that memorandum, to satisfy myself that what these people objected to, and the reason they did not go for treatment, was because of their being overlooked, as it were, by servants of the institution and by the visitors to the general hospital, and I have no doubt that the desire of certain very well-meaning persons to reform them also interfered somewhat with their willingness to go to an institution of that sort.

For the treatment of venereal cases in men there is provision in the shape of a detached ward at the Coast Hospital, not now sufficient to meet requirements, but it will not be difficult to add to this at a small expense, so that the provision for men need not here be further considered. But for women the only provision made is twelve beds in a portion of a ward specially set apart for this class of cases in the Sydney Hospital, a number which is decidedly insufficient. Moreover this provision is not made in a form likely to induce women to take advantage of it. In a general hospital, and especially when this hospital is in a prominent position, women of the class needing treatment feel out of place. They are undoubtedly considered to some extent as outcasts by other patients, and they know it, and are reluctant to seek advice and treatment under such conditions.

By reason of the presence of a large floating population made up of casual visitors, and of scamen belonging to the ships of war and to the mercantile marine, the conditions in Sydney differ but little from those of a garrison town, and in the absence of any Act regulating the treatment of contagious diseases a large amount of venereal disease must be expected. The best way of minimising this, under the circumstances, would seem to be by offering facilities for care and judicious treatment to the class immediately and chiefly concerned in its propagation under conditions which they will avail themselves of.

Various objections have been raised to the treatment of this class at the Coast Hospital, and we consider that these are in the main valid, and the course which seems most advisable is for the Government to establish a Lock Hospital for women, to contain about thirty beds. Such an hospital would, in our view, be managed as a separate institution under the Department of Government Asylums for Infirm and Destitute in a more satisfactory and economical manner than if affiliated to any of the existing hospitals, and the details as to site and buildings may fairly be left for consideration when the subject is dealt with. On the establishment of such an institution the twelve beds at the Sydney Hospital might be allocated to other purposes.

## PAY OR "PART-PAY" SYSTEM IN HOSPITALS.

What is called the "pay system" in hospitals, by which is meant payment by patients for or towards the cost of maintenance, has engaged our attention, both as bearing on the subject of hospital administration, and in relation to the sufficiency of the hospital accommodation. Much evidence has been given on this subject, but we do not feel that much that is new has been, or indeed can be, said on this question, which is by no means a new one, and has been discussed in all books and in most reports dealing with hospital management.

In England the general hospitals, those which are supported by voluntary contributions and those which are endowed, and whether situated in London or the large towns, almost without exception make no charge for maintenance and care; and though they will accept donations from those who have been brought to the doors owing to serious accident, the general principle on which they are conducted is that the beds are free and intended for the treatment of the sick poor.

The two large London hospitals, Guy's and St. Thomas's, when in time of stress their funds did not permit of the opening of all their wards, devoted one or more of these to the reception of cases paying for their maintenance, but the rates fixed were somewhat high, and the arrangement was distinctly intended to benefit the general funds. This arrangement was not generally approved, and we understand has now been discontinued.

On the other hand, the cottage hospitals which are now scattered throughout England in the smaller towns and larger villages, and many of the special hospitals in London, have adopted the pay system as a part of their organisation, and take small or large sums for or towards maintenance, according as the patients can afford to pay these, some of the payments being as small as 2s. 6d. a week and others exceeding the maintenance rate of the hospital and bringing in a distinct profit thereto.

The pay system or part-pay system exists in all the hospitals in this colony except the Thomas Walker Convalescent and the Kogarah Cottage Hospital in the metropolitan district, and perhaps Goodooga and Scone in the country, in which the patients appear to have contributed nothing in 1898.

This system appears to have grown up with the hospitals. In any consideration of it, however, in this colony, a distinction must be drawn between the country, and the metropolitan and suburban hospitals, and in regard to this question the hospital at Newcastle must be considered with the latter rather than the former class.

The objections made to payment by patients in the country hospitals, whether these patients occupy private beds or beds in the general wards, or whether they pay small sums according to their means, or such sums as cover the cost of maintenance, or are remunerative to the hospital, appear to be few, especially when the medical attendance at the hospital is divided among the medical men practising in the neighbourhood, and is not confined to one medical practitioner.

The main reasons for this appear to be:—

- (1.) That in the large majority of cases there is no serious or constant pressure on the hospital accommodation, there being empty beds except during special outbreaks of disease.
- (2.) That the medical officers are for the most part paid small salaries or retaining fees—in 85 hospitals out of 95 such fees are paid, and there appears no valid reason why such an arrangement should not be made in all—and in a number they are also allowed to receive fees from patients admitted to private wards, in accordance with arrangements made between them and the individual patients.
- (3.) That owing to the scattered settlement in many districts it is difficult, if not impossible, to obtain proper nursing and care in the houses of the patients, and frequent visitation by the medical practitioner, however necessary this may be, cannot be carried out. Besides this, the fees for long distances cannot be paid by the majority of the patients on any scale that would remunerate the medical practitioner for the time spent in travelling, to say nothing of his skilled services. (4.)

- (4.) The townships and districts are for the most part so small as to preclude the establishment of private hospitals, or to keep skilled nurses unattached to hospitals in constant employment.

Under these circumstances there does not appear to be any very valid reason why payments should not be asked of and gladly made by patients who belong to the less well-to-do classes of the community, or why in exceptional instances persons who are more wealthy should not be received, provided always that the committee of management sees that payments are made in accordance with the means of the applicants, that the charity of the hospital is not abused, and that the medical officers are not dissatisfied with the arrangements made. Under any circumstances abuses of this kind are much less likely to occur in country districts than in towns, as the circumstances of most people are fairly well known to their neighbours, and the Hospital Committees are more or less easily able to obtain information.

The question, as applied to the metropolitan and suburban hospitals and to Newcastle, which may be considered metropolitan for this purpose, is a much more difficult one. The objections made to the system are mainly as follows :—

- (1.) That it is difficult, if not impossible, to arrive at the circumstances of patients, and that these frequently obtain treatment for sums much less than they can afford to pay, and thus subterfuge and deceit are encouraged.
- (2.) That the hospitals compete unfairly with medical practitioners individually, and with organisations, such as provident dispensaries, in which medical practitioners are directly interested.
- (3.) That the hospitals are using the time and skill of their own honorary medical officers, who receive no profit from the hospitals, to increase the hospital funds and to attend on cases from which they or other medical practitioners would, under other circumstances, receive fees.
- (4.) That if beds are occupied by persons able to pay, these cases exclude other and poorer patients for whom the hospitals are built and primarily maintained, and on whose account subscriptions and donations are sought.
- (5.) That when the patients are remunerative there is a tendency on the part of the hospital management to admit these in preference to the more necessitous cases.
- (6.) That when patients pay even comparatively small sums towards their maintenance, they are relieved from all sense that they are, in a measure, recipients of charity; they have an idea that they are paying for their treatment, and accept hospital treatment when they otherwise would not; and because and on account of such payments, their demands on the attention of the nurses, and their requirements generally, are excessive.

We find a general consensus of opinion, that private wards in the main general hospitals are neither necessary nor advisable in Sydney or in any city where the population is sufficient to allow of the establishment of private hospitals on a satisfactory basis, and the Directors of the Prince Alfred Hospital have already recognised this fact, and now admit to their private wards only (1) naval officers, for whom one set of these wards was specially built and dedicated by a generous donor, and (2) special cases, including students of medicine, who are received without payment, after consideration by the committee.

The richer class of patients can get thoroughly suitable accommodation, care, and treatment at varying rates, none of which seem excessive, in the private hospitals which now exist and are increasing in number; or in the St. Vincent's and Lewisham Hospitals, which have a number of beds for this class of case. But there is, admittedly, a gap in the hospital accommodation in the shape of provision for patients able only to pay from one to two guineas a week for private wards or remunerative amounts in the public wards. This gap will probably be filled by private enterprise, and hospital accommodation afforded at rates which people of very moderate means can or should be able to afford, if the general hospitals no longer admit remunerative paying patients; and we trust that attention having been drawn in our Report to this urgent requirement private enterprise will be stimulated to meet the want.

The

The reception of what are called remunerative cases in the general wards of hospitals, is objected to by all the medical witnesses, some fifteen in number, examined on this point. The objections raised are various, but the main one is, that these cases are only too willingly received by the hospital management, and crowd out the more destitute cases for which the hospitals are primarily, if not exclusively, intended. This opinion appears valid, and on other grounds we do not consider the reception of cases paying sums approaching to or in excess of the cost for maintenance desirable; but there is a considerable divergence of opinion with regard to receiving sums ranging from 5s. to 15s., or £1 a week. The medical, ethical, administrative, and personal objections urged against the pay system as a whole are in a large degree disposed of when admission to hospitals is confined to poor as opposed to remunerative paying patients. Some nine witnesses, however, all medical practitioners, connected in one way or other with hospitals, and in most cases having a wide hospital experience, object *in toto* to the hospitals receiving any sums whatever from patients; but five others, also medical practitioners, whilst objecting to remunerative cases, see no reason to object to the payment of small sums by those able to afford them. It is somewhat noteworthy that among these are Dr. Ashburton Thompson, Sir Arthur Renwick, Professor Wilson, and Dr. Graham, all of whom are public officials or directors of hospitals, who look on the matter from a somewhat different point of view from the medical practitioner who is not in an official position. The sums received from patients on account of maintenance in the subsidised metropolitan hospitals in 1898 were as follows:—

	£
Sydney Hospital ... ..	2,296
Prince Alfred Hospital ... ..	2,414
Children's Hospital ... ..	408
Women's Hospital ... ..	184
Suburban Hospitals ... ..	312
	<hr/>
Total ... ..	£5,614

and even if the remunerative class of patients were excluded, the aggregate sum of the contributions would be large and difficult to make up in other ways. The witnesses who object to any charge being made to patients offer no suggestion as to meeting the monetary difficulty which is likely to arise, except by establishing boxes for donations, which experience has not found to be attended by any large addition to the revenue of hospitals; but several advocate special wards for paying patients, or special hospitals for paying patients, on the ground that whilst the rich and the poor are each well provided for, there is no provision available for the classes that can pay something, but not the full cost, of private hospital or the best private treatment.

The opponents of the so-called part-pay system say in effect:—

1. Either let the assistance be a charity pure and simple, so that the patients know what it is before they accept it, or let people pay for what they get, but do not mix up the principles of charity and self-support so that a person believes himself to be supplying his own needs, whilst at the same time he is more than half paid for by others and is receiving charity to that extent.
2. By taking fees of 5s. or 10s. the hospitals are really acting hardly to a class who are really necessitous, and cannot in time of sickness pay these sums without privation and distress.
3. The hospitals, by taking fees, are entering into unfair competition with the general practitioner individually, and with the provident dispensaries.

The upholders of the system urge, shortly, that it is better for the poor to pay something, however small, if they can afford it, than to pay nothing at all—that such payments are good morally for the poor and good materially for the hospitals, which would be in financial difficulties without them. “I do not see,” said one witness, “what harm you do in collecting a few shillings from patients who come to you. You relieve the patient of a bitter feeling that he is at the hospital entirely on sufferance. I think it is a humane thing to say: ‘Pay what you can afford.’”

Several

Several of the witnesses seemed to feel that the question was a difficult one to meet, and with regard to which it was almost impossible to lay down hard and fast rules; and two at least drew distinctions between medical, and surgical illness requiring operations, holding that a patient who could pay for the ordinary treatment of a medical ailment might be altogether unable to afford the fee necessary for a severe surgical operation and the expenses contingent thereon, and would refuse a patient admission who was ill with bronchitis because he could pay his own doctor, and admit him when he had hernia or some other ailment requiring surgical operation, and surgical dressings, for which hospital treatment was necessary, and for which he could pay partially. Altogether we find the subject bristling with difficulties, out of which there is no royal road. It seems impossible to lay down any law for the guidance of hospital authorities, and each case must be left to the discretion of the management.

#### OUT-PATIENTS.

In the Metropolitan District the number of out-patients attending at the metropolitan hospitals in 1898 was as follows:—

Sydney Hospital	...	...	...	...	...	...	...	21,491
Prince Alfred Hospital	...	...	...	...	...	...	...	12,493
St. Vincent's Hospital	...	...	...	...	...	...	...	7,644
Children's Hospital	...	...	...	...	...	...	...	4,082
Lewisham Hospital	...	...	...	...	...	...	...	538
Suburban Cottage Hospitals (including St. Joseph's, Auburn)	...	...	...	...	...	...	...	2,187
Coast Hospital	...	...	...	...	...	...	...	2,400
Women's Hospital, Crown-street	...	...	...	...	...	...	...	1,177
								52,012

No doubt the above figures include several individuals more than once in consequence of their having attended at different hospitals, or at the same hospital, several times in the course of the year, and been each time separately recorded. Taking that into consideration, however, it is hardly to be conceived that there were so many persons in such necessitous circumstances as compelled them to seek gratuitous medical advice and medicines, and the suspicion arises that the hospitals are very largely imposed on by persons who are in a position to pay their own medical attendants, or who ought by subscriptions to provident societies to be able to obtain the services of the medical officers attached to those institutions.

This impression is very considerably strengthened by various reports brought before us, and by some of the evidence given before the Commission. Various inquiries have on special occasions been made into this matter, but the most systematic was one made at the request of Sir Arthur Renwick, the President of the Sydney Hospital, by officers of the Chief Secretary's Department in the year 1895. From this it appears—first, that 14 per cent. of the applicants for relief “deliberately furnished misleading information, and could neither be found, or heard of, at the houses in which they represented themselves to reside.” Second, that of 220 individuals whose cases were inquired into and reported on, 94 only, or 43 per cent., were destitute, whilst of the remainder 14 per cent. could not be found at their stated homes, and 43 per cent. were able to pay sums varying from 6d. to 2s. 6d. a week each for their treatment. A number of cases are specially quoted as showing flagrant imposition on the Hospitals, and the conclusion arrived at is that fully 20 per cent. of the patients examined could have made private provision for their medical advice and medicines.

It may be at once stated that the recommendations and certificates as to indigence which patients bring with them cannot in the main be relied on. The President of the Sydney Hospital, who has a large experience, and is well qualified to judge, states with regret that the certificates under this head “have been found to be not in accordance with fact.” So that little or no help is obtained in this direction. The inquiries made by the Hospital authorities on the spot, and from the patients themselves, must of necessity be hurried and incomplete, though it appears that a number of obviously unfit cases are in this way eliminated, and assistance refused. It is, however, only by systematic inquiries carried out continuously by a special officer that imposition can be fully detected, and abuses reduced to a minimum, or stopped.

This

This appears to the Hospital authorities to involve such an amount of expense that it seems better to them, from a financial point of view, to put up with a certain amount of imposition and supply advice and drugs to a number of unworthy persons than to secure the service of a special officer. This is especially the case with the Sydney Hospital at which the majority (nearly half) of the out-patients apply. This Hospital, taking as it does under the system of registration to be hereafter mentioned about £660 a year from the patients in fees, and receiving £700 a year from the Government for the maintenance of the Regent-street Dispensary, is in the position that its Out-patients' Department is at present maintained at very little cost to the institution. No conjoint action on the part of the Hospital authorities in this direction appears to have been seriously considered, and each has practically, after some special and temporary inquiry followed by a discussion in Committee, left the question where they found it, and made no real attempt to cope with the evil.

The Sydney, and St. Vincent's Hospitals, and the Hospital for Sick Children, following the course taken in some of the special hospitals in London and the Melbourne and Wellington Hospitals, have for several years past charged a registration fee of 1s. to each patient on his first applying for treatment, though a number excuse themselves from this fee by pleading poverty. The sum collected in 1898 at the Sydney Hospital was £660; and at the St. Vincent's Hospital was, we gathered, with certain "offerings" made by the patients, sufficient to meet the immediate expenses of the Out-door Department. In the case of the Sydney Hospital, the registration covers a period of two months, after which another fee of 1s. is required if the patient continues to attend.

The Newcastle Hospital has carried this system one step further, and not only requires a re-registration and the payment of an additional shilling in all cases where the attendance extends over two months, but has introduced what appears the objectionable course of paying the Secretary of the Hospital  $2\frac{1}{2}$  per cent. on all sums collected from this source and also on the payments made by in-patients.

The Honorary Treasurer of the Sydney Hospital stated that since the system of registration was adopted, and the fee of 1s. charged, it had not been found that any material imposition was practised; but it does not appear that any real inquiry in the matter has been made since the system has been in operation, and it certainly has had no effect in checking the applications for relief, since the number of attendances is yearly increasing at a very considerable rate, being, in 1898, nearly 10,000 more than in the previous year. A great increase in the number of out-patients has also taken place co-incident with the imposition of a registration fee both at the Children's Hospital and at the Newcastle and District Hospital. It is quite evident, therefore, that this system has had no effect in reducing the number, and would indeed seem to have tended to increase the number of applicants under the idea that they are paying for what they get, and are not the recipients of charity. It has been found in Great Britain, where the payment of a registration fee is enforced at a very few hospitals, that it neither cures abuse nor lessens the number of applicants, whilst it is productive of some evils. It presses unduly upon the very poor, it gives a pretence for begging money to pay the fee, it gives an idea to the patient that he is in no degree the recipient of charity, and it makes the hospital a competitor against provident sick clubs and other forms of provident medical relief. Mr. Sampson Gamgee, of Birmingham, who has taken an active interest in Hospital administration, declares "that so long as persons know that they will be received as out-patients at the hospital on paying a shilling and stating that their earnings are below a certain standard, it requires no stretch of imagination to understand that a premium is offered to improvidence and fraud," and he gives some striking instances of the unequal and cruel incidence of this charge unless made with great care and by competent officials.

This so-called registration system for out-patients is all but universally and very strongly condemned by the medical witnesses who were examined before the Commission, and we do not think that it is in this way that the evils which undoubtedly attend the out-patients' department of hospitals are to be met.

At the Prince Alfred Hospital there is a box in the out-patients waiting-room for voluntary contributions, and from this source the hospital funds formerly benefited to the extent of £300 annually. This sum, from causes not fully explained, appears



appears to have greatly fallen off during late years, and, in 1898, the sum received was only £100, though the number of out-patients has doubled since the time when £300 annually was received.

We are strongly of opinion that the evils attending the out-patients' departments of the metropolitan hospitals have not been sufficiently considered by the directors. The cost to the hospitals is, on the whole, not very large, especially under the registration system; and it is very small in the case of the Sydney Hospital, to which the majority of the out-patients resort, considering the terms on which the Regent-street dispensary is carried on; but there can be no doubt that in this matter the hospitals are competing with the outside practitioner, and with provident dispensaries and other organizations, and that they are also fostering a spirit of pauperism and dispensing aid to a number of non-necessitous people.

It is not uninteresting to note how any increase in the staff of the honorary medical officers in charge of out-patients, the creation of any special department or any increased facilities for attendance, have at once become known to the public and resulted in a decided increase in the number of patients. In the year following the addition of any new special department at the Sydney Hospital the number of out attendances has always greatly increased, and there has been a similar experience at the Prince Alfred Hospital whilst on the appointment of the honorary physicians in charge of out-patients at the Children's Hospital—the out-patients having formerly been seen by the resident staff—the number of patients rose in the year 1898 from 2,860 to 4,082.

The evidence of Dr. James Graham on this point is especially interesting:—

1710. Do you approve of any payment for the registering of out-patients? Well, that comes under the same category as taking a collection from the patients who come in. I have watched the type of patients who come in now and the type who came before the shilling was charged, and I find that it is not altered. It comes to this, however, that we get over £600 a year by the payment of a shilling each from the same class of people from whom we got nothing before.

1711. It has not acted in any way as a deterrent as regards the number who come to the hospital? No; I do not think that is the source of attraction to patients. I think the principle that gives honorary medical officers the liberty to develop out-patients' departments is the principle that causes all the trouble. The Sydney Hospital has something like 100,000 out-patients in the year. That evil has arisen because there has been no serious check upon the honorary staff, who have a large say in the management, and every man who gets appointed wants to have as big a clientele as possible. It is the road to professional success, and the Board have been lax in allowing huge out-patients' departments to spring up in a building entirely unsuited for out-patients' work. If you get a man to start a special department, he will get dozens to come. If you start fifty more out-patients' departments, you will get them all largely attended.

1712. Every enlargement of the out-patients' department, and every new specialist appointed, will bring a large number of patients? Yes.

We are inclined to think that extra provision has been made by the hospitals for the treatment of out-patients in anticipation of any real and pressing needs, and experience has shown that any provision of this kind will at once induce numerous applicants for relief who formerly did not apparently consider their ailments sufficiently serious or their necessities such as to warrant applications for gratuitous treatment.

Further, Hospital directors are not exempt from a tendency to magnify their office, and to set forth the importance of, and the increase of, the work of the institution which they are called on to govern; and if they do not take steps to enlarge the sphere of its operations, they are inclined to view with complaisance the increase of the out-patients' department, whilst the system under which Hospital Saturday and Sunday funds and other collections are distributed to those institutions which show the greatest aggregate number of in- and out-patients tends to foster the evil.

The remedies for the evils of the present system are perhaps difficult to find, but a more systematic inquiry into the circumstances of both out- and in-patients is certainly necessary, and this inquiry can only be carried out by following up the inquiries made at the hospitals by visits paid by an intelligent inquiry officer at the addresses given by the patients. At first such inquiries would no doubt entail very considerable cost, but there is good reason to believe that in time the system could be carried out by one officer acting from a central office and on behalf of all the hospitals. When it became known that these inquiries were systematic and continuous, abuses would probably in a measure cease, and the work would become lighter.

The abuses might, we consider, be further checked—

- 1st. By insisting on a note of recommendation from the local medical practitioner in all cases coming from a distance or from outside any such area as could be worked by an inquiry officer.
- 2nd. By giving priority to all cases bringing recommendations from medical practitioners in the general out-patients' department, and by insisting on such a recommendation in all cases to be treated in the special departments of the hospital.
- 3rd. By refusing to attend to any but the more serious accidents and casualties, except in the case of patients obviously unable to pay, and referring the patients to their own medical attendant, by which the idea at present entertained, that every one who meets with an accident, however trivial, has some right to hospital treatment, might be corrected.

These recommendations, which have been arrived at after an attentive consideration of the evidence brought before us, are in substantial agreement with the proposals made by the Hospital Reform Association in Great Britain in 1898, and which are printed in Appendix F to this Report.

In regard to the country hospitals, the out-patients' problem does not afford any difficulties. The numbers are comparatively few, the relief sought is generally in the event of minor accidents and other casualties, and the persons are usually known to members of the committee or of the honorary staff. In special cases it is not difficult to obtain information through the police or otherwise.

#### TRAINING, HOURS OF DUTY, &C., OF NURSES.

The training of hospital nurses and other matters in connection therewith has occupied our attention, and, in view of an opinion not infrequently expressed that it is both unnecessarily prolonged and unnecessarily arduous, we have taken the evidence of the present and two or three of the past Medical Superintendents of the Prince Alfred Hospital, of the present Medical Superintendent of the Sydney Hospital, the present and the late Matron of the Sydney Hospital, the Matron of the Prince Alfred Hospital, and other witnesses on this subject. All authorities appear to be in agreement that a training for a period of not less than three years of probationary service in a general hospital, containing not less than thirty or forty beds, is indispensable, and that the training should consist of practical work, commencing with the details of domestic service, together with lectures, demonstrations, and examinations, before certificates of competency are granted; and there is also a general consensus of opinion that the course of instruction and examination should be similar in all the hospitals, so as to have a standard of competency. The work is decidedly arduous; but the probationers are now relieved from the more menial work, and the evidence shows that what is now insisted on is considered essential, is in various ways useful in regard to the object in view, and does not involve any undue strain on the physical strength of such women as are really fitted for the position of hospital nurses. It no doubt weeds out the weakling, the incapable, the "fine lady," and the sentimentalist; but it leaves all whom it seems desirable it should leave; and the evidence is emphatic that the training in these tends towards health and strength, as well as fitness for the onerous duties involved in a nurse's calling.

As one of the witnesses who has had a large and varied experience distinctly put it, "It takes a good all-round woman to make a good nurse," and, such being the case, it is well that those who are not "good all-round women" should be eliminated as soon as possible, and that time should not be wasted in attempts to train and fit them for a career for which they are unsuited.

It may, at first sight, seem hard on the individual; but it is really for her good, and for the good of the community, that a stop is put to a useless experiment.

In addition to the formal evidence taken, we have had opportunities of speaking to the matrons of suburban and other hospitals who have "gone through the mill," and who are practically unanimous that the course of work now laid down

in

in the large hospitals, where nurses are trained, is essential for a thorough and satisfactory training, and is neither too arduous nor too prolonged. On the question of the working hours, to be next considered, they are also in accord that these, as at present arranged, are not too long.

The hours during which nurses are on duty now average about ten and a half, and the evidence of the Medical Superintendents and Matrons of the hospitals above mentioned, as well as that of other witnesses, does not go to show that this is excessive, or is objected to by the nurses as a body. It is pointed out that "on duty" does not mean actually "at work"; and further, that the general health of the nursing staff of the hospitals is at a high standard. One or two witnesses have suggested that an eight-hours' day would be considered a boon by some nurses, and would, perhaps, be the ideal standard for all; but doubts were expressed as to the advisability of adopting this on general grounds, and it is clear that few hospitals would be able to stand the expense involved in such a large addition to the staff as would be required, and would have either to close some of their wards or their doors.

In addition to the evidence taken, we have had an opportunity of consulting some of the literature on this subject, and especially a report showing the hours of duty of nurses in hospitals in America, by Adelaide Nutting, Lady Superintendent of the Johns Hopkins Hospital, and find that the hours in this Colony are not longer than the average in other places. On the whole, then, it does not appear that the training is too arduous, or the hours of duty unnecessarily or hurtfully long, and the best evidence that the calling under present conditions is not an unpopular one, or the conditions of service not objected to, is that the applicants for the positions of probationers at the metropolitan hospitals are at this time several hundreds in number, and that the lists kept by the matrons of the hospitals are full to overflowing.

It has already been mentioned that no training can be considered complete and satisfactory unless it is carried out in a general hospital, containing not less than thirty or forty beds, and the system adopted in some of the country hospitals appears to us very unsatisfactory. In some cases the probationers, after one or two or more years' service, without the advantage of any special teaching, leave, without certificates it is true, but with commendatory letters and recommendations, as practical and trained nurses. In others, these probationers are retained in the service of the hospitals, and pass up from grade to grade until they become head nurses or matrons; so that, in a few instances, persons who have had no systematic training become the heads of the nursing staff, and are in a position which involves the training of others, whilst the regulations of the Government, which require a certificated trained nurse as the matron of every subsidised hospital, are evaded. It would be well if some arrangement could be come to by the managers of the smaller hospitals to take as probationers persons who are on the approved lists of candidates for the position of probationers at the metropolitan hospitals, so that the time during which they have to wait for engagement might be spent in the smaller hospitals as a preliminary to actual training; and also, if all the more responsible positions in the nursing staff of the smaller hospitals were filled by certificated nurses from the metropolitan hospitals.

These arrangements are now adopted by some of the suburban hospitals, and are certainly conducive to the welfare of the patients.

#### PRIVATE HOSPITALS.

In the course of our inquiries, the existence of a number of private hospitals in Sydney and its suburbs was brought under our notice; but we have had considerable difficulty in ascertaining the exact number of these, since they are not registered, and there is no recognised or complete list of them in the medical or other directories. There are, however, we believe, already about twenty of these establishments, and according to the evidence given, they are increasing in number somewhat rapidly. These hospitals have been started to supply a distinct public need. The fees charged range from 2 or 3 guineas a week upwards. There is a tendency to  
lower

lower these in some of them, and to provide accommodation to meet the wants of a class unable to afford the larger payments, and yet unwilling to enter the public hospitals. Some of them are the property of, or are conducted under the immediate management of well-known medical practitioners, and others are managed by qualified and skilled nurses. The majority have established and highly-creditable reputations, being well situated, well managed, and supplied with proper sanitary arrangements, and all necessary fittings and appliances. The sanitary arrangements of others are at least doubtful, and a number of the medical witnesses were agreed that some of these establishments were used for carrying out operations not only unnecessary but illegal. Nearly every medical witness examined on this point, whether the proprietor of a private hospital or not, has given evidence as to the advisability, and, indeed, the necessity, for some system of registration and inspection of these establishments, not only with a view of a guarantee to the public with regard to their sanitary condition and their suitability and sufficiency to meet the public needs, but with a view of preventing illegal operations and other abuses, and the scandals incidental thereto.

In the neighbouring colony of Victoria this question is dealt with under the Public Health Act. A private hospital is defined as "any house, building, or place other than an institution in receipt of aid from the State, in which persons are received and lodged, or in which it is intended that they should be received and lodged for medical or surgical treatment and care," and every such private hospital must be registered by the Board of Health after inspection, and be conducted subject to Regulations made by the Governor-in-Council.

The section of the Victorian Health Act of 1890 relating to private hospitals, together with the Regulations for the registration, inspection, drainage, good management, and sanitary regulations made thereunder, will be found in Appendix G to this Report, and might with advantage be adopted in this Colony.

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### RECOMMENDATIONS.

1. That all subsidised hospitals shall be periodically visited by an officer of the Government, who shall have power—(1) To audit the accounts at any time; (2) to ascertain if the funds are expended for proper purposes, with due regard to economy; (3) to see that the by-laws are carried out in their integrity; (4) to report generally on the management of the institution, with a view to bringing under the notice of the Government and the Committee any defects that may, in his opinion, exist in connection therewith.

2. That a thorough inquiry by a Government officer, and a favourable report as to the necessity for the establishment of any new hospital, should be conditions precedent to the granting of Government assistance either to build or maintain that hospital.

3. That model plans for country and district hospitals be prepared by the Government as guides to local committees in the construction of new hospitals.

4. That the Government subsidy of £ for £ be continued both in regard to funds collected for the building and equipment, and also for the maintenance of hospitals; but that special grants in cases where no like amount is raised by subscription or otherwise should not in future be given.

5. That, as hospitals can, except under very special circumstances, be suitably built and adequately equipped at a cost of £200 per bed, the Government subsidy towards the building fund should not exceed the amount of £100 per bed.

6. That the Government subsidy should only be granted where it is shown on the report of the inspecting officer that all regulations made by the Government are acted on, and that an efficient system of inquiry as to the pecuniary positions of both in- and out-patients is carried out.

7. That Government aid be withdrawn from the Silverton and Bulli hospitals, and the special attention of the Inspecting Government Officer drawn to the question of the advisability of the continuance of Government aid to all hospitals in which the average annual cost per bed is exceptionally high. 8.

8. That, in the absence of any local poor law administration, the Government should provide and maintain in connection with the Asylums for the Infirm and Destitute one or more hospitals on the model of the sick asylums under the Poor Law Board in Great Britain, and that when these are available the patients sent by the Government to the Sydney and Prince Alfred Hospitals should be only such cases as require special operative measures, or cases of emergency which would be prejudiced by delay in treatment.

9. That the administration of the Coast Hospital be removed from the control of the Medical Adviser to that of the Director of Government Asylums for the Infirm and Destitute, and that the institution be worked in connection with the Asylums for the Infirm and Destitute and the hospitals or sick asylums above recommended, and that it be utilised—(a) for cases of infectious disease until other provision for these cases is made; (b) for lock cases in men; and (c) for ordinary hospital cases which will not be prejudiced by the journey.

10. That the tramline be extended to the Coast Hospital from the Botany terminus, and the patients taken by special ambulance conveyances at fixed times.

11. That a Lock Hospital for Women, with not less than thirty beds, be established in Sydney, and conducted under the Department of Government Asylums for the Infirm and Destitute.

12. That the Government should cease to pay the rent of the buildings occupied as an Ophthalmic Hospital at "Moorcliff" in connection with the Sydney Hospital on the expiry of the present lease, and that the more chronic ophthalmic cases be treated in one of the hospitals or sick asylums under the Department of Government Asylums for the Infirm and Destitute; and those cases which are of a more acute character, or require operative treatment, in the Sydney and Prince Alfred Hospitals.

13. That the Regent-street Dispensary should be discontinued and the Government grant cease, and that Government assistance should be given in aid of a free dispensary, on the lines of such institutions in the mother country, from which patients in destitute circumstances could be treated either at the institution or at their own homes by a competent medical staff, and receive the necessary medicines, &c.

14. That all private hospitals be placed under Government supervision, provided for by Act of Parliament, in some such manner as exists in the neighbouring colony of Victoria; and that they only be allowed to continue their work under a license, granted after inspection by a competent authority.

In conclusion, we desire to place on record our high appreciation of the very valuable services rendered to this Commission by its Secretary, Mr. Walter Wilson, who has not only worked most ably and assiduously to further the general work of the Commission, but has dealt with a mass of details, statistics, and returns in a very complete and masterly manner.

We have the honor to be,

Your Excellency's most obedient servants,

GEO. A. WILSON, President.

J. BARLING.

JAMES POWELL.

F. NORTON MANNING, M.D.

CRITCHETT WALKER.

WALTER WILSON,  
Secretary.

15/9/99.

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## Appendix A.

## SYDNEY HOSPITAL.

The foundation-stone of the original structure of this hospital was laid in 1811. The hospital was soon afterwards opened and has been in active operation ever since. In the year 1848, up to which time it had been under Government control, it was placed under the management of the Directors of the Sydney Infirmary and Dispensary, which had been established in 1826, and for some years carried on its work in the building now occupied by the Mint. In 1876, the buildings in which the patients were housed, which were old and badly constructed, were found to be also septic, and after much consideration were, in 1879, demolished, with the exception of one detached block containing two wards, which was built in 1859, a date long subsequent to the main structure; and the Nightingale wing for nurses, which was added to the hospital in the year 1868. Temporary wooden buildings were provided so that the hospital might continue its operations until a new building could be erected. This new building was commenced in 1880, but from various causes, the chief of which were want of funds and some differences of opinion as to the size of the new hospital and the number of stories in the main pavilions fronting Macquarie-street, its completion was delayed until the year 1892, when the Government stepped in and found the necessary funds, it being decided that though the central administrative block might consist of three, the pavilions for patients should be limited to two storeys and a basement. Before the Government consented to find the means for completing the hospital great stress was laid on the necessity for satisfactory hospital accommodation for accidents and urgent cases occurring in the city, and it appears to have been understood, though not expressly stipulated, that the eye cases accommodated in rented buildings at Moorcliff, since the demolition of the old, should be removed to and provided for in the new, hospital.

In the year 1881, a special Act of Parliament setting forth the constitution and mode of government of the hospital was passed; and with new buildings and new constitution the hospital may be said to have entered on a new life in the year 1894.

The new hospital, which is on the pavilion system, contains 12 wards, which with the detached block of 2 wards, left when the main hospital was demolished, make a total of 14 wards, containing bed accommodation for 241 patients, 150 male and 91 female. These wards are allocated as follows:—1 ward for accidents, male; 2 wards for surgical cases, male; 1 ward for surgical cases, female; 1 stricture ward; 3 medical wards, male; 1 medical ward, female; 1 gynæcological ward; 2 small wards each with accommodation for 4 beds for children; 1 special room for males containing 2 beds, and 1 for females with 4 beds. There are in addition 2 beds in special rooms for cases of delirium, &c., and at the rear of the hospital 2 cottages containing 6 beds which are used for infectious diseases and other cases requiring isolation. The total number of beds thus provided at the main institution is 249. Twelve beds in the surgical ward for females are used for lock cases.

It will be seen that there are no wards set apart for eye cases, which are still accommodated at Moorcliff, with which it will be necessary to deal later on in this report. The reasons given for the continuance of this arrangement are, that the beds at the main hospital are all required for accidents and urgent cases, and other patients sent into the hospital by the Government.

The buildings appear to be on the whole well designed for hospital purposes, but to be unnecessarily massive in style, and, therefore, unnecessarily expensive. The president offers as a reason for this the fact that the ward blocks were originally designed for three stories, but this would not seem to account for the architectural peculiarities of the building, or such matters as the heavy stone verandah columns and other expensive details. Some of the wards, and especially those for children, struck us as somewhat dark and cheerless. The operating theatre is described by the president as "behind the times"; and there are defects in details, amongst others being the want of a hot-water service in the wards. The Nightingale wing, though it probably met the ideas of that time as to the housing of the nursing staff

of a hospital, is certainly not abreast of modern requirements. It was not well lighted as originally planned, and has been made darker and more gloomy by the addition of another storey rendered necessary by the increasing nursing staff of the hospital, and by other structural alterations. A large part of the sleeping accommodation for the nurses is in the objectionable form of associated dormitories; and when the additions are made, which are said by the president to be now required, it will be advisable to try to arrange for single or two-bedded rooms for the nurses, and to make the day and dining rooms larger and more cheerful. The president of the hospital and the directors are aware of the short-comings of this branch of the institution under their management, but are waiting for additional funds before taking action.

At the back of the main building is a wooden structure, not too well devised, but capable of holding six beds, which is set apart for the isolation of the occasional cases of infectious diseases which develop in the hospital.

The out-door and casualty departments are conducted in the basement, in rooms which are small for the purpose and not very well lighted.

There is a good, well kept kitchen, fitted with modern cooking appliances and all the adjuncts necessary for providing and serving meals for the patients and staff; and the store rooms, though small and somewhat dark, are in excellent order.

A special feature of the hospital is a spacious and well-arranged pathological department, containing the necessary rooms for *post-mortem* examinations and for pathological and bacteriological research. In this department the hospital is said to be in advance of any similar institution in the southern hemisphere; but it appears to be unnecessary that pathological or bacteriological inquiries, except for clinical purposes, should be undertaken at this hospital, to which no medical school is attached, and anything in the nature of bacteriological research would appear to be outside the functions of an institution of this character.

There is no proper laundry, though some of the smaller articles are washed in out-buildings in the rear of the hospital. The committee have the question of erecting a laundry under consideration, and there is evidence to show that there are advantages in having a laundry as part of a hospital, both as regards cost and in regard to the avoidance of danger by means of the introduction of infection from outside; but there are counter-balancing considerations in the fact that it adds considerably to the work of the administrative officers, and some special difficulties exist in this case owing to the small area of ground for the laundry buildings—which must necessarily be in somewhat close proximity to the nurses' quarters—and the restricted area for a drying yard.

The hospital appears to be well kept and clean, and to be not only a comfortable and cheerful home for the inmates, but to be furnished with almost all the appliances necessary for successful treatment. Even the two old wards, though not as spacious and bright as the new ones, are sufficient for their purpose.

The hospital is, by its special Act of Parliament, under the government of twenty-six directors, ten of whom are nominated by the Government, two are representatives of the honorary medical staff, and the remainder are elected by the donors and subscribers at, or in the case of a contest for the seats after, the annual general meeting. The officers chosen by the directors from amongst themselves are a president, two vice-presidents, and an honorary treasurer; and the internal management of the hospital is entrusted to a house committee which meets once a week.

The President, Sir Arthur Renwick, states that the directors appointed by the Government take a fair share in the management of the hospital, and considers that the Government is adequately and efficiently represented on the Board.

The honorary medical staff, apart from consulting officers who have retired from active duty after long service as honorary physicians and surgeons, consists of 4 physicians, 4 surgeons, 4 assistant physicians, 4 assistant surgeons, 2 ophthalmic surgeons, 2 assistant ophthalmic surgeons, 1 gynæcological surgeon, 1 assistant gynæcological surgeon, 1 aural surgeon, and 2 assistants, who undertake also the treatment of diseases of the nose and throat, 1 dermatologist, 1 dentist, 1 operating dentist, and 1 assistant operating dentist. One of the assistant physicians is also the director of the pathological department.

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The assistant physicians and assistant surgeons, and also the honorary assistant medical officers in the special departments, have, as their main duty, the treatment of out-patients; but arrangements are made under which they can take in and treat in the hospital beds a limited number of the patients who may in the out-patients' rooms appear to be in need of in-door care.

The special departments of the hospital appear to have been increased in number during the last few years. The president considers these really necessary to meet the special demands on the hospital and to cope successfully with special cases. It is no doubt advisable, except in the largest cities, that diseases of special organs should be treated in departments in connection with the General Hospitals rather than in Special Hospitals existing as separate institutions.

The resident medical staff consists of nine officers—a medical superintendent, paid £350 a year; a senior resident medical officer, paid £100; a resident pathologist, who receives £75; and six house physicians and surgeons, who receive each £50 annually. The whole of these officers receive board and lodging. The Medical Superintendent is said to be the head of the establishment under the directors, but the secretary appears to be an independent officer responsible to the directors only. The matron is responsible to the Superintendent.

The medical staff appears to be a somewhat large one, but it is stated in explanation that, as there are no medical students, the house physicians and surgeons are called on for minor duties which would be undertaken by clinical clerks and dressers in hospitals with medical schools attached.

The nursing staff, including that for Moorecliff, consists of a matron, sub-matron, five sisters, five head nurses, thirty-two nurses, and twenty-one probationers, a total of sixty-five, giving an average of five and a half beds to each nurse. This number of nurses is smaller than it would be but for the large proportion of ophthalmic cases which do not, proportionately, require much nursing.

In addition to the nurses, there are nine wardsmen and a number of ward-maids, whose duties are merely those of cleaners, and who assist the nurses in other matters.

The number of nurses would appear from the evidence to be adequate, and although the hours of duty are somewhat long, and the work of an onerous and not altogether pleasant character, there does not appear to be any evidence to support the view which we find is sometimes held that the nurses are overworked and are compelled to carry out duties of a menial character which might preferably be entrusted to scrubbers and others. It must be remembered that the probationers and nurses in their first three years' service are receiving training for a highly honorable and useful calling; that it is certainly advisable that they should be made acquainted with the necessity for the most absolute cleanliness in every detail by means of personal service, that they will be called on in the subsequent pursuit of their calling to carry out these details personally, and that this calling will involve the necessity for physical strength, so that no one unless in robust health should continue at nursing work.

The general staff of the hospital includes the secretary, who has under his direction two clerks and a collector. The collector receives a salary of £156 a year and a commission of  $2\frac{1}{2}$  per cent. upon old subscriptions and 5 per cent. upon new ones. He gives up the whole of his time and attention to the work of the hospital, principally collecting, though he does other work as well. There is the usual staff of cooks, kitchen servants, &c. There is also an "out-patients' clerk," who is responsible to the medical superintendent.

The number of beds available for patients, including those at Moorecliff and those in the isolation cottages and special rooms, is 318 (though more than this number of patients are occasionally accommodated) and the average number of beds occupied was 291 in 1897 and 292 in 1898. It is considered necessary to keep so far as is possible a number of beds unoccupied to meet urgent cases and to allow of the necessary cleaning and disinfecting of wards.

All the officers agree, however, that the number of beds available is, under present conditions, hardly adequate to meet the calls upon the hospital. The medical officers consider that some steps are necessary to increase the accommodation, but on inquiry

inquiry as to the manner in which this could best be done, they could only suggest two methods—one of which was the addition of another storey to the pavilions, and the other the occupation of a part of the Domain adjoining the hospital—both of which are open to manifest objections. The number of in-patients under treatment in 1897, was 4,090 and in 1898, 3,904, and the average stay in hospital of the patients was 24·3 days in the former year and 25 days in the latter.

During the year 1898, the number of accident and urgent cases, the reception of which is held to be the main sphere of the hospital's usefulness, was 1,033.

The number of patients admitted on Government orders was 1,609, the number on subscribers' orders 133, and the number of patients who contributed towards their maintenance was 842.

The inability of patients to contribute to their maintenance is made the subject of certificate by the persons recommending them, but these certificates though given by "magistrates, members of Parliament, and above all by clergymen, have been found to be not exactly in accordance with fact." Special inquiries are made by the medical and other officers as to the ability of patients to pay wholly or in part for their maintenance, in ordinary cases, before admission, and in accident and urgent cases, whose admission does not admit of delay, at a subsequent time; but it is only in occasional cases that the inquiries are made, except from the patients themselves, and there is no special officer to follow up the cases to their homes and fully investigate their circumstances.

The hospital has no private wards, and as a number of private hospitals and nursing homes are now available in Sydney, and these make provision for private cases, these wards are not considered necessary, but the hospital receives and expects payments in accordance with their means from patients treated in the general wards. The sum received from this source in 1898 was £1,633, and the following brief return shows the amounts received and the number of patients contributing during the last eight months of the year:—

Paying	2s. 6d.	5s.	7s. 6d.	10s.	15s.	17s. 6d.	21s.	25s.	28s.	30s.	42s.	50s.	100s.
	10	72	18	115	21	1	101	3	5	4	13	1	1

The above are all weekly payments. The returns were not correctly kept for the earlier months of the year, so that they cannot be given for the twelve months.

Accident and urgent cases in which delay would add to the sufferings or increase the illness of the patients have always been admitted on being presented at the hospital, but for other cases an order from a subscriber, who is entitled to a given number of recommendations in accordance with the amount of subscription or donation given, has been up to the present time required. This system has, however, been found liable to abuse, and though in many cases subscribers have made no use whatever of the recommendations to which they are, under the rules, entitled, in others the full number of orders has been given, sometimes to cases by no means suitable for admission, and this has involved an expense to the institution considerably in excess of the subscription given. After full consideration the committee has decided to adopt the system which has been in force at the Prince Alfred Hospital for some years, viz., not to grant to subscribers any right to orders or recommendations except in the case of out-patients. In adopting this rule the Board will, as far as possible, admit urgent cases which present themselves at the hospital without recommendation, being guided entirely by the severity of the illness and the suitability of the case for hospital treatment. The orders issued by the Government for the admission of indigent patients are always recognised and patients at once admitted.

A large increase in number has occurred in connection with the out-door department. The attendances in 1897 were 83,396, and in 1898 92,301. It is calculated that on an average each out-patient attends between four and five times—the total number of individuals treated in 1898 being 21,491.

The average annual cost per occupied bed in the hospital was, in 1897, £61 15s. 10d.; and in 1898, £61 9s. 11d. These calculations are said to be made after deducting a certain amount for the cost of the out-patients, and also all outlay for permanent structures, from the total expenditure of the hospital. The

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estimated cost of the out-patients' department in 1898 is £1,551, which is at the rate of about 1s. 6d. per individual treated. It does not appear that the cost falling on the general funds of the hospital for the treatment of out-patients is a large one. Each out-patient on registration is asked to pay the sum of 1s., and about £600 a year is raised from those who are able to contribute the amount. In addition to this income in the out-patients' department, £700 is received from the Government to cover the cost of the Regent-street Dispensary, which is managed in connection with the hospital.

This dispensary is a small inconvenient place which is not fitted for the purpose for which it is used. On the ground-floor is a waiting-room, small, and much overcrowded by patients at the time of our visit; a consulting-room, which is used by the honorary physician on two days, and by the honorary surgeon on two days, in each week; a dispensary, very small, badly fitted, and containing only a small supply of drugs; and a room occupied by the caretaker, who has also the whole of the upper floor as quarters. The whole appearance of the place is shabby and unwholesome, and has none of the signs of cleanliness and order which should characterise a branch of a large public institution. The honorary medical officers attend on two afternoons a week each, and usually spend from one to two hours in seeing and prescribing for patients. There is no resident medical officer to treat casualties, or to visit or treat urgent cases, and the place is a dispensary only in the sense that patients are seen and medicines dispensed there, and in no way carries out the functions which are connected with the name of dispensary in the mother country. The chief dispenser of the hospital attends for one or two hours four times a week, and dispenses for the patients.

There was no clerk or enquiry officer in attendance at the time of our visit. The patient is registered, and pays the 1s. fee if he has the means. The registration covers a period of two months, after which a further fee of 1s. is required.

The rent paid is £104 a year (including rates), and appears excessive considering the neighbourhood and the accommodation afforded. From the evidence it appears that the majority of the directors of the Sydney Hospital do not consider the place to be either necessary or useful, and that it is carried on by them only at the request of the Government, who, moved by the members for the district and some of the clergy, find funds which must be more than sufficient for the dispensary itself, and assist the general fund of the Sydney Hospital.

The following evidence by Sir Arthur Renwick with regard to this dispensary is interesting:—

452. There is a dispensary in Regent-street? Yes, we have that dispensary there, and we have also a piece of land bequeathed to us on the South Head Road, by the late Mr. Perry, for the purposes of another dispensary. There is a division of opinion in our Board in connection with the matter. Some members of the Board think it is undesirable that we should deal with anything outside Sydney Hospital and Moorecliff; that we should not take up dispensary work. They have, therefore, suggested to the Government that we should give up the dispensary in Regent-street, but the Government, after consideration of the matter, and especially on the representation of the gentlemen who represent in Parliament the districts concerned, have paid the rent and asked us to continue our services in connection with the Regent-street dispensary. We have not had sufficient funds to carry out the terms of Mr. Perry's bequest to build on the land. It is a matter for consideration whether we should continue or not. The continuance of the dispensary at Regent-street depends upon the will of the Government.

453. I understand that, whether it is carried on by the hospital authorities or not, some provision of the kind will have to be made? It is very questionable. I have gone to Regent-street on many occasions, and examined the books and seen the patients that go there, and I doubt whether it would not be far better if those patients came to the out-door department at the Sydney Hospital. Nine-tenths of them are cases which could come without any difficulty at all, and it is questionable whether the other tenth ought to get hospital treatment, whether they should not pay for treatment, and whether they should be treated at a public dispensary at all. A dispensary, with a person attached to go and visit the poor who are unable to pay for attendance, would be a valuable thing. Therefore, it was suggested some years ago, that the plan adopted in large cities in England would be more advantageous than this plan, viz., that the city should be divided into districts, each with a medical man attached; that the local dispensary should be paid a certain sum annually, and that the person to visit the sick should be the poor-doctor of the district. It would be a great saving to the country, and the poor would be much better attended than they are at present. As it is now, I do not know that any provision of a satisfactory nature is made for the attendance of poor sick people who are unable to go to the institution.

The Ophthalmic Department at Moorecliff, which is a part of, and is worked with, the Sydney Hospital, is housed in two old private dwellings with their out-buildings and appurtenances, and these stand, for city residences, on a somewhat large area of land, said to be between 2 and 3 acres. From a few of the rooms there

is a good view of the harbour. The site is quiet and retired, is very free from dust, and is open to the sea breeze. The admirable results which have been attained, and the success of operative treatment are due, probably, in the main, to the skill and care of the medical staff; but some credit is, perhaps, due to the site, which more than one of the medical officers considers an especially good one for the purpose. At first only one house was leased (in 1882), but both have now been occupied for about eleven years, and the leases, which were renewed in 1894, do not terminate till 1901. The rent, which is paid by the Government, appears decidedly in excess of what it should be, considering the neighbourhood, the character and extent of the accommodation, and the condition of the buildings in regard to repairs, which renders a comparatively large outlay necessary annually.

The houses have not undergone any special structural alterations to fit them for hospital purposes, and the patients are scattered in a number of small rooms, some of which are decidedly gloomy and unsuited for hospital work.

The number of beds is 69, of which 36 are apportioned to males and the remainder to females, but at our visit the number of inmates was 71, a very large proportion—26—being children, who (two or more being sometimes members of one family) were, in some instances, placed two in a bed. The institution is kept constantly full, and owing to the requests for admission there are generally more patients than there are beds for. Even with the recognised number of inmates the institution would be overcrowded, as the air space in a number of the rooms is not sufficient for hospital cases, and the ventilation, owing to structural conditions, imperfect. It should, however, be remembered that the majority of the patients only occupy the dormitories at night and are able to be up and a great deal in the open air by day. At the time of our visit only 11 were in bed, and this was said to be somewhat above the usual number.

The officers in charge appear to be doing their best to meet requirements, but the advisability of admitting more patients than there are beds for seems, at least, questionable.

The whole institution is well kept and is clean even as to details, but it is in many places in want of repair and requires kalsomine and paint throughout, and despite active efforts it is impossible to keep it free from vermin.

The day rooms for the patients, in which a great deal of their time is spent, are gloomy sheds; the kitchen and other domestic offices poor and ill found; the bedsteads of very ancient pattern; and the ward furniture and conveniences mainly remarkable for their sparseness and their insufficiency, or in some places their absence. Altogether the institution is a depressing place to the visitor and cannot be calculated to have a cheering effect on the inmates, and still it undoubtedly is doing excellent work, and has a reputation which is not confined to New South Wales, but attracts patients from other colonies and chiefly from Queensland. The directors in their report for the year 1896 stated, "The Moorcliff Hospital has during the past year been thoroughly repaired and renovated, and thus made more available for the cases of diseases of the eye admitted from all parts of Australia." But, considering that some of the patients who are attracted are indigent, others are able to pay sums which cover only a small part of the cost of their maintenance, and that the funds of the hospital are mainly furnished by the Government, the result is one which is by no means altogether a matter for gratification.

The number of patients treated in 1898 was 561, of whom 417 were admitted on Government orders and paid for at the rate of 3s. a day each. The figures for previous years do not differ materially from these. The cost per patient is not high as the nursing and general staffs are comparatively small, the dietary required by the patients is neither expensive nor very varied, and the amount of surgical dressings and other extras not nearly as great as is required for ordinary hospital cases.

As Moorcliff is worked as a part of the Sydney Hospital, and the accounts are not kept separate, it is impossible to arrive at the exact cost per bed. This, however, has been estimated at 13s. per week, and even if it is somewhat in excess of this, the payments for the Government patients should practically cover the whole expense of the institution, and besides leave a surplus towards the support of the main hospital in Macquarie-street. The hon. treasurer describes Moorcliff as "self-supporting," but it is only so inasmuch as it is no drag on the hospital funds.

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The Medical Superintendent of the Sydney hospital is in immediate charge of Moorcliff, under the directors, and he and the matron visit the place frequently, but the officer in immediate resident charge is the sub-matron, who has a staff, as a rule, of four, and occasionally of five, nurses, besides a cook, housemaid, and wardman. The nurses are supplied from the main hospital in rotation, each completing a service of three or four months at Moorcliff as part of their training.

Many of the patients being in fair health, and only suffering from partial disability with regard to vision, are very helpful in cleaning and other work, and so a large general staff is unnecessary.

The hon. medical officers are two surgeons and two assistant surgeons, and the latter have a few beds each by arrangement with their senior colleagues.

The patients are first seen at the main hospital, and treated as out or as in patients, according as their condition may require. Their average stay in hospital is seven weeks, a long one compared with that at the main hospital, but this is owing largely to the intractable nature of some forms of ophthalmic ailment. The operations numbered 408 in 1898, and included all the usual operations recognised in modern ophthalmic surgery. The number of cases of senile cataract operated on was 37, with the result that all recovered.

At the time of our visit we were struck, first by the large number of children, and secondly, by the large proportion of cases coming from Bourke and its immediate neighbourhood. We thought it advisable to have a return of the places from which the 71 patients in the hospital were admitted; and it is as follows:—

Locality.	Females.	Males.	Children.	Total.
Bourke ... ..	3	1	6	10
Mittagong ... ..	.....	.....	4	4
Quirindi ... ..	.....	.....	2	2
Tenterfield ... ..	.....	.....	1	1
Lake Cudgellieo ... ..	.....	.....	1	1
New Guinea ... ..	.....	.....	1	1
Dubbo ... ..	.....	1	1	2
Inverell ... ..	1	.....	.....	1
Queensland ... ..	1	3	.....	4
Adelong ... ..	.....	.....	1	1
Goulburn ... ..	1	.....	.....	1
Condobolin ... ..	.....	.....	1	1
Richmond River ... ..	.....	2	1	3
Warren ... ..	1	.....	.....	1
Tent Hill ... ..	1	.....	.....	1
Hay ... ..	1	1	.....	2
Harden ... ..	.....	.....	1	1
Liverpool, N.S.W. ... ..	.....	.....	1	1
Armidale ... ..	1	.....	.....	1
Girilambone ... ..	1	.....	.....	1
Murrumburrah ... ..	1	.....	.....	1
Sydney ... ..	3	8	1	12
New England ... ..	.....	1	.....	1
Fairfield ... ..	.....	1	.....	1
The sea ... ..	.....	1	.....	1
Clarence River ... ..	.....	2	.....	2
Merriwa ... ..	.....	1	.....	1
Gunnedah ... ..	.....	1	.....	1
West Australia ... ..	.....	1	.....	1
Singleton ... ..	.....	1	.....	1
Narrabri ... ..	.....	1	.....	1
Cobar ... ..	.....	2	.....	2
Peak Hill ... ..	.....	1	.....	1
Greta ... ..	.....	1	.....	1
Cootamundra ... ..	.....	1	.....	1
Richmond ... ..	.....	2	.....	2
Berry ... ..	.....	1	.....	1
Total ... ..	15	34	22	71

Average stay of each patient in hospital, seven weeks; No. of patients at present in hospital, 24 May, 1899, males, 42; females, 29; total, 71.

The income of the Sydney Hospital for the past three years has been as follows :—

	1896.	1897.	1898.
	£	£	£
From Government ... ..	15,469	15,262	11,777
Subscriptions and donations ... ..	3,848	3,518	2,485
Bequests ... ..	1,100	2,171	3,702
From patients ... ..	2,410	2,332	2,296
Interest on invested funds ... ..	1,017	1,254	1,053
Other receipts ... ..	185	152	309
	£24,029	24,689	21,622

The proportion of the receipts from the Government to the total income in each of those years was 64·4 per cent., 61·8 per cent., and 54·5 per cent., respectively, or an average of 60·4 per cent. over the whole period. In these calculations the bequests are taken into account as revenue, but as the bequests are invested, the proportion of the Government contribution to the income actually available is larger than the amounts named.

The subscriptions and donations show a falling off during the last few years, and on the whole they do not furnish so large a sum as might be expected from the community generally. The hon. treasurer states in his evidence that the falling-off was due to the collections by the Hospital Saturday Fund, and to the fact that the circumstances of the people during the last few years had not been so good as previously. Special efforts appear to have been made by appeals to old colonists in England, and to large pastoralists, but the results were not encouraging.

With regard to the Hospital Saturday Fund, the hon. treasurer states :—  
 “ Until last year we used to get our share of the whole fund, but when they (the trustees of the fund) made the last division, they kept back what they called the money received from the industrial people—people in shops, warehouses, houses, or factories, who contributed 6d. or 1s. a week. They kept back about £1,100, and they made it a ground of complaint against us that we did not afford them the same facilities as our ordinary subscribers. There is a by-law to the effect that subscribers of 2 or 3 guineas have a right to one or two orders. This was denied to the Hospital Saturday Fund, so they cried out about it, and said they were compelled by those who gave them the money to get some consideration for it, and they have kept that money back.” The whole amount received in the shape of subscriptions and donations, including the proportion of the Hospital Saturday Fund, is now £300 or £400 short of what used to be received a few years ago from subscribers alone.

What is known as the Benefactors' Permanent Trust Fund stood on paper, on the 25th May, 1899, at £59,101, but of this amount £24,218 had been expended on the permanent structure. The balance in hand—£34,883—was invested in the Bank of New South Wales, on fixed deposit, at 3 per cent., and is an accumulation of legacies and donations of £100 and upwards. Applying to £28,554 of this amount is the condition that it shall be invested so that the interest thereon only shall be available for expenditure by the hospital.

By the by-laws all sums of £100 and upwards received are carried to this Permanent Trust Fund. At the same time increased subsidies from the Government or increased subscriptions from the public are required to take the place of the sum so locked up. The hon. treasurer approved of this action on the ground that he would “ like to see that fund built up until we are able to do without Government assistance altogether,” which means, in other words, the imposition of an increased burden on the people of to-day, for the benefit of posterity.

## PRINCE ALFRED HOSPITAL.

This hospital was the outcome of a movement initiated in 1868 to give expression to the gratitude of the public of the Colony at the recovery of His Royal Highness the Duke of Edinburgh from the attack made upon his life in Sydney, it being decided that the establishment of such an institution was best calculated to represent the feelings of the community on that occasion. By a special Act of Parliament it is affiliated to the University of Sydney. The ground upon which it stands is about 12 acres in extent, and has been well planted and laid out in gardens. The site was a part of the University reserve first set apart for one of the colleges, but it has since been vested in the trustees of the hospital.

The hospital is planned on the pavilion system, and was originally intended to provide accommodation for 450 patients. The administrative buildings which were at once erected are sufficient for that number, but owing to want of funds it was decided to erect at first, in addition to the administrative building, only two large pavilions, and a block to contain wards for women and children, two admission or emergency wards, an operating-room, a clinical theatre, and certain rooms to be occupied by patients immediately after operations. These buildings together give accommodation for 236 patients. The building cost per bed has been calculated at £754, but it must be remembered that this includes the cost of the administrative buildings which are adequate for nearly double the present number of patients. The cost will, therefore, be proportionately considerably reduced when the hospital is completed to the size originally intended.

Of the present accommodation, 141 beds are set apart for men and 95 for women. There are wards for male surgical cases, female surgical cases, and also for male and female medical cases. One ward and part of another are set apart for gynæcological cases; one ward for male ophthalmic cases, and half a ward for female ophthalmic cases. There is one children's ward, and, in addition, two emergency wards, for cases on admission, and four small wards or rooms for operation cases. There are also six cottages each capable of holding two beds for infectious cases which arise in the hospital or for other cases which need isolation.

The hospital is stated to have been quite full, and indeed over-full repeatedly, during the last year, and had actually more patients in the wards than there were beds for, couch accommodation having been provided. This is described by the honorary secretary as a very undesirable state of affairs.

The hospital as originally planned was found to be defective in the accommodation for nurses, and to meet the requirements of this part of the staff, in accordance with modern ideas, a special building was erected in the year 1892, collections having been made for this special purpose, which were supplemented by the Government to the extent of £5,000. There was, at the end of 1898, still a debt of £1,737 on this building, which cost £13,270, or, including furniture, £15,161. This nurses' home, built on the most modern principles, contains comfortable and spacious dining and sitting rooms, and the nurses are accommodated either in separate bedrooms, or in rooms for two only.

The administrative building of the hospital includes the usual offices and quarters for the resident medical staff. There are well designed and fitted kitchens, stores, and other adjuncts; and situated near the out-patients rooms there is a large dispensary and drug store.

The number of consulting-rooms for the honorary medical staff attached to the out-patients department is now too small, owing to the recent addition of several special departments, and, besides this, the rooms themselves are not sufficiently spacious for the purpose, especially as the students attend in these rooms to receive instruction from the physicians and surgeons.

The operating-room has recently been refitted and rearranged under the personal superintendence of the late Sir Alfred Roberts, after whom it is named. It is so far up to date that it will bear favourable comparison with even the most recently-arranged rooms for similar purposes in the mother country. The number of operations has, however, so much increased during recent years that it has been found necessary to set apart a second room for this purpose, and the clinical lecture-room, at the time of our visit, was being altered as an operating theatre for special cases.

There is a well-arranged laundry in one corner of the hospital grounds, and the matron is of opinion that the laundry work is carried out more satisfactorily and at less cost to the hospital than if sent to a public laundry.

The mortuary is well arranged, but the pathological rooms in connection with it are insufficient in size, and there will clearly be a necessity for a clinical lecture-room when the present one has been taken over for an operating theatre.

The hospital, as a whole, shows evidence of most thoughtful care in every part of its construction and arrangement, and there is we understand at the present time nothing in any part of the world which is more satisfactory for the purpose for which it was designed. It is suitably furnished, admirably kept in all details, and standing as it does in a large open space, with a view of its surrounding gardens and the University grounds, it is an exceedingly cheerful home.

Under its special Act of Parliament it is governed by fifteen directors, three of whom are nominated by the Government, two are representatives of the Sydney University, and ten are elected by the subscribers and donors. Of the elected subscribers, five retire annually, but are eligible for re-election. The election usually takes place at the annual general meeting. The *ex-officio* directors are the Chancellor of the University and the Dean of the Faculty of Medicine. The number of the Government nominees is small in relation to the total number of directors, but the evidence of the honorary secretary goes to show that they have exercised a fair amount of influence on the Board, though this influence is a question rather of their personality than their number. Professor Wilson was also of opinion that the life nomination of Government representatives tended rather to lessen their control; that Government representatives did not always continue alive to their work, though he considered that the directors at present representing the Government were very much alive to their duties, and that they did their work exceedingly well.

The honorary medical officers, omitting the consulting staff, consists of three physicians, three surgeons, two gynæcological surgeons, one ophthalmic surgeon, one physician for diseases of the skin, and one surgeon for diseases of the throat, nose, and ear. There are also two assistant physicians, two assistant surgeons, an assistant ophthalmic surgeon, and a pathologist. A medical tutor is also on the staff of the hospital, with a view of assisting students in their clinical work.

The resident medical officers are—a medical superintendent, who receives a salary of £300 a year; a pathologist, and an anæsthetist and registrar, who receive £100 a year each; and six house physicians and surgeons, who each receive £50 a year. Board and lodging are included in all cases.

The resident staff is somewhat larger than that at the Sydney Hospital; and though it would appear that assistance in dressing the patients and in performing the duties of clinical clerks is given by the students, the medical superintendent considers that the resident staff is not larger than is required, and states that some part of the duties of those officers consists in overlooking and teaching the students.

The assistant physicians and assistant surgeons, and the assistant medical officers in the special departments, are charged with the duty of treating the out-patients; but, as at the Sydney Hospital, a small number of beds are apportioned to them so that they may treat patients who have been already under their care in the out-patients' department.



The special departments of the hospital have, as at the Sydney Hospital, been increased during the last two or three years, and the evidence of Professor Wilson on this head is as follows:—"It is an advantage to have a general hospital equipped with special departments, and so long as the necessity for special treatment is not very large in the community, patients can be provided for amply by special departments in a large general hospital. There is another advantage in having various departments in connection with a hospital—people come there who do not know what is the matter with them, and when they are examined they can be told off to their respective departments. It is a matter of convenience that they should be received at the centre of administration, and then drafted off to the special departments."

It has also to be taken into consideration that special departments are of advantage in connection with the training of students in any hospital to which a medical school is attached.

The nursing staff numbers sixty-seven individuals, divided into matron, sisters, nurses of various grades, and probationers, and is in the proportion of one nurse for every four beds, this somewhat high percentage, in comparison with the Sydney Hospital, being rendered necessary by the large proportion of operative work done at the hospital, and the absence of any large number of ophthalmic cases. The work demanded of probationers and nurses appears to be much the same as at the Sydney Hospital, and the hours of duty are similar, being from ten to ten and-a-half hours a day; the amount of annual leave appears, however, to be more liberal. The medical superintendent and matron were in agreement in stating that the number of applicants for training as nurses was very large; that even the selected candidates had to wait for two years or more before they could be taken; that when once the early probationary stage was passed the number breaking down or giving up the work was few; and the general health good; and, further, that the staff generally were satisfied with their treatment.

The salaries paid are as follows:—Matron, £250 per annum; 1 sister at £70, 4 at £60, 1 probationary sister at £50, 4 nurses at £44, 3 at £40, 1 at £36, 12 at £32, 17 at £24, and 23 probationers at £16 each.

The matron is subordinate to the medical superintendent and not directly responsible to the committee; and though the nurses are selected by her, and examined as to their physical fitness by the medical superintendent, the power of engagement and dismissal rests with the Board.

In addition to the nurses, there is a wardsman and a staff of cleaners and scrubbers, the latter being engaged three days during each week, thus relieving the nurses of the rougher labour of the hospital.

The general staff consists of a paid secretary, two clerks, a collector, a messenger, porters, and others.

The number of beds for patients is 236, and the average daily number of beds occupied in 1898 was 227, or in the proportion of 96 per cent. of the total accommodation, so that there were scarcely any spare beds for emergency cases and serious accidents, and the hospital was at times over-full. The best way of increasing the accommodation of the hospital had evidently been the subject of consideration both by the chairman and the honorary secretary, and it was pointed out that this could be most readily done by building the two pavilions which have been already planned, to form the façade of the hospital facing Missenden-road. The chairman, who was for many years the honorary treasurer of the hospital, and who has been an active member of the Board of Directors ever since its inception, calculated the cost of these pavilions at £40,000, this estimate being based upon the cost of those already erected, with such decrease as would arise from the present lowered building prices. The site, as pointed out, certainly seems suitable, and it would involve but little expense for basement or extraneous structures. It was shown, however, that if these pavilions were erected, some additional administrative accommodation would be necessary, but this could probably, for the most part, be provided in the pavilions themselves, and in the positions now taken up by the private wards in the existing pavilions.

The

The number of in-patients treated in 1898 was 3,706, and out-patients and casualty cases about 12,500. The number of patients treated on Government orders was 1,359. 931 patients contributed sums of varying amounts towards their support in the hospital.

The five private wards in the hospital were established on the receipt of two donations of £1,000 each, given in the years 1873 and 1876 respectively—one by Mrs. Ogilvie “for the erection of three rooms, to be called ‘The Ogilvie Wards,’ for the accommodation of naval officers and gentlemen, who, being strangers in Sydney, or otherwise unable to procure the treatment and nursing required by severe illness, might desire to obtain them by payment at the hospital;” and the other by Mr. John Fairfax, “for the erection of two wards, to accommodate ladies or gentlemen who might otherwise be unable to obtain the treatment and nursing required by serious illness, and desired to have these advantages at the hospital by moderate payment.”

The income of the hospital during the last three years, and the sources from which it has been derived, have been as follows:—

	1896.	1897.	1898.
	£	£	£
From Government ... ..	10,471	9,829	10,825
Subscriptions and donations...	2,262	2,732	2,403
Bequests ... ..	445	994	3,501
From patients ... ..	2,289	2,401	2,414
Interest on funds ... ..	1,394	1,169	631
Other receipts ... ..	224	238	371
	<hr/>	<hr/>	<hr/>
	£17,085	£17,363	£20,145

It will be seen that the amount of Government assistance was with regard to the total income 61·3 per cent. in 1896, 56·6 in 1897, and 53·7 in 1898. In making these calculations, the bequests are regarded as income, but as bequests are invested, the Government contributions in some years, for instance in 1898, bear a much higher ratio than that named to the income actually available for expenditure.

The subscriptions to the hospital have rather increased during the last two or three years, and the evidence of the chairman, Sir Edward Knox, with regard to the Saturday Hospital Fund was as follows:—

809. Then you do not think that the Hospital Saturday Fund has had any effect in decreasing the subscriptions? Not materially. It may have decreased them in certain ways by £200 or £300 in a year, and that, of course, would represent a loss of £600, because we get an equal sum from the Government; but upon the whole we have been considerable gainers by the Hospital Saturday Fund.

846. I understood you to say that you did not consider that the subscriptions to the Hospital Saturday Fund have the effect of diminishing your income? No; it has had the effect of increasing our funds. It may possibly have diminished our subscriptions from individuals to a small extent, and, of course, that is a considerable loss to us, because we should be entitled to the same amount from the Government. If we get £600 from the Hospital Saturday Fund, the Government give us only £100, and then allow us interest on the balance.

847. Then you think on the whole you do not lose by the Saturday Hospital Fund—Mr. Ewan gave very decided evidence to the effect that if the Hospital Saturday Fund had not been in existence the Sydney Hospital would have received more money from the public than it receives from that fund? I can quite understand that with regard to Sydney Hospital, because they have always had a very much larger subscribers' list than we have had, and their subscriptions were of a kind that might fall off.

848. So it would not have the same effect with regard to the Prince Alfred Hospital that it would have with regard to the Sydney Hospital? No.

From its inception the hospital has never given to its subscribers orders or letters of recommendation in return for subscriptions, but has reserved the right of admitting patients according to their fitness medically for hospital treatment, being guided chiefly by the urgency of the case from a medical or surgical point of view.

This was a departure from the system previously followed in the hospitals of the Colony, but it has been found to work well, and it has been already adopted by some of the country hospitals. The Sydney Hospital is now about to alter its rules in this direction.

The

The chairman of the Prince Alfred Hospital pointed out some of the disadvantages to the hospital of the order or recommendation system, which he considered "a wrong course altogether," and did not think that the system adopted at the Prince Alfred had any material effect in lessening the number of subscribers.

The number of patients admitted during the last three years have been as follows :—

	1896.	1897.	1898.
Accident and urgent cases admitted free ...	1,060	963	1,176
Paying for or towards maintenance... ..	926	976	931
Under bed-donors' regulations ... ..	2	9	5
Under Government orders ... ..	1,208	1,306	1,359
	3,196	3,254	3,471

The 931 patients in 1898 agreed to pay on admission sums as under :—

140	...	...	...	...	5s. per week.
50	...	...	...	...	from 5s. to 10s. a week.
290	...	...	...	...	10s. per week.
133	...	...	...	...	15s. "
125	...	...	...	...	20s. "
91	...	...	...	...	21s. "
11	...	...	...	...	25s. "
31	...	...	...	...	30s. "
1	...	...	...	...	35s. "
3	...	...	...	...	40s. "
19	...	...	...	...	42s. "
1	...	...	...	...	63s. "
1	...	...	...	...	80s. "
23	...	...	...	...	84s. "
12	...	...	...	...	other sums.

The out-patients have greatly increased in number. In 1887 the attendances were 25,830, and in 1898, 49,972, so that in ten years the increase has been 93·5 per cent. The number of attendances for 1898 probably represents 12,000 individuals, reckoning each patient to come from four to five times.

The hospital directors have not yet seen their way to impose either a registration fee on each patient at the first visit or to exact payment in any other way from those able to contribute. A donation-box is placed in the out-patients' waiting-room, and in 1887 upwards of £300 was obtained in gifts in this way; but the amount now received, although the number of out-patients has doubled, is only £100 a year.

The cost of the out-patients' department is said to be approximately £1,250 a year, calculating all the outgoings properly chargeable to this service; but the honorary secretary points out that it would be "a refinement of hospital administration to keep separate accounts for out-patients."

The number of surgical operations is a very striking and important feature of the hospital, and involves considerable expense and some embarrassment in regard to management. The cost of modern surgical dressings is very large. The operation cases require much nursing and care, and the operating theatre has proved insufficient for the increased number of cases, so that the clinical lecture-room has been taken for an additional operating theatre, and the lectures are now delivered in rooms which are required for other purposes. The increase in the number of the operations is shown by the fact that in 1885, the first year in which the statistics included the whole year from 1st January to 31st December, the operations numbered 405, and since that time every year has shown a steady increase, till in 1898 the number was 1,798. In 1885 the proportion of operations to the number of admissions was about 25 per cent.; in 1898 it was upwards of 50 per cent. The hospital has, in fact, become a centre for surgical operations, to which patients come from all parts of the Colony. More than half of the total number of patients are now admitted to undergo some operative procedure, and the medical work of the hospital appears to be to some extent thrust into the background.

Patients

Patients in the private wards were formerly charged a sum of 7 guineas a week, 5 guineas which went to the hospital for maintenance and 2 guineas to the honorary medical officer, who, however, in all cases handed over his fees to the hospital as donations; but the hospital authorities, having regard to the number of private hospitals now open to patients, have seen fit during the last year to restrict the use of the private wards to naval officers (for whom some of them were originally designed), to students at the hospital, or to other special cases considered by the directors to have claims on their consideration.

The laundry is well arranged and equipped, and eight laundresses are constantly employed; the total cost to the hospital for salaries, stores, &c., being estimated at about £600 a year. The matron considers this cheaper than putting the washing out, and in every way more satisfactory, though admitting that the laundry as an additional sub-department involves considerable care and oversight.

The hospital has now an endowment fund, shown in the report for 1898 to be £35,478, but apparently since increased, as the chairman of the Board stated it to be £38,000. This has been built up from legacies and donations, which, to the extent of £29,712 as far as can be ascertained, have been specially ear-marked by the legators or donors, so that the interest only can be expended. The balance has been set apart by the directors under the by-laws. One of these bequests, that of Mrs. Mary Roberts, amounts to £23,478. Sir Edward Knox considered it wise to have such a fund as "something to fall back on—something that brings in interest," and suggested the possibility "that it might be desirable to spend some of the money in enlarging the hospital some day."

The endowment fund is invested to the extent of £25,000 in 3 per cent. Government stock, leaving £6,000 on mortgage and £6,000 awaiting investment.

The hospital has a Samaritan fund, the result of appropriating unclaimed moneys of patients and a few subscriptions, but it has not yet reached £50, or been in any way operated on.

#### ST. VINCENT'S HOSPITAL.

This is essentially a private institution, under the care of the Sisters of Charity, but it takes rank immediately after the large public hospitals (the Sydney and Prince Alfred), owing to its large size and the number of patients for whom it makes provision.

It is under the immediate direction of the Mother Rectress of the Order, and the Government assistance has been confined to a grant of land (one-quarter of an acre) for a site, in 1855, and two special grants of £1,000 since that time. There are three hon. officers—hon. treasurer, hon. secretary, and an hon. auditor.

The hospital was first started (with eight beds) in Macleay-street, in 1857, and was subsequently moved to its present site, when new buildings were erected. From time to time additional areas of land have been purchased, and additional buildings erected, and at present the area belonging to the hospital as freehold is about 3 acres, and the accommodation is for 175 patients.

The building stands in a good situation, and consists of an H-shaped block, of which the front and one of the wings have extensive street frontages, the wards in the latter having an uninterrupted and varied view from the attached verandahs. The whole outward aspect of the place is homely, and inside it is bright, cheerful, well ventilated, and well kept. The general impression gained from its inspection is that economy has been practised in the construction wherever this was practicable, without interfering with the welfare of the patients, and is carried into details of management without intrenching on their comfort. With the exception of the operating-room, which is not up to date either in its construction or in its appliances, and the kitchen and its appurtenances, which are neither large enough nor sufficiently well arranged for the large amount of work to be carried on therein, the hospital buildings leave little to be desired.

The patients are accommodated in seven main wards—one for surgical cases (male), and one for surgical cases (female); one for medical cases (male), and one for medical cases (female); an ophthalmic ward for each sex, and a ward for men belonging

belonging to the British, French, and German navies. There are, in addition, twenty private wards, each for a single patient, four emergency rooms (three with two beds each, and one with one bed), and three small rooms for contagious cases in a detached building. In connection with the hospital, but as an addition thereto and not connected with the hospital proper, there is an hospice for the dying, which consists of an old cottage and its outbuildings, purchased recently with the ground on which it stands. This now gives accommodation to fourteen patients, all incurable or dying cases.

In 1898, 1,665 in-patients were treated, and there were 7,644 out-patients (including casualties), whose attendances numbered 22,757. The large majority of the patients are general hospital cases, but there are special departments for the eye and ear, each under its own medical officer. Infectious cases are not, as a rule, received.

The reports show that the out-patients are increasing in number, and the Mother Rectress states that more accommodation in the hospital is required, as there are more applicants for admission than room can be found for, whilst at the hospice not half of those applying can be taken in.

The sums received from patients who are admitted to the general wards range from 5s. a week to a guinea. The average fee from patients who pay is 14s. a week, and a number pay 2 guineas a week when they enter, which serves for three weeks' care and treatment. A number of patients are, however, received without any payment.

An arrangement is made with the authorities of the British, French, and German navies under which 3s. a day is paid for each patient received. The accommodation for this class is in a separate ward, and the provision is liberal and satisfactory in its arrangements.

In the private wards the charge is 3 guineas for a small room, and 4 guineas a week for a large one, with attached bathroom and other conveniences. This is exclusive of fees, usually 1 guinea a week to the hon. medical officers.

A fee of 1s. for registration is charged to each out-patient, and "offerings" are also received from such of these as like to make them.

The medical staff of the hospital consists of the following honorary medical officers:—Three physicians, three surgeons, one ophthalmic surgeon, one aural surgeon, one assistant physician, one assistant surgeon, one pathologist, one anaesthetist, and one dentist, and there are two resident medical officers, who receive salaries of £100 a year each with board and residence.

The nursing staff consists of twenty-one sisters, eighteen probationers, and three male nurses, a total, with the Mother Rectress, of forty-three, giving a proportion of four beds to each person.

The house staff is made up of hospital, nursing, and domestic lay sisters, together with some paid servants, laundress, &c.

The probationers pay a sum of 10 guineas for their first year's training, and receive £5 in the second and £12 in the third year of their probationary service; their uniforms are also found for them. This arrangement differs considerably from that at the other large hospitals, and there does not appear to be any special advantage accruing from it, except exemption from some of the cleaning work which is exacted at the other hospitals. The applicants for employment under it are, however, very numerous, and persons of all religious denominations are taken.

The hours on duty, both for probationers and sisters, average about ten daily, and the amount of leave appears to be somewhat less than at the Sydney and Prince Alfred Hospitals. The period of training is three years, and includes lectures by the staff, and tests by examination, and in practical work at fixed periods.

The sources of income are public subscriptions, donations, and patients' fees, and the latter makes up considerably more than the half of the total receipts. It is indeed from the profit made in the private wards and from other paying patients that the hospital is, in the main, able to carry out its charitable work and receive for treatment those who are in necessitous circumstances and in need of hospital care.

The

The cost per bed is calculated as £26 4s. 1d. during the year 1898, and it is to the fact mainly that the sisters take no salary, and, as the Mother Rectress states, at the same time "economise more than paid nurses do," that the very economical management is due. The above cost is obtained by dividing the expenditure by the total number of beds (and not by the average daily number occupied). Books are not kept showing the daily average, and it would involve considerable trouble to arrive at it. It is said, however, that the hospital accommodation was fully occupied during 1898.

The hospital possesses no endowment fund, and all donations and legacies appear to have been expended in the purchase of land or in adding to the buildings or appliances of the hospital. £5,532 has been expended in enlarging the area, and there is at present a debit of £3,503 on the building account.

#### CHILDREN'S HOSPITAL, GLEBE.

This institution was started about nineteen years ago as an hospital for sick children for the whole of Sydney, and not to serve the needs of the immediate neighbourhood only; but the location appears to have been originally determined, partly by the fact that some of the original promoters of the hospital lived in the district, and partly because no more suitable premises could be obtained elsewhere.

The main building now occupied by the hospital consisted at first of two or three private houses, was subsequently a school, and has only undergone some minor alterations to fit it for an hospital. Though it has for years served a very useful purpose, and good medical and surgical work has been carried out in it, the building is very far from meeting ordinary hospital requirements. The lavatories and closets are badly placed and cramped in size, some of the rooms are not too well ventilated, and the arrangements are obviously in some particulars of a make-shift character. It is described, both by the senior surgeon and by the hon. treasurer as unsuited for an hospital, and most unsatisfactory in its arrangements. Moreover, it is said to be now too small for the work which it is called on to perform, and it cannot house properly the officers and staff engaged in its service. The out-patients' department is a wooden building, recently erected in the grounds.

The whole area of land is about 1 acre, and is now the freehold property of the institution.

Diphtheria patients were at first treated in a small building at the back of the hospital; but the calls on this accommodation having much increased, and facilities for the early treatment of diphtheria, either by the Government or by other hospitals, being practically non-existent, the hospital authorities, after a consultation with the Chief Secretary, decided on making other arrangements, and about six years ago a large cottage standing in an isolated position on a block of land, in area about 4 acres, was purchased, and has since been used entirely for the treatment of cases of diphtheria, and managed as a branch of the Children's Hospital. Towards the expense incurred the Government granted a sum of £250, and has paid £250 a year towards the rent of the Diphtheria Cottage ever since.

The cost of the main hospital, together with the land, additions, and alterations, has been £7,565, of which £3,315 was raised by subscriptions, donations, &c., and £4,250 was granted by the Government. The cost per bed has been about £145. The cost of the Diphtheria Cottage, grounds, and additions, was £5,078. The number of beds in the cottage is twelve.

The hospital is governed by a large committee, consisting of a President, two vice-presidents, an hon. treasurer, an hon. secretary, five life members, twenty-four elected members, and the four senior members of the hon. medical staff, and of these the office-bearers and ten members of the committee are elected annually. Of the entire governing body, twenty-two are ladies, and this arrangement is said to work on the whole well. The house committee is composed entirely of ladies with the officers

officers as *ex-officio* members; and though the ladies take a keen interest in their work, there are complaints as to their want of business capacity and their conservative position with regard to innovations and improvements. The whole committee appears to be unwieldy and calculated to destroy the proper sense of personal responsibility. It might with advantage be reconstituted on a basis more limited as to size, and with a proportion of its members nominated by the Government.

The hon. medical staff consist of two physicians, two surgeons, one ophthalmic surgeon, and one pathologist, with two medical officers in charge of the out-patients' department. The pathologist now takes entire medical charge of the Diphtheria Cottage, and this cottage is thus completely separated from the main institution, even in regard to its medical officers; so that only on emergency are the services of the house surgeon called for.

Until lately the hospital had two resident officers, one a woman; but under a rearrangement the residents were relieved of the charge of the out-patients' department, to which two hon. medical officers were appointed, and of any except emergency work at the Diphtheria Cottage, and it was found that one resident officer was all that was necessary. This officer is paid a salary of £200 a year, with board; but he has to find lodging near the institution. This arrangement is not satisfactory, and is only allowed owing to the want of accommodation within the hospital itself.

The nursing staff for both the main hospital and the branch consists of a matron at £90, three sisters at £60 each, two staff nurses at £35 each, five nurses at £25 each, and fourteen probationers at £20 each, giving a total of twenty-five, and being at the rate of one nurse for between two and three beds. This is undoubtedly a high rate, but is explained partly by the fact that many of the children are very young and require much service, but mainly by the Diphtheria Cottage being practically a separate institution and requiring a complete and separate staff, who, owing to the trying nature of the service, and the conditions of atmosphere, &c., are not on duty for more than eight hours at a time. The staff at the Diphtheria Cottage consists of one sister and seven nurses or probationers, included in the figures above given, and is in the proportion of one nurse to every one and a half beds, which beds are, however, not always fully occupied.

The hours of duty for the nursing staff, other than that at the Diphtheria Cottage, the work they have to do, and the leave of absence granted, do not differ materially from those at the larger hospitals.

There is the usual staff of servants, including cook, laundress, porter, &c., which appears not more than sufficient for the work of the institution.

The quarters for the nurses are not all that could be desired, either as to situation, space, or privacy; but they are comfortably furnished, and are not objected to by the occupants.

The accommodation for patients in the main hospital consists of four wards, two for boys and two for girls. The medical and surgical cases are not kept distinct, and some of the younger boys are placed in the girls' wards, the arrangements being such as to make as much use of the accommodation as possible without insisting on too rigid a classification. The number of beds, including those in the isolated building, is sixty-four, and the average number daily resident for 1898 was fifty.

The total number of patients in 1898 under treatment was 601—445 general and 156 diphtheria cases. The evidence goes to show that there are, at times, more calls on the hospital than it can meet with its present accommodation, and that this is especially the case in the summer weather when cases of gastro-enteritis are very numerous.

No cases except those of infectious disease are excluded from admission, and for cases of infectious disease, or other cases requiring isolation and breaking out in the hospital, two beds in an isolated building are provided.

The Diphtheria Cottage contains twelve beds, and the average daily number of patients for 1898 was six. During the year, 156 patients were under treatment, the number being a trifle less than during the previous year. Altogether, 884 children have been admitted to the hospital since it was opened in 1893.

From the evidence of Dr. Clubbe, it appears that the rate of mortality during 1897 was 18·78 per cent.; and during 1898, 17·2 per cent. The mortality has diminished very decidedly since the introduction of the anti-toxin treatment, the mortality before its use being as high as 57·3. As the use of the anti-toxin, its dosage, and the necessary precautions in its administration are becoming more understood, it is anticipated that the mortality will be still less, and the gratifying fact is noted that there has been no death in the first four months of 1899.

The cost per occupied bed, including the Diphtheria Cottage, is about £66 15s., and this comparatively high rate is attributed to the large separate staff considered absolutely necessary to work a detached infectious disease branch with which no communication or interchange of nurses with the main hospital can be permitted. The Honorary Treasurer points out that it is not possible to keep the accounts of the cottage altogether distinct; but this is done to some extent, and, on an estimate founded on this, the cost of each bed in the cottage is nearly double that in the main building, the former being estimated at £80 and the latter at £40.

The number of out-patients in 1898 was 4,082, and the number of attendances, 10,885; and it is pointed out that this is an increase of 1,220 patients and 2,716 attendances on the figures for the previous year. This increase has been coincident with a reorganisation of the out-patients' department and the granting of increased facilities for the patients. A registration fee is charged under the new system to all able to pay this amount.

The receipts of the children's hospital for three years have been as follows:—

	1896.	1897.	1898.
	£	£	£
From Government ... ..	1,484	1,409	1,480
Subscriptions and donations . . . .	1,689	1,653	1,818
From patients ... ..	508	505	408
Other sources ... ..	28	24	27

The hospital receives payment from patients, and the sum of £408 6s. 2d. is credited to that source in the receipts for 1898. The sums received varied from a shilling or two to £1 a week.

A special feature of the hospital is the endowment of cots or beds which can be carried out for one or more years, for the lifetime of the donor, or in perpetuity, in accordance with the amount given.

The rules showing the conditions under which cots can be endowed are set forth in the annual reports of the hospital. At present there are three endowed cots, each paid for at the rate of £50 a year.

The financial position of the hospital, explained by the honorary treasurer, is as follows:—

The main hospital is freehold, the property of the Board of Directors, and free from encumbrances; but on the diphtheria branch a sum of £2,500 is owing under a mortgage.

The hospital possesses £47 11s. as an endowment account; £100 as a building account; £750 as a perpetual subscribers' fund; and a legacy of £7,850, likely soon to be increased by some £2,000, under the will of the late Mrs. Hunter-Baillie. The sums are all ear-marked for certain purposes by the direction of the donors or legators, and are not available for the current expenses and purposes of the hospital. All sums given to the hospital, and not specially set apart in the manner indicated, have been spent in the purchase of the land and buildings or for current expenses.

The work which this hospital is doing is generally of a most useful character. The community is specially indebted to it and its medical officers for the reception of cases of diphtheria, whereby the danger of infection has been removed from many households, and for the scientific treatment of this malady, which has saved many lives and added greatly to the knowledge of the medical profession with regard to the methods advisable in combatting one of the most fatal of diseases.



## Appendix B.

## BALMAIN COTTAGE HOSPITAL.

This hospital was established in 1884, and the work was first carried on in a weatherboard cottage standing at the back of the present Council Chambers.

The present site, which is 1 acre in extent, was, with a cottage standing on it, purchased in 1885, and additions were subsequently made which increased the accommodation to its present amount, which is as follows:—For men nine, for women seven, and for children six beds; a total of twenty-two beds.

The hospital is well situated in an elevated position, with a public park in front, and the back windows commanding a somewhat extensive view. It consists of a central cottage, which contains the women's and children's wards, an operating-room and consulting-room, kitchen, and offices, and most of the accommodation for the staff. On the left of this is a recently-erected, partly-detached, handsome ward for men, built of brick and stone; and on the right, occupying a site which will serve for the future extension of the hospital, is a weatherboard building, which serves as a waiting-room for out-patients, a board-room, and a secretary's office.

The matron and staff are comfortably lodged. The wards are bright, well-kept, and cheerful; and at back of the hospital are out-buildings containing laundry, closets, mortuary, and also a furnace for the destruction of dust, refuse, dressings, and other obnoxious material.

The site is freehold, and, with the buildings now on it, except the operating theatre, has cost £4,605, which has been provided as follows—Public subscriptions, £4,400; Government grant, £200. The cost per bed has been about £210, exclusive of the operating-room.

The hospital is under the provisions of the Hospitals Act, and is governed by a committee elected annually, and consisting of a president, vice-president, honorary treasurer, honorary secretary, and nine members; and, in addition, five trustees have seats on the Board. The committee meet once a month, and an executive committee, consisting of the executive officers and four members of the committee, meet also twelve or thirteen times a year, and carry out the details of management.

The medical officers until lately consisted of two honorary medical officers and one medical officer paid £100 a year, with the immediate charge of out-patients; but a change has recently been made under which the number of honorary medical officers has been increased to four, and the paid medical officer has been placed in a more responsible position with regard to accidents and urgent cases, and the first treatment of the cases admitted.

Up to within a recent period the hospital has been regarded as one mainly for accidents, but the refusal to admit urgent medical and other cases has been the subject of complaints made to this Commission, and the need for the admission of other than accidents appears to have been brought before the committee, who have decided to admit all urgent cases except those of typhoid and infectious diseases. It is understood that typhoid cases will be admitted as soon as connection is made with the main sewerage system.

The number of patients in 1893 was 116, of whom sixty-nine were accidents. The average number of beds occupied daily was 6·65, and this small number brings the cost per bed to the high figure of £83 17s. At the time of our visit the number of beds occupied was thirteen, and the average daily number resident is, under the new rules, likely to be higher, and the maintenance rate considerably less. The in-patients are not admitted under subscribers' orders, but are chiefly recommended by medical men according to the necessity and urgency of the case. The sum of £71 10s. was collected from in-patients in 1898, the contributions ranging from 5s. to 21s. a week, which is the highest amount charged. The total payments in one case reached to £13 16s.

The

The out-door department appears to be growing; the number of patients treated last year was 1,558, being eighty-five more than in 1897, and the estimated cost was £291 10s. No registration fee is charged. Subscribers of 1 guinea are allowed to recommend five out-patients, and in doing so certify that they are necessitous cases.

The cost of the out-patients' department is stated to be £291 10s., made up as follows :—

	£	s.	d.
Medical officer ... ..	100	0	0
Drugs, dressings, &c. ... ..	51	0	0
Other expenses... ..	140	10	0
	<hr/>		
	£291	10	0

The nursing staff consists of a matron at £72 a year, a sister at £40—both of whom are certificated nurses—and two probationers, who receive from £18 to £25, according to length of service. The probationers get practical work, but no teaching, and they generally stay only a short time, and enter for training at one of the larger hospitals. The remaining members of the staff are a cook, laundress, and porter.

The income of the hospital was as follows in 1898 :—

	£	s.	d.
Subscriptions and donations ... ..	501	3	10
Contributed by patients ... ..	71	10	0
Interest on fixed deposit ... ..	15	10	0
Government subsidy ... ..	565	10	6
Miscellaneous receipts ... ..	3	7	6
	<hr/>		
	£1,157	1	10

The hospital has the sum of £450 at fixed deposit, this being the result of savings—the income being in excess of the expenditure. There was also a sum of £316 2s. 6d. at credit of current account, of which £308 appears to have been savings in the year 1898. The committee intend to expend these sums in adding to the accommodation of the hospital.

The hospital is well kept, and is in a neat and orderly condition throughout. The inhabitants of the district are said to take a great interest in its management and welfare, but the subscriptions towards its maintenance by no means large, considering the population of Balmain now, which amounts to about 30,000.

The patients come, for the most part, from Balmain, but some are sent from Drummoyne, Leichhardt, and other neighbouring suburbs, and the surrounding districts served by the hospital.

#### MANLY COTTAGE HOSPITAL.

The Manly Cottage Hospital was opened in 1897. The building is of brick, picturesque in appearance, and standing on an elevated position, from which very extensive views are obtained. The area of the site is about half an acre. The original building has been enlarged by the addition of operation room, bedrooms for the nurses and staff, laundry, &c.; and the cost for land, building, and furniture has amounted to as nearly as possible £2,000; the cost per bed being £167. This sum was raised partly by subscriptions and donations from the public, and partly by a Government subsidy amounting to £1 per every £1 subscribed. There has really been no special grant by the Government, for though £250 was given under this head, it was really £1 for £1 against a sum raised by a flower-show. The building is now freehold, the property of trustees, and is without debt.

The number of wards is two, one male and one female, each containing four beds and a cot; and there is in addition one special room for operations and other cases requiring extra care, and one isolation room (formerly the operating room) for infectious and septic cases occurring in the hospital. So that the total accommodation is for twelve beds. The matron and nurses' quarters, and also those for the other members of the staff, are very good. The operating room is on the most modern principles, and is elaborately fitted and admirably kept. The kitchen and offices are sufficient, and the bathrooms and lavatories of modern and proper construction. The hospital is in fact a serviceable and satisfactory building, with all necessary fittings and appliances, and has been built at a moderate cost, but it seems inadvisable not to have secured a larger area of land in the first instance. Already one addition has been made to the area, and the acquisition of a further quantity is desirable.

No cases, except those of infectious disease, are refused, and typhoid is received. The beds are, however, very largely occupied by operation cases—the total number of operations in 1898 being 50, or 35·9 per cent. of the total number of cases treated. The total number was 139, and the daily average number 8·9; 67 per cent. of the patients were women and children. No out-patients are treated. The cost per bed in 1898 was £56 10s.

The Board of Management is a very large one, and consists of a patron, a president, four vice-presidents, five trustees, honorary secretary, honorary treasurer, and honorary solicitor, seventeen members of committee, of whom ten are ladies. The two honorary medical officers also have seats. The number is altogether thirty-three, and sometimes as many as twenty attend the meetings, which are held once a month. The number would appear to be unwieldy, but is defended on the ground that the larger the committee the larger is the sphere of interest and influence, and the larger the support given in subscriptions and donations. The details of management are entrusted to an executive committee on lines similar to those at the North Shore Hospital. There are two honorary medical officers, and the resident staff consists of matron, who is a certificated nurse, at £66, one nurse at £34, and a probationer, who receives £16 for the first year, and £24 after one year's service. No teaching, except in practical nursing work, is attempted, and the committee desire that the probationers should only stay one year, and then go for training to one of the Sydney hospitals, but this is not always practicable. The remaining staff consists of a general servant and a wardman. Some of the laundry-work is done at the hospital, and the remainder is sent out.

The income of the hospital in 1898 was derived from the following sources:—

	£	s.	d.
Subscriptions and donations ... ..	524	4	11
Payments by patients ... ..	52	4	6
Government subsidy ... ..	571	0	4
Minor receipts ... ..	1	10	0
	<hr/>		
	£1,148	19	9

And at the end of the year there was £209 13s. 1d. at the credit of the hospital's current account, and also an amount of £400 invested. The payments from patients are made up of minor donations, and of weekly sums towards maintenance, and though £1 is said to be the maximum charge, it would appear that larger sums are not refused if offered.

There are no subscribers' orders, and the patients are recommended to the medical officers and sent in to the hospital by them, if found to be fit cases from a medical point of view.

The hospital is bright, comfortable, well kept, and homely, and the officials appear to take a very keen interest in its medical, financial, and general success. The subscribers' list is a comparatively large one, though many of the sums are small, and with the donations in kind, &c., shows that the interest in this institution is widely spread in the district which it serves. This district includes Manly itself and its immediate neighbourhood, and the whole district lying to the north as far as Barrenjoey, and including Narrabeen, Newport, Bayview, &c.

## MARRICKVILLE COTTAGE HOSPITAL.

The committee of this hospital published its fourth annual report in January, 1899, but its operations appear to have, up to the present, been mainly confined to collection of subscriptions, purchasing a site, and erecting the building, which was recently opened.

The site, which is somewhat under an acre in extent, is well situated near to Dulwich Hill, and within a very short distance of the tramline. The only drawback is its somewhat limited area, which will, when the drying-yard and the gardens and shrubberies, which it is advisable should be placed along the boundaries, are laid out, leave little or no room for additional buildings, should these be found necessary.

The hospital is stated to have been projected to make provision for accidents and urgent cases in a district the population of which approximates to 20,000. The nearest hospitals are the Prince Alfred, at Newtown, and the hospital under the care of the Nursing Sisters at Lewisham.

The building, which has a very pleasing elevation, is built of brick, and has accommodation in two wards for 12 patients—8 women and children and 4 men, this proportion having been adopted after much consideration, on the ground that it is found by experience in other cottage and suburban hospitals that women are more ready to go themselves and to allow their children to go to hospitals which are near their own homes than to larger hospitals at a distance, and that the women's wards are therefore more sought after in these small, local institutions. The administrative buildings, which consist of kitchen, scullery, laundry, store-rooms, pantries, a large operating-room, and the quarters for the staff, are in the rear of the main building and connected with it by a covered corridor. The whole plan of the building has evidently received careful consideration, and the details of construction show that the committee, or at all events some of its members, have a knowledge of practical details as well as an intimate acquaintance with modern hospital requirements.

The hospital was fitted and furnished throughout, the bedsteads, beds, and bedding being largely gifts from individuals; and the matron, who has had considerable hospital experience, was engaged, at the time of our visit, in the practical details necessary before patients could be admitted.

The hospital is under the Hospitals Act, and has a Board of Management, consisting of a president, four vice-presidents, an honorary secretary, an honorary treasurer, an honorary solicitor, and eight members of committee, of whom two are ladies. The honorary medical officers, four in number, have been appointed, and also the matron and one or two subordinate members of the staff.

The cost of the hospital up to the present has been as follows:—

	£	s.	d.
Land	344	5	9
Fencing, building, and fitting and laying-out grounds	2,081	9	5
Furnishing	174	18	9
Preliminary minor expenses	335	1	9
Total	£2,935	15	8

during four years and a half, the main part of which has been met as follows:—

	£	s.	d.
Subscriptions and donations	1,341	2	11
Government subsidy	983	1	4
Special grant	500	0	0
	£2,824	4	3

The

The cost per bed, including land, building, furniture, and preliminary expenses, has been £245, or, excluding the preliminary expenses, £216.

The present intention of the directorate is not to receive payments from patients, but how far this arrangement will be adhered to time will show.

The hospital is connected with the main sewerage scheme for Sydney, and is supplied with water from the Sydney supply.

#### NORTH SHORE HOSPITAL.

This hospital was opened in 1888, and is built on a plot of land about 1 acre in area, which was given by the late Mr. Berry. The site is surrounded by streets on all four sides, and there are no possibilities of extension. The hospital buildings are close up to the boundaries on three sides, and the unoccupied ground is only large enough for a laundry and drying-green.

The original idea was for a cottage hospital, and the plans were drawn with no allowance for extension. The growing population has necessitated an increase in the number of beds and certain additions and alterations, so that the hospital has become badly arranged, and also difficult to work and to keep clean owing to the large amount of corridor and passage space.

The hospital has indeed outgrown its site, and the population of the district—now, it is said, about 40,000—demands additional hospital accommodation. It has, therefore, been decided to make a new beginning on a new site, and the Government has granted 8 acres of land for this purpose. This land is in an elevated position, and is at a short distance from the present hospital, and being in a situation convenient of access by rail, road, and tram, seems very suitable.

No steps have yet been taken for collecting funds for the new building, and the question of disposing of the old one is as yet premature. In the meantime no money is being expended on the present hospital, except so far as to keep it weather-tight, and to effect such repairs as may be absolutely necessary. The building and its appurtenances now show the result of this policy.

The short-sighted arrangement under which an hospital was originally erected on a plot of land too small even at first, and allowing no room for expansion in a rapidly-growing neighbourhood, is open to criticism; but the very rapid growth of North Sydney, which seems destined to attain ere long the dimensions and population of a large city, could, perhaps, not have been anticipated. At all events, the mistake which has been made is not likely to be repeated, and it seems essential that the new hospital should be designed on a plan capable of extension to meet ultimate requirements.

The cost of the hospital was about £3,100, and up to the time it was handed over by the provisional committee £1,758 had been raised by public subscriptions, and £1,941 received from the Government. The cost per bed was about £124.

The hospital has four ordinary wards, and a so-called isolated ward, which, however, is only so in name, as it is part of the main building. The latter ward was designed for infectious or septic cases occurring in the hospital, but appears to be mainly used for other cases than these. The number of beds, including those in the isolated ward, is twenty-five—eleven for men, twelve for women, and two for special cases; and the average daily number of patients in residence in 1898 was 16.66. There are no private wards.

The administrative buildings comprise quarters for the staff, to which no great objection can be taken, operating-room, which, though well kept, is not up to modern requirements, kitchen, laundry, and other out-buildings, which all show evidence of temporary economy in the absence of paint, minor repairs, &c.

The wards are cheerful and thoroughly clean, though two of them are not well adapted for hospital purposes; but some of the ward adjuncts, bath rooms, &c., are not as well kept as they might be.

The closets are earth, but will shortly be connected with the North Shore main drainage scheme. The water supply is from the Prospect system.

The

The committee is elected at the annual meeting, and meets once a month. It consists of president, three vice-presidents, four trustees, honorary treasurer, honorary secretary, and honorary solicitor, and nine members of committee, and the honorary consulting medical officer and the four honorary medical officers have seats on the committee, and make up a total of twenty-six members. An executive committee, consisting of the officers and one member of committee, meet weekly and direct the internal economy of the hospital.

The nursing staff consists of one matron at £72, who is a certificated nurse, one head nurse at £36, one assistant nurse and three probationers at £20 a year each, with rations and quarters. The probationers are engaged for three years, and are trained at the hospital; but the arrangements for teaching are not satisfactory, and it is doubtful if hospitals of this calibre should ever undertake the complete training of, and give certificates to, nurses who cannot be as satisfactorily educated, either in theory or in practice, as those who have spent their probationary period at a fully-equipped and large hospital. The nursing staff is in the proportion of about one to every two or three patients, and the regulations for their guidance and the hours on duty are founded as far as possible on those in use at the Prince Alfred Hospital, at which the three last matrons were trained. The other members of the staff are wardsman, cook, and housemaid. The whole of the laundry work is done by a non-resident laundress.

The number of in-patients in 1898 was 375, being twenty-four in excess of the number for 1897; and it is said the accommodation of the hospital was for some months much strained.

All forms of disease, except infectious cases, but including typhoid, are now received. According to the rules patients are admitted on orders from subscribers, but, in practice, this custom has been abolished; orders are not now issued to subscribers, and the qualification for admission is a medical certificate as to fitness, and a statement on the part of the patient as to necessitous circumstances.

The sum of £138 8s. 1d. was received from patients in 1898, in sums which ranged from 2s. 6d. to £1 per week; but the committee would take larger sums if it could obtain them, even if they were in excess of the maintenance rate, which for 1898 was £77 18s., and is, under the circumstances, somewhat high.

No out-patients are treated, and the casualties seeking treatment are very few.

The income of the hospital for 1898 was as follows:—

Subscriptions and donations	...	...	£647	7	3
From patients	...	...	138	8	1
Government subsidy	...	...	407	8	1
Rent	...	...	15	17	3
Interest on Walker bequest	...	...	10	3	3
			<hr/>		
			1,219	3	11

The rent is derived from an estate of 21 acres in Willoughby, which was left for the benefit of the hospital without restriction as to disposal, and which the committee propose to sell and apply the proceeds towards the erection of the new hospital.

The Walker bequest consists of the sum of £300, left by the late T. Walker, which has been temporarily drawn against to meet current expenses.

The hospital has no endowment or invested funds, all donations, &c., having been expended in buildings.

The hospital appears to be working smoothly and well.

#### ST. GEORGE'S COTTAGE HOSPITAL, KOGARAH.

This hospital was opened in 1894, and some additions, in the shape of an additional ward, &c., were made in 1896.

It is a slightly brick building of one storey, and stands on 3½ acres of land, which were purchased, with a strip to give access, at a cost of £860. The view from the building and its verandahs is a fine and extensive one, and includes the wide expanse of Botany Bay. The buildings, furniture, and equipment, together with

with the additions, cost £1,890, making, with the cost of the land, £2,750, or £250 per bed. Of this amount, £1,892 was obtained by subscriptions and donations, and £768 was given by the Government in the form of special grants.

The building is now freehold, invested in trustees, and without debt.

There are two wards, one for women and children, containing eight beds, and one for men, containing three, giving a total accommodation of eleven beds. The wards are clean, comfortable, and cheerful, and there are pleasant views from the windows.

The administrative buildings consist of Board-room and office, quarters for the matron and staff, kitchen, laundry, operating-room, and minor offices. The quarters for the staff are adequate, but some of the other rooms err on the side of being too small; and the operating-room, which is used also as a folding and sorting room for linen, is small, and contains few of the fittings now considered necessary.

The number of patients was 121 in 1897, and 112 in 1898, and the daily average number resident was 6·5 in the former and 7 in the latter year; so that there does not appear to have been any undue pressure on the accommodation, though the matron reports that male patients, for whom there are only three beds, have sometimes to be refused for want of room. No out-patients are treated.

Typhoid cases are received, and the only cases refused are those of infectious disease. The hospital has no room for the isolation of cases of infectious disease or others requiring separation which occur in the hospital, and this is, no doubt, a want which should be met.

The number of operations in 1898 was seventeen, and was only a little above this in 1897, so that the amount of operative surgery is not so large as at some similar institutions. Twenty-seven of the total number of cases in 1898 were accidents.

The committee, elected in accordance with the provisions of the Hospitals Act, consists of a president, six vice-presidents, honorary secretary and honorary treasurer, three trustees, and eleven members, and meets once a month. The executive committee, which attends to matters of internal management, is composed of the president, one vice-president, honorary treasurer, honorary secretary, and one member of committee, a total of five. This arrangement is said to work satisfactorily.

There are six honorary medical officers—a number which appears very large when it is considered that the average daily number of patients for two years past has not exceeded seven.

The resident staff consists of a matron, who is a certificated nurse, at £60 a year; one nurse, at £25; and three probationers, who receive £12 for the first, £16 for the second, and £20 for the third year of service. The probationers are not trained except in practical work. They carry out the whole of the domestic service—the only other members of the staff being the wardman and gardener—and they generally leave to commence as probationers in one of the larger hospitals. This arrangement the committee considers to be satisfactory. A laundress comes to the hospital on one day a week.

The income of the hospital in 1898 was as follows:—

	£	s.	d.
Subscriptions ... ..	70	0	6
Donations. ... ..	226	2	9
Government subsidy ... ..	111	0	1
„ special grant ... ..	167	19	10
Minor receipts ... ..	6	10	0
	<hr/>		
	£581	13	2

and at the end of the year there was a credit balance of £69 3s., and a Government subsidy of £284 was owing.

The list of subscribers is a small one, and a considerable part of the receipts comes from the proceeds of entertainments, &c., got up specially for the benefit of the hospital.

The

The hospital has no endowment, and is in the peculiar position of receiving no part of its income from patients.

The general management appears to be economical, the cost per bed in 1897 having been £57 8s., and in 1898, £65 14s. These calculations require some correction, as the authorities, in arriving at the average daily number of beds occupied, have reckoned three cots, or children's beds, as equal to two ordinary beds, and the real cost is somewhat less than above stated.

The district served by the hospital comprises the whole of the suburbs on the Illawarra Line extending as far as Sutherland, and considering the population it might possibly have been expected that the calls on the accommodation of the hospital would have been greater.

#### WESTERN SUBURBS COTTAGE HOSPITAL.

The committee of this institution published its Seventh Annual Report at the close of 1898, but the hospital was not opened till October, 1894.

The building first erected and the more recent additions are all of brick, and form a picturesque group, standing in a pleasant garden on high ground near the western boundary of the borough of Ashfield.

The site is in area about 2 acres, and slopes rapidly to one of the main storm-water channels in the neighbourhood, by which ordinary drainage is carried off. The closets are on the earth system, but connection with the main drainage scheme will shortly be made. The hospital is governed by a committee of eighteen members, in whom the president, three vice-presidents, three trustees, an honorary treasurer, and an honorary secretary, and an honorary solicitor are included. It meets once a month for the despatch of business, and the executive work of the hospital is carried out by committees—visiting, finance, &c.—who meet about once a fortnight. There are two honorary consulting medical officers and three honorary medical officers, and one of each of these has a seat at the Board, and is included in the eighteen above mentioned.

The hospital consists of three wards—one for women and children, containing nine beds; one for men, containing four beds; and one accident ward for men, containing two beds, giving a total accommodation for fifteen. The total number of patients in 1898 was 149, and the daily average number resident was twelve. There are no beds for infectious cases, and no private wards. The administrative buildings include very excellent accommodation for nurses in a separate building, rooms for the matron and servants, kitchen, laundry stores, and out-buildings, a well arranged and fitted mortuary, and an operating-room, which is the latest addition to the hospital, and is arranged and fitted in accordance with the most advanced ideas, a quantity of the fittings and apparatus having recently been obtained from Germany.

All cases, except those of infectious disease, are admitted, and there are almost always one or more cases of typhoid, the number of these for 1898 being twenty-four.

The medical officers report that the wards are almost constantly full, and that the demand for beds frequently exceeds the supply.

The out-patients in 1898 numbered eighty-nine, and these were for the most part minor casualties and accidents.

The nursing staff consists of a matron at £72, who is a certified nurse, two nurses at £25, and two junior nurses at £17 to £20. The nurses enter as probationers, and are trained altogether in the hospital, an arrangement which, considering the limited size of the hospital, cannot be considered as qualifying them in all departments of nursing work.

The other members of the staff are one cook, one housemaid, and one wardsmen and gardener, and the services of a laundress are engaged for one day a week.

The



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The cost per bed in 1897 was £87 12s., and in 1898, £81 19s.

The income of the hospital in 1898 was as follows:—

	£	s.	d.
Government subsidy ... ..	1,007	8	7
Subscriptions, donations, proceeds of entertainments, and Hospital Saturday Fund ... ..	731	6	3
Payments by patients ... ..	49	10	6
Minor receipt ... ..	1	10	0
	<hr/>		
	£1,789	15	4

The number of annual subscribers, considering the number of inhabitants well able to contribute in the district served by the hospital, is very small; but there appears to be no difficulty in obtaining help by means of fetes, concerts, balls, &c., given to collect money for the hospital, and the honorary treasurer reports that there is not, and has never been, any difficulty as to funds. The hospital has no endowment fund, and all donations have been spent in buildings and current expenditure, but the accounts show that the hospital has a fixed deposit at the bank of £500 and a balance at current account of £502, which have accrued from excess of income over expenditure.

The payments by patients are not a large item in the hospital receipts, but all sums offered are taken—from 1s. as a donation to £1 a week. No larger amounts are received. Orders for admission of patients are not given to subscribers, and admission is determined by the medical officers, who report on the urgency of the case from a medical point of view. The patients are for the most drawn from the surrounding district, but some are received who come from distant places, and appear to have no special claim for consideration at a local hospital.

The following figures are interesting as showing the cost of the hospital:—

Land ... ..	£1,500
Building and furniture, original hospital ...	2,140
Additions and furniture ... ..	500
	<hr/>
	£4,140

which was met as follows:—

Subscriptions and donations ... ..	£1,854
Government subsidy, £ for £ ... ..	1,536
Special grant for original building ... ..	500
Special grant for additions—nurses wing, &c. ...	200
Special grant for instruments, &c., &c. ... ..	50
	<hr/>
	£4,140

The hospital, including cost of land, has cost £276, and, excluding cost of land, £176 per bed.

The cost of land, amounting to £100 per bed, appears very excessive, though the area, 2 acres, is not larger than is required for the present use and future growth of the hospital.

The hospital is a singularly bright, homely, and cheeful place, and the details of management evidently receive the most careful attention from the committee and the officers immediately in charge.

## Appendix C.

## BULLI HOSPITAL.

This hospital was opened in 1893. It stands in an elevated position on a site in area about 1 acre, which was a gift by a resident. The building is of brick, and carefully planned, and we are informed its cost, including furniture, fencing, &c., was £1,000.

The accommodation is for five beds—three for men and two for women. The main building contains the two wards, a committee-room and office, a room for the wardman and matron, and the necessary store-rooms, closets, &c. Connected by a covered way is a bath-room, kitchen, laundry, and general dining-room, all sufficient in size, and properly and neatly kept. There is no operating-room, no ward for infectious cases, and no mortuary; but the erection of the two latter is under consideration by the committee. The hospital is well and suitably equipped as to beds, bedding, and other necessaries, and is kept in a clean and orderly condition.

It is governed by a committee of twelve members, together with a president, vice-president, hon. treasurer, and hon. secretary, and this committee meets once a month and manages the whole business of the hospital. The visiting committee, which consists of three members, is elected quarterly. It has no executive function, the duties of the members being to visit the hospital, either alone or together, once a week, and report to the general committee.

There are three trustees, of whom two are members of the Committee. There are two hon. medical officers, who have not seats on the committee.

The entire staff consists of an elderly married couple, who act as wardman and matron, and who appear to be kindly people, much interested in the hospital. Their joint salary is £40 a year. Last year the secretary, who is a member of the committee, received an honorarium of £10.

The total number of patients in 1897 was 11, and the average daily number 0·44; and in 1898 the number was 9, and the average daily number 0·47. From the above figures it appears that on the average the hospital is empty for more than half the year, and for the remainder has only one patient, hence the very high maintenance rate, which, for 1898, was £19 16s. 2d. for each patient treated, and at the rate of £379 for each bed occupied. There was no patient in the hospital when it was visited.

The cases treated in 1898 were as follows:—Ophthalmia, 1; abscess of orbit, 1; œdema of arm, 1; hernia, 1; dropsy, 1; Bright's disease, 1; fractures, 2; and burn, 1; and those treated during the first six months of the current year were—gunshot wound of hand, 1; general bruising, 1; fissure of anus, 1; phimosis, 1; amputation of thumb, 1; abscess of hand, 1; rheumatism, 3; prostatic disease, 1.

Several of these cases would have been treated as out-patients in the metropolitan hospitals.

It does not appear that more than sixteen patients have been received in any one year since the hospital has been established, and an examination of the register shows that the cases have not been, as a rule, of a serious character. Of the cases above particularised, all, with the possible exception of two or three, could have readily gone to Wollongong or Sydney for treatment, and even the more serious could have been taken by rail or ambulance without any injury or inconvenience. Under these circumstances it is difficult to justify the existence of this hospital, which is within 6 miles by rail and 7 miles by road of the hospital at Wollongong, to which the patients more seriously ill could be readily transferred by a properly-equipped ambulance, which would not involve one tithe of the present cost of the hospital, and by which even serious emergencies might be met.

There are no out-patients, and all the in-patients, with an occasional exception, come from the immediate neighbourhood.

The total payments by patients amount to only a very small sum annually, not, as a rule, exceeding £5. The admission is by subscribers' orders and recommendations, subject to medical examination and certificate of fitness, but accidents, emergencies, and all cases sent by the police or Government Medical Officer are at once received.

The income of the hospital in 1898 was as follows :—

	£	s.	d.
Subscriptions and donations... ..	73	17	5
Payments by patients ... ..	6	5	0
Government subsidy ... ..	72	10	0
Interest on fixed deposit ... ..	4	18	1
Minor receipts ... ..	2	7	0
	<hr/>		
	£159	17	6

The hospital closed the year with £2 6s. 3d. to its credit, and had a fixed deposit of £150, resulting from accumulated savings, in the Government Savings Bank.

Mention is made in the annual report of a special grant from the Government of £75, but this does not appear in the annual statement of accounts as it was received subsequent to the 31st December, 1898.

The number of subscribers is twenty-seven only, and of life members, three.

The hospital appears to be regarded with interest by the inhabitants, despite its small subscription list, and it is undoubtedly well kept, but it is difficult to justify either its inception or its continued maintenance, when the patients could be treated at a cost so much lower at Wollongong or in Sydney.

#### BATHURST DISTRICT HOSPITAL.

The present hospital, which has been built about twenty years, stands in 10 acres of ground, the whole of which was granted by the Government. No additions have been made since its first erection. The contract was for £10,000, and the total cost, including furnishing, was £13,200. The hospital was formally opened by his Excellency the Governor on the 9th November, 1880, and its occupation commenced on 4th December.

The Government contributed £ for £ to the cost of the building and furniture, and everything was handed over free from debt.

This building is in three divisions, the central consisting of two storeys and a tower, and two wings of two storeys each. The central division is devoted to administrative purposes, and contains the Board-room, secretary's office, surgery matron's and nurses' rooms, two private wards with one bed each, dispensary, and operating and instrument rooms, &c. On the first floor of the tower, separated from the building proper by a balcony giving a free passage of air, is the infectious diseases ward, containing three beds. The administrative section is only large enough for the present staff of officers. The south wing contains, on the ground floor, the male surgical and accident ward, with ten beds; and on the first floor, the male medical ward, with ten beds. The north wing contains, on the ground floor, the female general ward, ten beds; and on the first floor, a ward not furnished, not at present required, and used as a sewing and work room, but having space for ten beds. The building thus furnishes space for forty-five beds at a cost of £13,200, or an average per bed of £293.

The kitchen and cook's room are situated in the basement of the tower; and the laundry and drying-room (erected since the establishment of the hospital) are located in a separate building, which cost £1,200. This money was derived from the sale of the old hospital land, which, when the old hospital was burned down, was given to the New South Wales Government by the Imperial Government, and was then granted to the Bathurst District Hospital, on condition that the proceeds of its sale should be utilised in building. There is sufficient accommodation in this laundry to do the washing of four or five times the number of patients.

The

The hospital has a reserve fund of £5,000, some of it lent out at interest on mortgage, &c. There have been a number of bequests. From the late Mr. Thomas Walker the hospital received three amounts of £500. When bequests have been received it has been usual to place them in reserve, though they have not been given on that condition. The late J. N. Gilmour, Esq., left by his will £500, vested in his own trustees, the hospital to receive the interest.

Whenever there has been a surplus it has been put aside. The reserve has been invested in Government debentures, excepting one amount on a property which had to be taken over. There is also another property, which was left to the hospital by Mr. J. Poolc.

The income of the hospital is derived from interest on the reserves, the annual subscriptions, the Government subsidy of £ for £ on the subscriptions, and sums received from paying patients. The total receipts for 1898, from all sources, were £1,408 6s. 11d.; total expenditure, £1,408 7s. 3d.

#### Summary of Financial Statement, 1898.

	£	s.	d.		£	s.	d.
Balance in Savings Bank and Com- mercial Bank, 31/12/97...	1,038	1	1	Expenditure ... ..	1,408	7	3
Government endowment for 1897 ...	456	15	3	Balance in Savings Bank and Com- mercial Bank, 31/12/98 ...	1,038	0	9
Subscriptions, &c., &c., &c. ..	951	11	8				
	<hr/>				<hr/>		
	£2,496	8	0		£2,496	8	0

During the last two or three years subscriptions have fallen off seriously; this is attributed to the bad times, and to the people not being properly canvassed throughout the whole of the district. Last year the mines at Blayney, Mount David, and Sunny Corner gave very liberally, and made no conditions whatever about nominating patients.

There are five trustees, elected for life, in whom the building is vested. The trustees are not now *ex-officio* members of the committee, which consists of a president, two vice-presidents, and twenty members, who are elected annually by subscribers of a £ or over. Meetings are held on the first Monday in each month, the average attendance being twelve or thirteen. There are also visiting and house committees.

The house committee, which is primarily for dealing with all matters relating to the staff and the food supply, consists of the president, treasurer, and three members of the general committee.

The visiting committee, which is elected each month, and visits the institution once a week, deals with all applications for admission, the general cleanliness and order of the hospital buildings, and the well-being of the patients.

The nearest hospital to Bathurst on the S.W. is that of Carcoar, distant 39 miles; on the north, Mudgee, 125 miles; on the east, Lithgow, 49 miles, and on west, Orange, 49 miles; but more than one-third of the patients come from outside that area.

Dr. W. F. Bassett is the honorary consulting surgeon and physician. There are four honorary medical officers (Dr. D. T. Edmunds, Dr. W. P. Bassett, Dr. Brooke Moore, and Dr. W. B. Cortis). The medical officers are elected annually by the committee. At one time a paid medical officer was employed, but the local medical practitioners offered to do the work gratuitously, and a paid dispenser was appointed.

There are a matron, a secretary and dispenser, seven nurses, a cook, a housemaid, a general servant, a porter, and a laundress (three days a week); and the total amount of salaries paid during 1898 was £683 3s. 4d. The matron's salary is £100 per annum, and the salary of the secretary and dispenser, who does not reside at the hospital, is £192 10s. per annum.

Nurses

Nurses, after a month's trial, enter on a three years' probationary period, the payment in the first year being 10s. per week; second year, 12s. per week; and third year, 14s. per week. It is provided in the rules that "Each probationer, upon the completion of her three years' engagement to the satisfaction of the committee, shall receive a certificate of competency as a duly-trained hospital nurse."

The nurses' hours of duty are from 7 to 7, less three half-hours for meals. The holidays allowed are—(1.) Half a day off each week; (2.) A full Sunday off each in turn—about every fourth or fifth Sunday; and (3.) Three weeks' holiday in each year. There have been no complaints of overwork. The matron is of opinion that eight-hour duty would not be found to answer.

The average daily number of patients during the last year was twenty-eight, and the average annual cost per bed was £50 6s. Patients are admitted under the old system of subscribers' orders, subject, however, to the medical officer's certificate of their fitness for hospital treatment.

Inquiries are made as to the financial circumstances of patients by the secretary and the visiting committee, and they are expected to pay whatever amount they can afford.

The visiting committee of three appointed each month have power to recommend patients for admission, but such patients have all to be examined by the doctor before they can be admitted. All urgent and accident cases are admitted at once.

The number of paying patients in 1898 was 112, or 25·7 per cent. of the whole.

The maximum charge for paying patients in the general wards, which used to be £2 2s. per week, is now 30s. Paying patients are, however, not received to the exclusion of those who cannot pay—they are only received if there is room for them.

The total number of in-patients last year was 436, of whom—

10	paid	...	...	...	...	2/6	per week.
25	"	...	...	...	...	5/-	"
1	"	...	...	...	...	7/-	"
6	"	...	...	...	...	7/6	"
20	"	...	...	...	...	10/-	"
3	"	...	...	...	...	12/-	"
19	"	...	...	...	...	15/-	"
13	"	...	...	...	...	20/-	"
6	"	...	...	...	...	21/-	"
8	"	...	...	...	...	42/-	"
1	"	...	...	...	...	63/-	"

112

The charge made by the hospital for patients occupying the private wards was formerly £4 4s., but has been reduced to £3 3s. For many years the medical officers were prohibited from making any charge for attendance on persons in a position to pay, but some two or three years ago the honorary staff pointed out that they were often called upon to treat cases which they had hitherto been treating outside, and which were only sent to the hospital as a matter of medical emergency—yet they were unable to make any charge, because of this rule. The rules were relaxed and the doctors are now allowed to make a charge, but not till the full hospital fee has been paid. The present rule on the subject is No. 21: "Applicants for admission, who shall be in a position to pay the hospital fee, shall make arrangements with the resident dispenser, who shall report the same to the visiting committee. This shall not exempt such patients from liability to the medical attendants charging a fee to be approved by the visiting committee." As a matter of fact, the visiting committee have never been asked for their approval.

Paying patients in the general wards are also allowed to make their own arrangements with the doctors, but they are not supposed to pay them anything until the hospital has received the 30s. a week fee.

The hospital is fairly well equipped with apparatus and instruments.

The following return shows the places in the Bathurst Hospital District from which patients were received during 1898, their cost to the hospital, the amount of fees received from them, and the subscriptions from their various districts:—

District.	Number of Patients.	Cost at 19s. 5d. per week.	Payment received.	Subscriptions received.
		£ s. d.	£ s. d.	£ s. d.
Blayney ... ..	11	60 18 0	.....	48 0 0
Burrage ... ..	6	15 1 0	2 15 9	.....
Brewongle ... ..	4	11 3 8	.....	7 2 0
Campbell's River and White Rock ... ..	5	21 16 4	1 0 0	2 11 0
Cow Flat ... ..	2	5 18 9	.....	.....
Cheshire Creek... ..	1	0 16 6	.....	.....
Cullen Bullen ... ..	3	1 18 8	.....	4 2 0
Caloola ... ..	1	1 18 8	.....	see Newbridge
Dunkeld ... ..	7	40 9 2	3 0 0	4 0 0
Duramana ... ..	1	1 10 4	.....	.....
Evans' Plains ... ..	2	1 10 4	.....	0 19 6
Edith ... ..	1	5 4 11	.....	2 18 0
Essington ... ..	4	15 14 10	1 6 0	.....
Fish River ... ..	4	8 14 0	2 6 0	see Trunkey
Glanmire ... ..	4	14 1 8	.....	.....
George's Plains ... ..	4	18 18 4	1 10 0	0 7 6
Hill End and Turon ... ..	10	29 13 9	5 10 0	.....
Kelso ... ..	5	58 11 0	12 10 0	16 5 0
Kirkconnell ... ..	2	13 7 10	.....	.....
Locksley ... ..	2	13 13 5	2 0 0	.....
Lyndhurst ... ..	1	17 13 6	.....	.....
Mount David ... ..	8	42 16 2	6 5 0	18 2 6
Mount Ranken ... ..	2	7 6 4	.....	.....
Milltown ... ..	5	9 2 3	1 15 0	2 8 6
Newbridge ... ..	10	46 8 0	2 5 0	5 7 0
Neville ... ..	2	8 14 0	.....	.....
Orton Park ... ..	3	12 11 4	1 5 0	see Perth
O'Connell ... ..	6	22 4 8	18 2 6	4 1 0
Oberon ... ..	4	16 11 5	2 0 0	.....
Peel ... ..	11	35 1 6	6 0 0	5 16 6
Perth and Vale Road ... ..	13	53 8 10	15 18 0	17 14 0
Raglan ... ..	3	5 10 5	.....	see Brewongle
Rockley ... ..	19	67 5 0	26 16 5	8 2 6
Sofala ... ..	4	12 5 9	2 2 0	5 0 0
Sunny Corner ... ..	11	38 13 4	1 0 0	West Mit. £5 S. Cr. £16 11s.
Trunkey... ..	4	4 11 1	.....	5 1 6
The Mount, Esrom, Eglinton... ..	3	10 9 10	.....	8 18 0
Tuena ... ..	4	9 5 0	.....	4 8 0
The Lagoon ... ..	1	5 10 5	.....	2 4 6
Tarana ... ..	2	9 10 6	6 6 0	6 0 0
Vittoria... ..	2	9 13 4	.....	see Dunkeld
Winburndale ... ..	3	7 17 5	.....	see Peel
Wattle Flat ... ..	16	46 8 0	6 7 0	13 1 4
Wiseman's Creek ... ..	1	10 9 10	.....	.....
Yetholme ... ..	2	4 13 10	1 0 0	.....

#### THE CARRINGTON CONVALESCENT HOSPITAL.

This hospital is situated on high land, in the neighbourhood of Camden, on an estate of 430 acres given by the late Mr. Paling, who in addition gave the sum of £10,000 for building purposes. This sum was supplemented by subscriptions from the public and a Government grant of £5,000; and the main hospital, with some supplementary buildings, cost about £20,000. The Masonic body erected a cottage adjoining the hospital, which holds six beds, and is worked in conjunction with it at a cost of £1,500. The buildings are sightly, though no money has been spent in external ornament, and the fittings and general equipment are thoroughly good and satisfactory. The total accommodation is for 100 beds, and the cost per bed nearly £206.

The

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The hospital is managed by a committee of twelve members, one-third of whom are elected by the subscribers, one-third nominated by His Excellency the Governor, and one-third nominated by the representatives of the donor of the estate, and from and by this committee the honorary treasurer and the honorary secretary are elected. There are three trustees, who are *ex-officio* members of the committee. There is a house or finance committee, a local committee, and a ladies' committee, the latter being really a visiting committee, with power to report only.

The visiting medical officers are two in number, and resident in Camden. Until lately their services have been honorary, but they now receive an honorarium of £25 a year each.

The nursing staff consists of a matron at £175 a year; 2 sisters, 1 at £15 and the other at £40 a year, who are certificated nurses; and 3 probationers. The remaining staff consists of 1 cook, 1 laundress, 1 assistant laundress, 1 matron's servant, 2 housemaids, a gardener, porter, and assistant porter, and seems somewhat excessive, considering the class of patients received.

The patients are sent to the hospital on the authority of the honorary secretary, after examination and certificate as to fitness, &c., by certain examining medical officers, who are the medical superintendents of the Sydney and Prince Alfred Hospitals, the resident medical officer of St. Vincent's Hospital, Dr. Clubbe for the Children's Hospital, the Government Medical Officer for Sydney, or his deputy, acting in the case of patients sent by the Government, and Dr. Gwynne Hughes for the Masonic patients. All patients are admitted for one month, and the period is extended on the recommendation of the visiting medical officers.

The Government pays at the rate of 2s. per day for all cases sent through the Government Medical Officer for Sydney, and an amount of 10s. for the conveyance of each patient to and from the hospital. All patients who have means are expected to pay; but the amount received from this source is small, the majority of the amounts vary from 2s. 6d. to 15s. per week, the total amount in 1897 being £199 1s. 8d., and in 1898 £90 18s. 6d. only. In the latter year seventy-two patients contributed the total.

The income of the hospital in 1898 was as follows:—

	£	s.	d.
Subscriptions and donations ... ..	633	16	8
Hospital Saturday Fund ... ..	105	0	0
Contributions from patients ... ..	90	18	6
Maintenance of Government patients ...	1,119	5	10
Government subsidy ... ..	845	12	2
Rents of land ... ..	125	0	0
Interest on endowment fund ... ..	23	2	0

The endowment fund is said to be made up chiefly of "sums that have been given specifically for that object" by different people, and amounts to £744 5s.

From these figures it will be seen that two-thirds of the total income of the hospital comes from the Government, and, although one-third of the directors is nominated by His Excellency the Governor, the Government has no direct voice in the government of the hospital.

The number of patients in 1897 was 1,153, and the daily average number resident was 78; and in 1898 the number was 1,082, and the daily average number resident 76. The average cost per bed was £35 3s. 9d. in 1897, and £35 11s. 4d. in 1898, and must be considered high when the class of patients is taken into account. The distance of the hospital from Sydney, and the cost of the transit of patients, add, no doubt, considerably to the cost of maintenance, amounting, as it does, to about £400 a year; and the very little assistance in the shape of work which is rendered by the patients necessitates, in the view of the directors, paid labour which need not otherwise be employed. On this point the committee's statement, in their report for 1898, that "it is with great regret that they have to mention that there have also

been not a few cases in which non-paying patients, sufficiently convalescent, have refused to help the hospital in any way, either by a donation in money or in work, when convalescent," would seem to point to the fact that the patients admitted are either not of the class for whom such an hospital is intended, or that the provision of paid labour and the feeling that everything is done for them, has tended to idleness in those admitted.

It is almost impossible to criticise the hospital so far as its general condition is concerned, and it is, no doubt, doing good work, though at a cost which is somewhat excessive.

#### DUBBO HOSPITAL.

This hospital was established in 1867, when the main building was erected. A fever-ward was erected about fifteen years ago; and some additions, which include quarters for the matron, were made at a more recent date. The total cost, we are informed, including repairs, was about £2,667.

The buildings, which are of brick, stand about a mile and a half from the town on an elevated site. The area of land belonging to the hospital is about 16 acres in extent. It was obtained from the Government, and is very suitable for its purpose.

In the main building there are three wards, two of five beds each for men and one containing three beds for women. The fever-ward gives accommodation for twelve patients in two wards. There is no isolation ward and no ward for private cases. The main building is of primitive construction, and defective so far as appliances and fittings are concerned, the bath-rooms being badly placed in regard to the wards, and the closets, which are old cesspits, being some distance away. The existence of cesspits in connection with an hospital is very unsatisfactory, and they should, as soon as possible, be replaced by water or earth closets. The drainage of the hospital runs on to a piece of flat ground forming part of the hospital site, and is said not to be in any way a nuisance. The excreta from the infectious diseases ward is burned. Water is laid on to the hospital, being obtained from the town supply. The plans for the fever-ward, which was built about fifteen years ago, as above stated, are said to have been submitted to the Government Medical Adviser for approval, but the building is very ill-designed for its purpose, and is without bathrooms, closets, or necessary fittings. It contains no rooms for nurses, and is inconveniently situated in relation to the present kitchen. The kitchen and laundry are sufficiently large, but not well planned. The nurses are accommodated in an isolated building at the rear of the hospital. Their quarters are decidedly unsatisfactory, inasmuch as the night-nurse is accommodated in a room with only a dwarf partition dividing it from another room appropriated to the two other nurses. The whole arrangements are wanting in such comfort as should be given to those engaged in arduous work. The matron's rooms, which are quite satisfactory, are in an annex to the original structure. There is no operating-room.

The committee is elected in accordance with the Hospitals Act, and is composed of fifteen members, from whom a president, two vice-presidents, and a treasurer are elected. There are five trustees, of whom three are members of the committee. The committee meets once a month. There is a house committee consisting of four members, who change once in every three months, and the officers, who are *ex-officio* members. This committee meets once a week.

The staff consists of a medical officer, who is paid £75 a year (and who calls in other practitioners for consultation when necessary); a matron, who is a trained nurse and receives £70 a year; one nurse, who has had about eighteen months' hospital experience and is paid £26 a year; and two probationers, £13 each. There is no system of training the nurses, and it is stated the probationers do not, as a rule, stay for more than a year at the hospital. The remainder of the staff consists of a wardsmen, a cook, and a housemaid. The secretary is a paid officer, receiving £25 a year.



Cases of all kinds are admitted, but the report of the hospital does not contain any table of the number of cases of each kind of disease treated; and there are no particulars of the number of cases of infectious diseases received during the last year.

The number of patients treated in 1897 was 237, and the average daily number during the year was thirteen. The number in 1898 was 260, and the daily average fourteen. The cost per bed in 1897 was £65 3s., and in 1898, £63 19s. These figures include the cost of the treatment of out-patients.

It is stated that, occasionally, there have been as many as twenty-two patients in the hospital; and in times of pressure the infectious diseases wards are used for ordinary cases.

The number of out-patients treated in 1898 was 154. No payments were made by them, but the sum received from in-patients was £42 12s. 10d. It appears that nine paid £1 and over, six paid 10s., three paid 5s., and the remainder smaller sums. The system of admission is by orders from the subscribers, but the patients are submitted to the medical officer before admission, and he certifies that they are proper subjects for hospital treatment or not. Cases sent by the police and by the Government medical officer are admitted without question. Of the total number of patients in 1898, 118 came from Dubbo or from the district within 10 miles of it, and the remainder were either travellers or belonged to some of the towns adjoining the district.

The income of the hospital in 1898 was as follows:—

	£	s.	d.
Government subsidy of £ for £ ... ..	301	19	3
„ special grant ... ..	99	19	10
Subscriptions and donations, and proceeds of entertainments ... ..	370	10	7
Contributions from patients ... ..	42	12	10
Interest on fixed deposit ... ..	7	10	0
Unclaimed poundages ... ..	4	19	10
	<hr/>		
	£827	12	4

The hospital has no endowment fund, but has a fixed deposit of £250 in the Commercial Bank, and the report for last year shows that the institution is in a satisfactory financial condition. It is said that the subscriptions are increasing, but a large part of the income is derived from entertainments given specially in aid of the hospital. The accounts do not call for any special comment, except that the amount expended on wines and spirits is somewhat large.

The committee has recently drafted new rules and regulations, based on the code of model rules for district hospitals prepared by the Chief Medical Officer to the Government.

The hospital is clean and well kept, but the buildings are neither up to date nor adequate to properly meet the requirements of the town and district.

#### GOULBURN HOSPITAL.

The report for 1898 is the 57th annual report of this hospital, which was founded in 1842. It was for several years located in temporary premises; but in 1849 was moved to a cottage specially built in the centre of the city. This was found to be too small to meet growing requirements, and in 1889 the present hospital—the foundation-stone of which was laid in 1887—was opened for the reception of patients.

The old cottage hospital was demolished ; but the site has never been sold, the trustees not having received what they considered an adequate offer for the property. It is now valued at about £1,500, but produces no revenue.

The new hospital is a two-storied brick building, standing in an elevated position to the southward of the city, on a block of land which is completely surrounded by public roads, and contains an area of upwards of 9 acres. The site is a very good one, and the neighbouring land is set apart for public parks, agricultural society's grounds, and other public purposes.

The hospital consists of a central administrative block with two wings, all of two-storeys ; of kitchen and offices and servants' quarters in a one-storied building at the back of the administrative block, and of detached laundry and mortuary.

The administrative block contains the Board-room, matron's-room, dispensary, store-rooms, &c., on the ground-floor, and quarters for the nurses on the upper storey. Of the two wings, one, that to the north, is set apart for ordinary hospital cases, and the other, to the south, which is smaller, is devoted entirely to the reception of cases of infectious diseases.

The hospital as a whole is substantially built ; but some of the work has not been well done, and there has been a want of attention to detail and finish. The sanitary and other arrangements, sinks, &c., which could not have been up-to-date when put in position, are now very much behind the times, and require alteration. These remarks apply also to the operating-room, the alteration and refitting of which is now engaging the attention of the committee, who are also aware of the shortcomings of the hospital in other respects.

The north wing contains 1 ward for men and 1 for women, 1 accident ward for men, and 3 private wards, and will accommodate 30 patients. The south wing is cut up into small rooms, and is not well designed ; it will accommodate altogether 16 patients, and in three rooms there is only 1 bed, so that these can be used as private wards when necessary. The total accommodation is, therefore, for 46 patients.

The site on which the buildings stand was a grant from the Crown, and the hospital has altogether cost in buildings the sum of £9,500, the principal items being as under, towards which the Government contributed £2,000,—

General wards	...	...	...	...	...	£6,800
Fever ward	...	...	...	...	...	1,900
Laundry	...	...	...	...	...	360
Mortuary	...	...	...	...	...	70
						<hr/> £9,130

The new hospital when opened had on it a large debt, partly owing to the inability to sell the old site for the sum at which it was valued, and it has been struggling on under this debt ever since it started.

At the close of 1898, this debt was reduced to £400, and has since been reduced by a further sum of £200. As the accounts show a credit balance of £1,037 14s. 3d. at the close of 1898, against which there was only the debt on the building of £400, there does not appear any reason why the remaining £200 should not be paid off at once. The committee might with advantage, after the extinction of the debt, undertake the much-needed improvements to the hospital fittings, and carry out some minor repairs now necessary.

The sums expended in building included a bequest from Mr. Steers of £1,244 and a sum of £866 raised by a bazaar. On the interest of these, and also on that of a bequest from the late Mr. James Chisholm, the Government is paying the subsidy in accordance with existing arrangements. Mr. James Chisholm's bequest was for the special purpose of providing tobacco and other luxuries for male patients, and the Committee, finding some difficulty in spending the interest, has allowed the sum of £74 1s. 10d. to accumulate.

The income of the hospital for 1898 was as follows:—

	£	s.	d.
Government subsidy ... ..	653	1	0
Special grant ... ..	100	0	0
Subscriptions, donations, and proceeds of entertainments ... ..	621	14	1
Paid by patients for maintenance ... ..	193	3	7
Fees for nurses' services ... ..	46	17	6
Rent of paddock (part of hospital area) ... ..	10	7	6
Unclaimed poundages... ..	3	19	10
	<hr/>		
	£1,629	3	6

The income of the hospital is said to be increasing; but the list of annual subscribers is still very small, and a large part of the income is derived from balls and other entertainments, and from Saturday and Sunday collections in Goulburn, Crookwell, Breadalbane, and other places in the neighbourhood.

The hospital property is vested in five trustees, of whom four have seats on the committee of the hospital.

The Board of management is composed as follows:—1 president, 1 vice-president, 1 hon. treasurer, 1 hon. secretary, and 12 members of committee. The usual meetings are held once a month, and special meetings are called when necessary. There are sub-committees for finance, building, and visiting, and on the latter, which meets once a week, and consists of the office-bearers and one member of the committee, the internal management of the hospital mainly rests.

The medical officers, two in number, are each paid £50 a year, and have not seats at the Board. They receive, with the permission of the committee, fees from patients admitted to the private wards, the amounts being fixed by arrangement between the patients and themselves.

The nursing staff consists of a matron at £70; one staff nurse at £40; and five nurses at a maximum of £20. For the first year, which is considered a probationary stage, the nurses receive £12 only, getting £20 in the second and subsequent years. On entering the service, they engage to stay two years; they are trained in the hospital, and, on leaving, are furnished with commendatory letters, though not with a special certificate. There is no special teaching by lectures, &c., and no examinations. The entire staff, matron included, has been trained in this manner at the hospital, and the arrangement cannot be considered satisfactory. The matron has no experience beyond the Goulburn Hospital, at which she has had about nine years' service, having commenced as probationer; and, though the hospital has worked smoothly under her management, and she is no doubt an admirable nurse and an estimable and devoted woman, the condition of the hospital in minor details shows a want of knowledge of hospital niceties and of administrative routine. During times of epidemic, when the wards for infectious cases are full, additional assistance is sometimes procured; and, when the number of occupied beds is small, the nurses are allowed to go and nurse cases in the city, the sums received—amounting to £46 17s. 6d. in 1898—going to the hospital funds. The average hours on duty for the nurses was eleven, from which two and a quarter hours were given up for meals. The quarters for the nurses are good and comfortable.

The total number of patients in 1897 was 298, and in 1898, 339. The average daily number resident for the latter year was 22.67. For this number the staff gives one nurse for about every three occupied beds. The south wing, set apart for infectious cases, was quite empty at the time of inspection, but was said to be very rarely in this condition. In 1898, 41 cases of typhoid, 18 of scarlet fever or scarlatina, 36 of measles, 5 of influenza, 2 of erysipelas, 1 of chicken-pox, were treated. In 1896 and 1897 the number of typhoid cases treated was 80 and 72 respectively, so that there was a considerable diminution in the number in 1898. In 1897, 39, and in 1898, 47 out-patients were treated.

The Infectious Diseases Ward is a special feature of the hospital, and is, as a rule, largely used, as will be seen by the figures above given. The inhabitants of the city and district avail themselves of its advantages, and paying patients are received into either the general or private wards. The

The cost per bed in 1897 was £58 2s., and in 1898, £56 5s. The sums received from patients towards maintenance in 1897 was £207, and in 1898, £193. In the latter year the number of paying patients was 63, or 20 per cent. of the total number. The sums received from patients in the general wards range from a donation of 2s. to a weekly payment of one guinea; and the charge for private wards is three guineas a week, the fees to the medical officers being an additional charge. The sums paid by patients in 1898 were as follows:—

							£	s.	d.
1	contributed	2s.	...	...	...	...	0	2	0
2	"	11s. 6d....	...	...	...	...	0	11	6
4	"	10s. each	...	...	...	...	2	0	0
1	"	10s. 5d....	...	...	...	...	0	10	5
3	"	15s., 16s. 8d., and 19s.	...	...	...	...	2	10	8
52	"	sums from £1 to £3 3s. a week	...	...	...	...	187	9	0
							£193 3 7		

All cases sent by the Government Medical Officer or the police are at once admitted, and, if found suitable, are passed on, when able to travel, to the asylums for the infirm and destitute.

The districts from which the patients are received are shown in the annual report as follows:—

Goulburn	...	...	...	...	...	...	...	196
Crookwell	...	...	...	...	...	...	...	12
Wheeo	...	...	...	...	...	...	...	9
Sydney	...	...	...	...	...	...	...	10
Tarago	...	...	...	...	...	...	...	8
Towrang	...	...	...	...	...	...	...	7
Bungendore	...	...	...	...	...	...	...	6
Windellima	...	...	...	...	...	...	...	5
Bungonia	...	...	...	...	...	...	...	4
Captain's Flat	...	...	...	...	...	...	...	4
Spring Valley and Currawang	...	...	...	...	...	...	...	3
Yarra, Mummell, Yass, Marulan, Taralga, Golspic, and Breadalbane	...	...	...	...	...	...	...	3 each.
Barber's Creek, Melbourne, Tarlo, Binda, Gunning, and Laggan...	...	...	...	...	...	...	...	2 "
Tiranna, Cooma, Boxer's Creek, Millbank, Green Flat, Kingsdale, Lake Bathurst, Parramatta, Orange, Springfield, Inveralochy, Sutton Forest, Parksbourne, Kenmore, Boro, Brisbane Grove, Woodhouselee, Wingello, Bannaby, Harden. Merrill, and Tuena	...	...	...	...	...	...	...	1 each.

By far the greater number are from the Goulburn district and its neighbourhood, and it will be seen that the hospital serves a very considerable area. The nearest hospitals are at Yass, Qucanbeyan, Braidwood, and Bowral.

The patients are not admitted on subscribers' orders, but the admission rests entirely with the medical officers, who certify to the medical necessities of the case. Inquiries as to means are made; but the honorary secretary reports that cases of imposition are infrequent, and states that imposition is more easy to detect in country districts than in large cities. The out-patients are mainly casualties.

The wards of the hospital were well warmed, neat in appearance, and comfortable. The bedding was good, clean, and sufficient, and the whole place homelike; but there was a noticeable want of smartness, cleanliness, and attention to details in lavatories, sculleries, and other places—and indeed in what might be called the accessories of the place generally.

The defective sinks, lavatories, basins, and other sanitary fittings, should be replaced by other and newer forms more suited for hospital use, the hot-water system should be enlarged so as to be more generally available, and the whole of the Infectious Diseases Wing would be the better for repainting, new linoleum, and general renovation.

## KIAMA COTTAGE HOSPITAL.

This hospital was built in 1887 on plans originally drafted by Dr. Ashburton Thompson; it stands on about  $2\frac{1}{2}$  acres of ground on a hill overlooking the town of Kiama, and commanding fine views of the sea and the adjoining country.

The appearance of the building, though walls and roof are all of corrugated iron, is decidedly pleasing. The walls consist of two skins of iron with the wooden framework between them, and by an ingenious arrangement the air passes between the two skins, and the rooms are kept cool in summer. The structure is very favourably reported on by those in charge of it. It has proved water-tight in severe gales and cool in summer, and the only complaint made is that it is somewhat cold in winter. The iron stoves with which the wards were originally furnished have lately been replaced by open fireplaces built into new and substantial brick chimney breasts, with the result of making the wards much more comfortable. The building generally, though erected twelve years ago, shows no signs of wear, and the small amount of outside woodwork has been kept well painted. It cost about £1,600, which is at the rate of £160 per bed.

The accommodation consists of two wards, one holding six and the other four beds, one private ward (not used for several years), quarters for the staff, a waiting and operating room, kitchen, laundry, and offices. The infectious diseases hut and the mortuary are detached buildings. The buildings generally are sufficient, and are excellently kept, but the room for cases of infectious diseases, though of itself without objection, needs a nurses' room, closet, and other accessories, and these should be supplied without delay, especially as the cost will not be large.

The hospital is governed by a committee of seventeen members elected annually, and meeting once a month for the transaction of business. The officers are a president, a treasurer, and a secretary. There are two visiting medical officers who receive an honorarium of £40 a year each. The staff consists of a matron, who has been in charge ever since the hospital was started, and who receives £52 a year; a nurse (who is not specially trained), a wardman, and a cook, each of whom receives £26 a year, with rations and quarters. The matron considers the staff sufficient, and states that extra assistance is sometimes obtained when there are bad cases.

The daily average number of patients in the hospital in 1898 was four, and for the last three or four years there has not been much pressure on the accommodation, which has in fact been ample for the neighbourhood. There is no definite district from which the hospital patients are drawn, but patients come from Ulladulla, Nowra, Berry, Robertson, Kangaroo Valley, and as far north as the Lake Illawarra. When the railway to Kiama was in course of construction the number of patients in the hospital was much larger than at present, beds being made up on the floor, and the total sometimes numbering eighteen. The number for the year 1898 was sixty-two, forty-six males and sixteen females, and the annual cost of maintenance per occupied bed was £90 6s. This cost is high, and depends on the fact that the average number in hospital was so small. The cost per patient was £5 16s. 6d.

No form of disease is refused, and infectious cases are taken when admission is sought, though so far the number sent has been few.

Payments from patients are received up to £1 1s. a week in the general wards, and the amount received last year from this source was £26 6s. 6d. The sources of revenue in 1898 were as follows:—

	£	s.	d.
Interest on invested funds ... ..	46	14	5
Subscriptions and donations ... ..	132	7	4
Payments by patients ... ..	26	6	6
Government subsidy on basis of year 1897	120	14	9
	<hr/>		
	£326	3	0

No account of the investment fund is published, and the source from which it has been obtained is not shown in the annual report as it should be, but we have been informed

informed by the honorary secretary that £1,141 8s. 11d. is invested in Bank and Government securities. This amount is the accumulation of savings in past years, with the exception of £150 received as a bequest from the late Mr. Thos. Walker.

The hospital is supplied with rain water from the roof of the buildings, which is caught in underground tanks. Earth closets, emptied by the municipal authorities, are in use throughout the buildings, and are kept in excellent order.

The general management of the hospital appears to be satisfactory; the wards are cheerful and comfortable, the lavatories and other parts are all well kept, and the economic details are the subject of careful attention on the part of the matron.

#### LITHGOW DISTRICT HOSPITAL.

This hospital was built in 1895, and was officially opened by the Premier, the Right Hon. G. H. Reid, on the 7th May, 1896. It is constructed partly of brick and partly of wood and galvanised iron. The main building comprises matron's sitting-room and bed-room, male ward, operating-room, female ward, bath-rooms, earth-closets, &c. The matron's sitting-room is also used for Board meetings and for other administrative purposes. The male ward contains four beds and the female ward three, one of which is an emergency bed. There are no private wards or cots for children.

Opening out of the wards, which are located in separate wings on opposite sides of the building, are the bath-rooms and earth-closets. The drainage from the male patients' bath-room and latrine is taken through the hospital grounds in an earthenware pipe and discharged on a partially-formed street in front of the institution. The drainage from the bath-room in the female ward is discharged on the surface within the hospital grounds, but it is proposed to extend the pipes so as to discharge on some unoccupied land outside the fence.

Connected with the main building by a covered way are a kitchen, servant's room (opening out of the kitchen), and laundry, as an addition to which a nurse's room has been erected. These structures are of wood and galvanised iron. The mortuary, built of the same materials, with a cement floor, is completely detached from the main building.

The land on which the hospital stands cost £320. It comprises 3 acres 17½ perches on the hill side, not far from the centre of the town, and has a north-easterly outlook.

The cost of the buildings was £1,375, or an average of £137 per bed.

The operating-room is situated in the main building, next to the female ward, and is furnished with a complete set of surgical instruments, which cost £150.

The general committee consists of twelve elected members, and, in addition, the three medical officers and the three trustees are *ex-officio* members. The number would thus, under ordinary circumstances, be eighteen, but as one of the medical officers is also a trustee, the committee at present consists of seventeen members.

The general committee elect from among themselves a house committee, who see to whatever is required for the maintenance of the institution, and a visiting committee, whose duties are to see that the patients are well attended to, and to investigate complaints.

There are three medical officers, all of whom have seats on the Board. The present arrangement is that half the fees that are paid by the patients to the hospital are divided amongst the doctors equally. If £100 were received from patients, £50 would be apportioned equally to the three doctors. It is proposed, however, to alter this arrangement at an early date.

The matron is a certificated nurse, with considerable hospital experience, who receives a salary of £52 a year, and she is assisted by one nurse, whose salary is £26 a year.

There is no wardsmen, and the matron and nurse are, therefore, at times called on to perform duties which are outside the range of nurses' work, and should be done by a man.

Cases

Cases of infectious disease have up to to the present been treated in the general wards without any untoward results, but there is now in course of erection an infectious diseases ward detached from the main building. When completed, the ward will contain two rooms with a nurse's room between. In front there will be a spacious verandah. Each of the rooms will have space for two beds. The contract price is £232, but when furnished the committee estimate that the ward will have cost them £250.

When visited there were five patients in the hospital—three men and two women. The average length of time the patients remain in the hospital was, in 1898, about 20 days. During 1897 there were 53 patients, and during 1898, 68. The average daily number of patients in the hospital in 1897 was 3·5, and the same in 1898.

The hospital does not treat out-patients. The in-patients, or their friends for them, pay what they can afford. As low as 5s. a week is taken, but not often, as such patients prefer to give a donation. Inquiries as to the means of patients are made in the first instance by the matron, and are followed up if necessary by the committee, who, being business men of the town, generally know the circumstances of the patients.

There is a fair average of accident cases, but the majority of the cases treated at this hospital are fevers and cases of acute illness. The number of typhoid cases has been less during the last year or two than it formerly was.

Urgent cases are admitted to the hospital by the matron, or by one of the medical officers, or by a member of the committee. Other cases are recommended by one of the members of the committee to one of the medical officers, who certifies to the medical necessities of the case. There is a form for admission to be signed by the medical officer, a member of the committee, and the secretary.

The cost per bed for 1897 was £95, and for 1898 £91 13s.

The buildings are free from debt, and the committee has about enough money in hand to pay for the new ward.

There is an endowment fund of about £1,200, composed of two legacies for £1,000 and £100 respectively, and £98 which has been collected specially towards this fund. Mrs. Brown, who left the £1,000, vested it in her trustees, the interest to be paid to the hospital by them quarterly. The other £200 is vested in trustees appointed by the hospital, and lodged in the Savings Bank.

The hospital also has £132 in stock of the E.S. and A. Bank. There is a current account surplus of £200 banked until it is needed to pay for the infectious diseases ward.

The sources of income for 1898 were :—

	£	s.	d.
Government subsidy	208	15	8
Public subscriptions	33	12	0
Public donations	246	13	2
Patients' payments	54	15	0
Interest	65	8	0
	<u>609</u>	<u>3</u>	<u>10</u>

Collections are taken up at the mines on Hospital Saturday.

Patients have been received from Jenolan Caves, Oberon, Portland, Cullen Bullen, Capertee, Hartley, Sheather's Hill, Rydal, Mount Victoria, Blackheath, and Wentworth Falls. The two nearest hospitals are Bathurst, on the west, and Penrith, on the east. The Lithgow Hospital is said to serve the whole district between Bathurst, Mudgee, and Penrith. The greatest distance a patient has to travel to the hospital is 40 or 50 miles.

The water supply of the hospital is abundant and good, and the arrangements for the disposal of excreta satisfactory. Some change in the arrangements with regard to slop-water is, however, necessary.

## MAITLAND HOSPITAL.

The hospital was for several years located in a house in the town of Maitland, but, in 1850 or 1851, it was moved to its present site which is on rising ground near the road leading out of the town to the north. The main building was, so far as we could gather, erected for the special purpose and is a plain, substantial, old-fashioned brick structure, with verandah and balcony. There are several outbuildings most of which are of more modern construction. An extensive view is obtained from the hospital over the town of Maitland and surrounding level country to the rising land in the distance. The area of the site was stated to be between 3 and 4 acres, but its exact extent appeared to be a matter of doubt.

In the main building are three large wards—two for men and one for women, one private ward, and also one ward used for special cases requiring isolation, which, at the time of our visit, contained a case of scarlet fever. The total accommodation is for thirty-seven beds. It is probably almost impossible, owing to the length of time which has elapsed since the main building was erected, to ascertain the cost of this, or to ascertain the cost per bed. The remainder of this building is occupied as board-room, matron's and nurses' quarters, dispensary, operating-room and various store-rooms and offices.

The structure and most of the fittings are decidedly antiquated, but the sanitary arrangements, which appear to have received special attention about nine or ten years ago, are fairly good, and the drainage is disposed of on the hospital grounds without offence or danger. The wards, somewhat gloomy owing to the windows being small, badly placed, and at too great a height from the floor, are clean and well kept. The nurses' rooms, comfortable as far as they go, do not afford nearly sufficient accommodation for the staff, so that some of the nurses sleep in the rooms built for cases of infectious diseases; and the operating room and its fittings are neither suitable nor adequate. The kitchen, scullery, servants' quarters, laundry, &c., are in a range of buildings at the rear of the hospital, connected by a covered way. The mortuary is a distinct edifice too prominently placed in being exposed to view from the verandahs on which patients spend some of their time in fine weather.

The wards for infectious diseases consist of a small group of buildings at the side of the hospital which are found to be very useful, but which, from defective construction, are almost intolerably hot in the summer.

The hospital is governed by a committee consisting of a president, vice-president, hon. treasurer, and eleven members, two out of the three trustees being included in the latter number. This committee meets nominally once a fortnight, but the report for 1898 shows that meetings not infrequently lapsed for want of a quorum. The house or executive committee meets once a fortnight and is composed of the officers—president, vice-president, and hon. treasurer, and three members of the committee, who are changed every three months. There appears to have been only one medical officer during 1898, but there are now four, of whom one is a member of the committee. The sum of £100 a year is divided among the medical officers, instead of, as was explained, supplying them with a dispenser; some of the dispensing, however, is done by the matron. The secretary is a paid officer receiving £40 a year, but he does not appear to have any intimate acquaintance with the affairs of the hospital, and the office would, perhaps, be better filled, as is more usual in institutions of this size and character, by an hon. officer who is a member of the committee, and takes a personal interest in the affairs of the institution.

The nursing staff consists of a matron, at £100 a year; three trained nurses, at £50 a year each; and two probationers, at £20 a year each. These salaries are somewhat high in comparison with those paid in hospitals of like size and character, and, moreover, £45 was paid last year as a bonus to the matron and nurses—a very unusual proceeding. The sum of £70 was paid in 1898 for special nurses engaged to attend on special cases, infectious and otherwise. No training of the probationers, except in practical work, is attempted, and no certificates of proficiency are given to them. It is expected that the probationers now employed will enter for training at one of the metropolitan hospitals. The other members of the staff are a wardsman, cook, laundress, housemaid, and gardener. All laundry work is done in the hospital; the laundry is, however, small, and neither well arranged or fitted.

The



The number of patients treated in 1897 was 322, the average daily number was twenty-two, and the cost per bed (including the treatment of outpatients) £72 18s. The number in 1898 was 407, the average daily number 23, and the cost per bed £84 8s.

No class of cases except venereal diseases is refused. The report states that 85 cases of typhoid were treated, and that 39 operations—18 of importance and 21 of a minor order, were performed in 1898.

There is no table in the report giving a classification, &c., of diseases treated, and no statement as to the number of cases of infectious diseases, though the latter would be especially interesting as showing the use made of the buildings for infectious cases, and the necessity for special nurses. At the hospital we were unable to obtain any exact information on these points. There is no special provision for the treatment of out-patients, but 118 (including casualty cases) were attended to in 1898.

Subscribers of one guinea and upwards are entitled to give a certain number of orders for the admission of patients, who are received if considered by the Medical Officer fit subjects for treatment. Inquiry, however, seemed to show that some of the cases admitted, especially when there was no pressure on the hospital accommodation, were of a somewhat trivial character. There were no complaints of undue pressure on the hospital space, though the matron stated that occasionally the number of patients was somewhat in excess of the bed accommodation. The average daily number resident would not appear to indicate that this occurrence was frequent.

The financial position of the hospital is as follows:—It has an endowment fund of £8,571, invested in the Bank of New South Wales, the Commercial Banking Company of Sydney, and the Savings Bank, from which, in 1898, £298 4s. 8d. was received as interest, and that year closed with a credit balance in the current account of £222 19s. 4d.

The receipts in 1898 were as follows:—

	£	s.	d.
Ambulance fees ... ..	17	14	6
Subscriptions and donations ... ..	270	18	0
From entertainments, balls, &c. (net) ... ..	76	17	4
Payments by patients ... ..	143	17	9
Government subsidies ... ..	305	2	0
Interest on endowment ... ..	298	4	8
Minor receipts ... ..	0	15	0
Special Government grant... ..	250	0	0
Loan from trustees ... ..	200	0	0
	<hr/>		
	£1,623	9	3

The amount of £200 was a sum drawn from the invested funds.

The special Government grant does not really appear to have been for any special purpose, and was carried to the current account. It does not appear that the loan from the trustees has been repaid, so that the hospital is not in quite so good a position financially as might be inferred from the fact of there being a balance of £222 at credit of the current account.

It is somewhat remarkable that no general balance-sheet, from which the financial position of the hospital could be seen at a glance, is published in the annual report, and that there is no mention of the sum to credit of the endowment fund. This fund is in the hands of three Trustees who are elected annually. It was formed about twenty-five years ago, and the amounts which have been placed to its credit are all bequests which have been handed to the hospital with the condition that they shall be invested and the interest thereon only expended.

The expenditure for 1898 calls for no special comment, except in respect to the sum of £97 13s. 6d. for wines, spirits, &c., which appears very high, and is only partly explained by the large number of typhoid cases.

The

The subscriptions and donations are numerous, but a number obtained by collectors, chiefly ladies, are of small amounts.

The members of the hospital committee do not appear to have worked altogether harmoniously, and there have been some difficulties in regard to the medical staff, but it is hoped that with the election of the committee for 1899, and the appointment of four medical practitioners on the medical staff, these difficulties have, in the main, disappeared, and that the energies of the committee will now be directed in the necessary direction of improving the arrangements and remedying the defects of the hospital.

#### MUDGEES DISTRICT HOSPITAL.

This hospital was established about the year 1854, and was for some twenty years carried on in a cottage in the town. In 1874 the present hospital was built on plans supervised by the late Sir Alfred Roberts. The Government gave the site, which has since been enlarged by subsequent gifts from the Government until the area is now about 5 acres.

The cost of the hospital buildings, including an isolated cottage for infectious diseases, has been £3,300, and, as the accommodation is for twenty-six beds, it has cost £127 per bed.

The main building is of brick in two storeys, and the cottage for infectious diseases is a simple structure, with an outer and inner skin of iron on wooden frame work. Owing to some defect in construction, this building is very hot in summer.

The main building contains two wards, one for men and one for women, each with ten beds; two private wards, one containing two and the other a single bed; an operating-room and rooms for the matron and nurses, besides an office and dispensary store, bathrooms, closets, &c. At the back, and connected by a covered way, are the kitchen, laundry, and servants' rooms. The store-room and mortuary are detached buildings.

The hospital is not well built, and the details of the lavatory arrangements, baths, closets, &c., are old-fashioned and not satisfactory. The wards and operating-room are the best part of the building; but the equipment of the former, as regards bedsteads, bedding, and other matters, leave something to be desired and require some attention. There is no hot-water supply in the bath-rooms, operating theatre, or wards, and the drainage requires some attention. The committee is, however, aware of some of the shortcomings, and is proposing to remedy them at an early date. The infectious diseases cottage, which provides accommodation for three cases, is complete in itself, having nurses' room and all necessary accessories. The whole hospital is so planned as to allow of extension.

The committee consists of twenty-four members, from whom a president, vice-president, and honorary treasurer are elected, and the large number is as usual considered desirable as spreading the interest in the hospital over a wide field. The three trustees are members of the committee. The committee meets once a month, and there is a visiting committee which has power to act in details, and consists of two members, one of whom retires each month, so that each member really serves for two months. The visiting committee meets once a week.

There is only one medical officer, who is paid £50 a year, but medical assistance is called in when necessary to give chloroform or assist at operations, and for these services about £40 is paid annually. The arrangement does not seem a good one, and the hospital would, perhaps, be better served by two medical officers, acting in conjunction; but though the matter has repeatedly been under consideration, the committee has not seen its way to alter the present arrangement. The secretary is a paid officer receiving £25 a year.

The nursing staff consists of a matron at £70; a trained nurse at £35, who is chiefly engaged on night duty, and a wardman at £52; and the other staff is made up of a maid, and a cook and laundress. The nursing staff is small, considering the number of patients. In 1897, 164 patients were treated, and the average daily number was 12; and in 1898, 193 patients were treated, and the daily average number was 14.8. The cost per bed was £59 11s. in the former, and £51 16s. in the latter year.

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By the rules incurable cases, parturient women, lunacy cases, small-pox, itch and confirmed consumptives are excluded; but, practically, cases of all kinds are received.

The infectious disease cases in 1898 were as follows:—Erysipelas, 1; measles, 10; and diphtheria, 2. Cases sent by the Government Medical Officer are at once received, and other cases are admitted on a subscriber's order, countersigned by the Medical Officer.

Paying patients are charged partly according to their means and partly according to the accommodation afforded, and in 1898 five paid 6s. a week, three from 5s. to 10s., twenty-seven 10s., four 20s., ten 21s., and two 42s. For the private ward, containing two beds, a charge of 21s. is made, and for that containing one bed 42s. The amount received from patients in 1897 was £121 17s. 10d., and in 1898 £106 14s. 7d.

The income of the hospital in 1898 was as follows:—

Subscriptions . . . . .	£174	9	5
Donations and entertainments . . . . .	190	0	3
Patients' fees . . . . .	106	14	7
Government subsidy, half-year . . . . .	90	4	9

The year closed with a debit balance of £25 3s., but the Government subsidy for the last half-year was owing, and a special grant of £100 which had been allotted was not received before the accounts were made up, so that the hospital is not in debt.

There is no endowment fund and no accumulations, but it is stated that there is no great difficulty in maintaining the hospital, and that the inhabitants of the district respond willingly to calls for the hospital when appealed to, and that considerable interest is taken in its success and welfare. The approximate population of the district served by the hospital is about 7,000, but a number of the patients come from other districts. The nearest hospital is at Gulgong, 20 miles away.

The Annual Report is not very well prepared, and does not show medical and other details which might advantageously be given.

The hospital is not as well kept in some respects as it might be, and there is a want of attention to some minor details; but it is doing good work, and will, no doubt, increase in efficiency.

#### NEWCASTLE HOSPITAL.

The hospital at Newcastle was originally a military hospital belonging to the Imperial Government, and it stood on part of the land occupied by the present building. In 1845 the military hospital was given up to the citizens of Newcastle on the understanding that patients belonging to the military forces were to be admitted on certain conditions; and in 1865 the old building, being unfit for the work, was demolished, and part of the present brick structure erected to take its place. Various additions have from time to time been made, and in 1887 the original plan was completed by the addition of the Hannell Wing at a cost of somewhat over £4,000. The total cost of building the present hospital from its inception to the present date is estimated at about £14,000. The site is a grant from the Crown, and is about 2 acres in area. The hospital stands close to the sea; it receives the full force and freshness of the sea-breeze, and in gales from the east and south-east the position is much exposed. The site is, however, reported on by the medical officers as very healthy, and operation cases are said to do remarkably well in the hospital, notwithstanding the defects to be presently noted and the fact that for years past the municipal authorities have had an extensive rubbish-tip very close to it.

The hospital was faulty in its design in the first instance; it has been patched and added to to meet a growing need for accommodation, and now consists of an aggregation of small and ill-arranged wards, connected by numerous passages. The whole place is difficult to work, and is not equal to the growing needs of the population of the city and surrounding district. In ten years, notwithstanding the establishment in the meantime of the Wallsend hospital with its twenty-two beds, which takes

takes patients from a large district formerly served by the Newcastle hospital, the number of patients and the number of operations have very decidedly increased, as is shown by the following figures :—In 1888 there were 502 in-patients, 33 operations, and 500 attendances of out-patients, and in 1898, 835 in-patients, 291 operations, and 3,104 attendances of out-patients.

The wards for male patients are six in number, and give space for thirty-eight beds, and those for females are four in number, with an accommodation, inclusive of cots for children, of twenty-one beds. In addition, there are isolation rooms, which will accommodate six patients, making up the total number of beds to sixty-five.

The quarters for the resident staff are good, and occupy a considerable part of the total accommodation. The operating room is very decidedly wanting in the necessary arrangements and fittings, and the fittings of the hospital generally, except in some of the newer wards, are old and not altogether satisfactory. The rooms for cases of infectious diseases are detached, and, except as to details, suited for this purpose, but the foundations of some of them appear insecure, and the walls are cracked. The whole of the buildings, owing to the salt atmosphere, the smoke, coal-dust, etc., have a somewhat shabby appearance, but experience has shown that it is almost impossible, without a very large expenditure of labour, paint, &c., to keep buildings in Newcastle in a smart condition.

The hospital is governed by a committee of twenty members with a president and vice-president. Neither the treasurer, secretary, trustees, nor medical officers are members. The Committee meets once a month, and the internal management rests with a house committee of seven members, who are elected quarterly, some of the members continuing in office for more than one quarter so as to ensure continuity of action. The house committee meets once a week. The hon. medical staff consists of eight members, and the paid officers are a medical superintendent at £200 a year (with board and residence); a secretary, who is non-resident, at £150 a year, with 2½ per cent. on all collections received for the registration and maintenance of patients; and a matron at £100 a year (with board and residence). The nursing staff, in addition to the matron, consists of one head nurse at £62, three senior nurses at £41, and ten junior nurses and probationers with salaries ranging from £35 to £17 10s. a year. The remaining members of the staff are a wardman, assistant wardman and porter, cook, two housemaids, and two laundresses. The nurses are trained at the hospital by lectures and demonstrations by the medical officers and matron, and are examined and receive certificates in due course. All the laundry work is done at the hospital.

The number of in-patients in 1897 was 801, and in 1898, 835—596 males and 239 females, and the average daily number resident was 45·4 in 1897, and 47·4 in 1898. No class of cases is refused, and 13 cases of measles, 2 of scarlet fever, 22 of diphtheria, and 58 cases of typhoid were received in 1898, whilst the number of accidents was 148. The cases are largely drawn from the colliery and shipping population, but the hospital has much more the character of a metropolitan than a country or district institution, its situation in a large sea-port, and what is practically a railway terminus, bringing to it a large number of patients who have no local claim on its charity. The cost per bed was £53 8s. in 1897, and £59 6s. in 1898.

The subscribers receive one order for the admission of patients for each £1 subscribed up to £5, but the orders are not much used, and the patients are mostly admitted on the advice of the medical officers. The payments towards maintenance range from 2s. 6d. to 28s. a week in the general wards, and 10s. a day is charged for patients in a private ward, the latter patients being for the most part captains of ships in port. It appears that the inquiries as to the means of patients are somewhat more stringent now than was the case until lately, and the secretary is encouraged in undertaking this duty by a percentage of two and a half on all collections from patients. The number of paying patients in 1898 was 324, as against 511 admitted free.

The out-patients are seen daily by the medical superintendent at a fixed hour, and in 1898 the number of attendances was 3,104, being decidedly in excess of any previous year. The number of individual out-patients was 880. A system of registration has now been in force for eighteen months under which a fee of 1s. is charged

charged, which all who are able are called on to pay, and which entitles them to attend for two months, after which an additional fee is required. Under this system the number of out-patients has been found to increase.

The total collections from in- and out-patients under the new system in 1898 was £1,180 Gs. 3d., and was the largest sum ever received from this source by some £160, and £307 higher than the receipts in 1897. A considerable part, being nearly one-half of this sum, is derived from payments from ships in port, or the agents thereof, for the maintenance of sick seamen, the charge being 4s. a day.

A number of left, stranded, and run-away seamen find their way into the hospital and are a charge on its charity, and on representation being made to the Government, a sum of £300 as a special grant was given to the hospital to meet the cost of treatment of such cases in the past. No record, however, appears to have been kept of the exact number of these cases treated. From 1st July, 1899, a new system in regard to these cases will come into operation, and on production of certificates from the Shipping-master that the patients are stranded seamen, and from the Government Medical Officer of Newcastle that they are fit cases for hospital treatment, the Government will, in future, pay the sum of 3s. daily for their maintenance in hospital.

The financial position of the hospital is as follows:—The building and land are without encumbrance and are vested in five trustees. The only endowment fund is £200 left by the late Mr. Thomas Walker. There was at the end of 1898 a balance in the Savings Bank of £122, and a balance at credit of the current account of £480.

The income in 1898 was as follows:—

	£	s.	d.
Subscriptions and donations ... ..	918	18	11
Fees of patients ... ..	1,180	6	3
Government subsidy ... ..	832	3	7
Special Government Grant ... ..	500	0	0
Interest on deposit ... ..	8	0	0
Miscellaneous receipts ... ..	5	5	0
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	£3,444	13	9

The subscriptions are stated not to be increasing, and in 1898 they only amounted to about £613, the remainder of the amount shown under subscriptions and donations being made up of sums specially obtained from entertainments, &c., and from the Hospital Saturday Fund. The amount of subscriptions appears to be small considering the size and population of the district immediately served by the hospital.

The hospital is no doubt doing a very useful work under difficulties, and these the committee seems to fully recognise. It has been decided to call for competitive plans from architects, either for a new hospital for 150 beds on the present site, or for such enlargement and alteration of the existing structure as will give accommodation for a total of 150 beds.

#### ORANGE HOSPITAL.

This hospital is a brick building, part of which was erected about thirty years ago, when the institution was established, and the remainder about eighteen years since. It stands on about  $1\frac{1}{2}$  acre of land, which was given by the Government. The total cost of the building has been about £2,800. The number of beds is 29, and of these 21 are set apart for ordinary cases—13 for males and 8 for females, and 8 are used for cases of infectious diseases and other cases requiring isolation. There are no private wards. The administrative buildings, kitchen, &c., are very small, defective, and badly fitted; and the laundry, which is an iron shed, is inadequate for its purpose. The operating-room is a well-lighted and fair-sized apartment. The nurses' quarters are on the whole, satisfactory, but the room for the servants, though of sufficient size, was in an untidy and unsatisfactory state. There is a mortuary removed some little distance from the hospital.

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The committee of management consists of fifteen members, but it appears that the president and vice-presidents are elected directly by the subscribers, and not by the members of the committee amongst themselves. This committee meets once a month. There is also a house committee which meets once a week, being comprised of two members of the general committee, who act for a month in rotation, with the president as an *ex-officio* member for the whole year. There are two trustees, one of whom is a member of the committee, and two medical officers, each paid a salary of £40 a year. The secretary is also a paid officer, and receives the same rate of salary. The nursing staff consists of a matron, who was trained at the Sydney Hospital, and who receives £75 a year, and three nurses, who receive £36 a year each. Neither of the latter is a certificated nurse, and it appears advisable in a hospital of this size that one at least of the nurses should hold a certificate, as she should be competent to take the matron's place during her absence. There is no special attempt at teaching the nurses, and we find that two of the existing staff have had no experience of nursing beyond what they have gained at the Orange hospital. There is a wardsman, who receives £35 a year, and the remaining members of the staff are a kitchen-maid, housemaid, laundress, and messenger. No cook is employed, as the cooking is done by the kitchen-maid, under the supervision and with the help of the matron, an arrangement which is clearly unsatisfactory.

All classes of cases are admitted, some directly by the medical officers, others under orders given by subscribers, and with the latter a certificate is required in each instance from the medical officer that the patient is a fit subject for hospital treatment. All cases sent by the Government Medical Officer or by the police are admitted direct. The number of patients treated in 1897 was 313, and the average daily number 16·3. The number in 1898 was 332, and the daily average number 17. The cost per bed for 1897 was £62 18s., and for 1898, £54 15s. There are no out-patients. The sum received from patients during 1898 was £75 0s. 11d., and inquiries showed that this was made up of amounts varying from under 5s. to 30s. a week, but the latter amount had only been received in a few instances.

The income of the hospital for 1898 was as follows :—

	£	s.	d.
Donations and subscriptions	305	11	9
Proceeds of entertainments and Hospital Saturday collections	198	4	10
From patients	75	0	11
Government subsidy	497	4	11
	£1,076	2	5

The hospital has no endowment fund, and the current account shows a debit balance of £217 0s. 3d. at the end of last year. The items of expenditure in 1898 call for no special comment, except that £15 6s. 11d. appears to have been paid for interest.

Water is laid on to the hospital from the town supply, and is connected with the bathrooms and other places where required, but there is no hot-water supply in either the bathrooms, wards, or sinks, where it is clearly necessary, considering the climate in winter.

The closets are on the earth system, and the night-soil is burned in an incinerator of simple construction on the grounds of the hospital without apparently any offence.

The hospital is, on the whole, clean, but there is a want of attention to minor details, and the bedding and other necessaries are not as satisfactory in several particulars as could be desired.

We have no record for 1898 of the districts from which patients came, but of the total number of cases admitted during 1897, 194, or 66 per cent., came from Orange and the immediate district; and 63, or 21 per cent., were travellers; 34, or 11 per cent., appear to have come from other districts.

The committee brought specially under our notice the necessity for wards for infectious cases, the rooms now used for this purpose not being by any means satisfactory, as they are in the main building of the hospital, and do not provide for the necessary isolation.

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We gather that the management of the hospital is not working altogether without friction, owing to some differences of opinion on the part of members of the committee and the medical officers with regard to the qualifications and capabilities of the matron.

#### PARRAMATTA DISTRICT HOSPITAL.

This institution was first started by the Imperial Government in the early days of the Colony as a Civil and Military Hospital; and in 1849 the buildings, with 12 acres of land, were handed over to the inhabitants of the town for hospital purposes and have been so used ever since.

The site is a good one. It is in the centre of the town and yet in an open situation, with an outlook over the Park; but above half the land is liable to flood.

The main building is the original structure built many years ago. The rooms in it are gloomy, wanting in height, and not suitable for hospital wards. Constant expense is incurred for repairs, and it is very difficult to keep the building free from vermin. About sixteen years ago new kitchens, laundry, and stores were erected, and about two years since two new wards, one for men and one for women, were thrown out at the back of the main building as the first part of a plan for the complete rebuilding of the hospital. At the same time a small but well arranged detached cottage for cases of infectious disease was built. The Board-room and offices of the hospital, and also the operating-room, are detached, but connected by a covered-way, and the mortuary is a substantial isolated structure. On the hospital estate is a cottage, which is let at £24 a year, and also a small building in which the gardener of the hospital resides. The nurses and staff are lodged in the upper floor of the main building in cubicles which are neither light nor well ventilated.

There is, of course, no record of the cost of the original structure, but the two new wards and the cottage for infectious diseases are stated to have been built for £1,200; and if so, the hospital authorities have obtained good value for this outlay.

The hospital is governed by a committee of fifteen members, from whom the president, vice-presidents, and hon. treasurer are elected, and it meets once a month.

The house committee, charged with the internal administration, is composed of eight members, and appears from the annual report to meet about twice a month or oftener.

The medical staff is unpaid and consists of one consulting and three honorary medical officers, and the three latter are among the elected members of the committee.

The secretary is not a member of the committee, and receives an honorarium of £20 a year.

The nursing staff consists of a matron paid £65 a year; two nurses—one paid £40, and one £30; and four probationers who receive £15 in their first, and £25 in their second year of service. The probationary period only extends over two years, and during that time practical instruction is given by the matron and special teaching by the medical officers, and at the end the nurses are examined and receive certificates if found competent. It cannot, however, be considered that either the teaching or the experience gained are equivalent to that acquired after three years service in one of the large metropolitan hospitals, and it is impossible to regard with favour a system which turns out a class of nurses who are likely to be of a somewhat inferior grade to those trained on broader lines. The remaining staff consists of a wardman, a gardener, a cook, a housemaid and a laundress. On the whole, the staff is a somewhat full one; but it serves also the isolated cottage for infectious diseases, in which, though the patients may be few, constant supervision is necessary. The hospital has accommodation for twenty-four ordinary and four infectious cases, and the following return shows the total number and the daily average number resident for the last two years:—

					Total Number Treated.	Daily Average Number Resident.
1897	...	...	...	...	285	18.8
1898	...	...	...	...	280	19.9

The cost per bed in 1897 was, after deducting the cost of new buildings, £72 7s., and in 1898 it was £72 10s., both of which may be considered somewhat high. The isolated ward, as requiring extra nurses, &c., no doubt adds to the general cost; but it is carrying out important work, and provided for fifteen cases of diphtheria, twelve of scarlet fever, and ten of measles, in 1898. Besides these, fifteen cases of typhoid were treated, and it does not appear that any cases of serious illness are refused admission.

The published Report of the hospital is defective, as not showing the classification and number of the cases treated; and it is advisable also that the average daily number resident and the annual cost per head should be distinctly shown in this document.

The system of giving subscribers of one guinea an order for the admission of a patient in return for the subscription is in use, but urgent cases are always received without these; and all cases sent by the police or the Government Medical Officer of the district are admitted at once.

The committee complain of the number of cases they are compelled to admit who come as vagrants and travellers from other districts and have no claims on the hospital, and give the following return (which, however, is not very conclusive on this matter without some definition of what is included under the terms Southern, Northern, and Western Districts) from which all patients came who were admitted in 1898:—

Parramatta	...	...	...	...	...	...	96
Granville and Southern Districts	...	...	...	...	...	...	65
Northern Districts	...	...	...	...	...	...	70
Western Districts	...	...	...	...	...	...	25
							256

The out-patients, including casualties, numbered 283 in 1897 and 722 in 1898, and no explanation is forthcoming as to the increase. The casualties are attended to at the hospital, but the majority of the other cases are seen at the residences of the medical officers and go to the hospital for medicine.

There is no private ward, and the room which was formerly used as one is now appropriated to the general purposes of the hospital, as the committee did not consider they were fully repaid by the charges made.

The financial position is as follows:—The hospital is free from debt with the exception of an overdraft on the current account of £131 14s.

It has a fund of £1,070 set aside, of which, so far as £600 is concerned, the interest only, under the direction of the donors, can be spent. The remainder of the amount has not come to the hospital under any definite conditions. In addition to this there is a building fund which has £102 to its credit.

The income for 1898 was as follows:—

Subscriptions, donations, &c.	...	...	...	...	£528	6	6
Interest on deposit	...	...	...	...	23	13	6
Patients' payments	...	...	...	...	143	19	9
Rent of cottage	...	...	...	...	24	6	0
Minor receipts	...	...	...	...	2	18	3
Government subsidy	...	...	...	...	632	14	3
Government subsidy to building fund (on amount raised by a bazaar).					147	3	10
Unclaimed poundages	...	...	...	...	11	13	5
					£1,514	15	6

The hospital is now worked with some difficulty owing to the very unsatisfactory condition of the older part of the building, the fact that the new wards have no special sanitary arrangements, and that the whole Institution may be considered as in a transition stage; but it is clean and well kept, and is evidently the subject of great interest to the officers and committee of management.



## WALLSEND MINING DISTRICT HOSPITAL.

This hospital was built in 1892 on a well-situated plot of land, in area about three acres, the gift of the Wallsend Colliery Company. The original cost of the building was a trifle under £4,000, and recent additions have entailed a further expenditure of £600, making a total of £4,600; a cost per bed of £209. The hospital is free from debt, and is held by the trustees. Provision is made for twenty-two beds, distributed in one ward for men, one ward for women and children, and two private wards each for a single patient. There is no isolated ward for infectious diseases. In the main building are the matron's quarters and an operating-room, and in an annex, connected by a covered way, are the nurses' and servants' quarters, kitchen, laundry, store-rooms, etc. The mortuary and ambulance-shed are detached buildings. The whole premises are well-designed, and very great attention has been paid to details of construction, sanitary fittings, etc., so that it is in most respects an excellent model for hospital architects. The operating-room is well-lighted, well-arranged, and well-fitted, and, except as to its floor, all that an operating-room should be. The staff is satisfactorily lodged, and the kitchen and offices, though small, are sufficient. The drainage of the hospital has been made the subject of considerable thought and care, and is so disposed as not to cause offence.

The hospital is governed by a committee, which meets once a month, consisting of a president, vice-president, honorary treasurer, three trustees, and nine members, and two of the five medical officers act on the committee. The executive committee consists of the officers—president, vice-president, and honorary treasurer, the medical officer for the month, and four members of committee, who change every three months. This committee, by the rules, meets once a fortnight. The secretary is a paid officer, receiving £25 a year, and is not a member of the committee.

The honorary medical staff now numbers five. The nursing staff consists of a matron at £60, two certificated nurses at £35 each, and one probationer at £12 a year. No training except in practical work is attempted. The other staff consists of three—a wardsman, cook, and laundress. All the laundry work is done at the hospital. The number of patients in 1897 was 186, the daily average number resident 15·4, and the cost per bed £64 6s.; and in 1898 the number was 184, the daily average number resident 14·4, and the cost per bed £80 7s. No explanation was forthcoming as to the very serious increase in the cost during the latter year.

The hospital is mainly for accident and surgical cases. No tabulated list of diseases is published, but inquiries showed that the number of medical cases is comparatively few. The operations alone numbered 128 in 1897, and 140 in 1898. Cases of infectious diseases are not received, and such as occur in the hospital are isolated as far as possible in the private wards. The only cases absolutely excluded are those of phthisis and incurable diseases. There are no out-patients.

The rules provide for the admission of patients under subscribers' orders, but this system has practically fallen into disuse, and it is through the secretary and the medical officers that patients gain admission to the hospital. The amount received from patients in 1898 was £45 4s. 6d., and this was taken chiefly in sums ranging from 2s. 6d. to £1 1s. a week. The charge for the private wards is nominally £3 3s. a week, but £2 2s. is the sum more usually paid, the committee determining what charge shall be made in each case.

The financial statement shows that the income in 1898 was as follows:—

Subscriptions	...	...	...	...	£382	12	9
Donations	...	...	...	...	148	14	7
Patients	...	...	...	...	45	4	6
Government subsidy	...	...	...	...	388	11	3
Special grant	...	...	...	...	300	0	0
					<hr/>		
					£1,265	3	1

The special grant was given to provide additional buildings and equipment. There was a credit balance at the end of the year of £709 5s. There is no endowment or other invested funds.

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The subscriptions come in a very large degree from miners, but have rather fallen off than increased during the last year or two. The committee individually and collectively are, and with reason, very proud of their hospital, and evidently take a keen interest in its management and welfare. On the whole, its condition is commendable, but some further attention to details on the part of the resident staff, both with regard to the comfort of individual patients and the condition of the buildings and offices, is advisable.

#### WELLINGTON HOSPITAL.

This hospital was established thirty-five years ago, and is a brick building standing on a site, which does not appear to be altogether suitable, near the Macquarie River. The area of land, which was given by the Government, is 5 acres. We were unable to ascertain the cost of the premises owing to the length of time which has elapsed since they were erected. The number of beds is seven—five for males and two for females, and there are, in addition, two rooms which can be used for purposes of isolation in cases of infectious diseases, though one of these is now used as a storeroom. There is no private ward, and no operating room. The hospital is ill-built, very antiquated as to its arrangements, and altogether unsuitable for its purpose. There are no proper fittings either in the room used as a bath-room or elsewhere. The floors are old, with wide spaces between the boards, and the walls are unplastered. Pit closets are in use, and there is a want of proper drainage. The hospital altogether is in a very unsatisfactory condition, and we found it, at the time of our visit, ill-kept and in some respects far from clean. The bedsteads and the furniture generally are of a very primitive character. The rooms occupied by the members of the staff were in a very untidy condition.

The kitchen is in a detached building connected with the hospital by a covered way, which, however, affords but little protection from the weather. Near the kitchen are the two rooms abovementioned for infectious cases, and another room, all of which were in a most untidy and unsatisfactory state.

The committee is elected in accordance with the Hospitals Act, and consists of fifteen members, from whom the president, vice-president, hon. treasurer, and hon. secretary are elected. There are three trustees. The committee meets once a month; and the house committee, which consists of three members elected for a month, together with the three executive officers as *ex officio* members, meets once a week.

The medical officer is paid £70 a year—an amount which, considering the small average number of patients, is certainly large. The nursing staff comprises a wardsman and his wife, who are paid £75 a year. Neither possesses a proper certificate of qualification for the position, though both were employed for some little time at the Coast Hospital. The hospital in this respect does not comply with the present requirement of the Government that the matron or head of an institution of this kind should be a certificated nurse. A servant is occasionally employed at 8s. a week.

The number of patients treated in 1897 was ninety, and the daily average three and a half; the number in 1898 was eighty-eight, and daily average very nearly three. The cost per bed in 1897 was £128 5s., and in 1898 £133 12s.

In the latter year a sum of £64 9s. was spent in improvements, but these do not appear to be other than the necessary repairs and minor alterations which should be included in the annual cost, so that the maintenance rate for both years is very high.

There are no out-patients treated. The sum of £25 7s. 6d. was contributed by patients in 1898, and it does not appear that any higher sum than £1 a week is ever asked for or received.

Patients are admitted on subscribers' orders, subject, however, to a certificate by the doctor that they are fit cases, but all patients sent by the police or Government Medical Officer are admitted direct.

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The income of the hospital for 1898 was as follows:—

Subscriptions and donations ... ..	£154	5	0
Contributions from patients ... ..	25	7	6
Poundage fees, &c. ... ..	11	5	10
Government subsidy ... ..	156	14	4
	<hr/>		
	£317	12	8

The hospital has no endowment or reserved funds. At the close of the year there was a balance at credit of the current account of £24 6s. 10d.

The list of subscribers is a very small one, and the greater part of the receipts is obtained from entertainments given specially for the benefit of the hospital.

The condition of the hospital as regards the building, equipment, and the management, we consider to be very unsatisfactory. The arrangement under which a married couple with a rapidly-increasing family have charge of an institution of this kind, with only occasional help, appears to us to be one that should be altered at an early date, and a matron, who is a certificated nurse, appointed in accordance with Government regulations applying to subsidised hospitals. The whole surroundings of the hospital were untidy, and the wardman is allowed to keep a number of fowls, which, as we saw, were allowed to get into the store-rooms and other places from which they should have been excluded. The wardman is allowed to supply the hospital with poultry and eggs.

#### HAWKESBURY HOSPITAL, WINDSOR.

This hospital forms part of the Hawkesbury Benevolent Asylum, which is managed by the Hawkesbury Benevolent Society. This society has a curious history, which is set forth in an interesting pamphlet by the Hon. W. Walker, M.L.C., who is the president. It appears to have been instituted in 1818 for the relief of such poor persons belonging to the district "as through age, accident, or infirmity are unable to support themselves," and has been in more or less active existence ever since. Its operations were confined at first to the granting of out-door relief, and its funds were obtained partly by subscriptions and donations, some of which were in cattle, and others in wheat, maize, and other produce, and partly from a cattle-station on a Government grant at Liverpool Plains, on which there were at one time upwards of 2,000 head of cattle. In 1834 the Government granted 1 acre of land in the town of Windsor, and on this an asylum was erected, which is standing to this day, but which has not for some years been used for asylum or hospital purposes.

In 1845, the Government having some time before discontinued the hospital for prisoners at Windsor, the society conceived the idea of uniting an hospital to the asylum, and the hospital buildings in Macquarie-street, which had been erected in 1820 by the Government, were handed over to the society with an annual grant of £200, conditionally on another £200 being raised by subscriptions. The asylum was some time after removed to the hospital buildings, and the two departments have ever since been carried on jointly under one roof.

The society has had, financially, a somewhat chequered career, owing to a long continuance of law-suits and disputes as to the boundaries of its station property. It lost about two-thirds of its station, and in 1862 the stock was sold, and the remaining land let to a tenant. In 1887 the income of the society was stated to be £1,250 from all sources, but this has much decreased, and in 1898 it was only £766, as set forth in the annual report, as follows:—

Subscriptions and donations ... ..	£156	13	5
Hospital fees—fees from patients ... ..	61	2	0
Government subsidy ... ..	213	12	0
Unclaimed poundage ... ..	13	0	6
Rents ... ..	161	0	0
Interest on invested funds ... ..	155	0	0
Other receipts ... ..	5	14	6
	<hr/>		
	£766	2	5

The

The property of the institution is as follows :—

Fixed deposit, Bank of New South Wales ... ..	£3,500
Fitzgerald Bequest ... ..	1,200
Land, town of Windsor ... ..	1 acre.
„ adjoining town of Windsor ... ..	13 acres.
„ town of Wilberforce ... ..	10 „
„ Currency Creek ... ..	500 „
„ Mooki, Liverpool Plains ... ..	1,369 „

Also, hospital premises and the land on which they stand at Macquarie-street and old asylum premises near the railway station, Windsor.

The society is governed under a Special Act of Parliament, 4 Vic. No. 3, passed July 21, 1840, but has recently applied to the Government to pass a new Act amending its constitution and allowing it to sell some of its landed and other property.

The hospital cannot be considered altogether apart from the Benevolent Asylum, since both are carried on in one building under one management, and without any separate books showing the cost of each department. The total accommodation provided is for 56 inmates; 19 beds are set apart, ordinarily, for hospital and 37 for asylum cases. Of the total number of beds, 36 are allocated to men and 20 to women.

The asylum wards are on the ground-floor, and the hospital wards on the upper floor of the two-storied building, but in times of pressure on either department there appears to be some encroachment on the other. The women's wards are not nearly occupied to the extent of the capacity, but the men's wards, especially in the asylum department, are overcrowded, and the amount of cubic space is clearly insufficient.

The qualifications for admission to the benevolent department are age, infirmity, and poverty, together with a six months' previous residence in the district. When the institution is full cases are sent on to the Government Asylums for the Infirm and Destitute at Parramatta and Liverpool.

The main building is substantially built of brick in two storeys, and the committee has recently erected a new central staircase, built a verandah and balcony, and effected other improvements, including repainting, and numerous minor repairs; but the structure is, in its present condition, inherently unfit for hospital purposes, and only very extensive alterations, which would include new and larger windows, new ceilings, new floors, better ventilation, and other improvements, would make it fit. It has throughout the old peculiar poor-house smell, which anyone familiar with old buildings used for hospital or asylum purposes at once recognises; and the medical officers report that despite all precautions their operation cases do not do so well as they would in a more wholesome atmosphere.

The floors and skirtings are so old that it is almost impossible to keep them clean and free from vermin, and the wooden ceilings with wide joints are also a harbour for these pests.

The dispensary and office are in the main building, and all the other offices, including two rooms for isolation, are detached, and consist, with the exception of the matron's quarters, which are good and sufficient, of a number of ancient structures which are neither in good repair, sightly, nor creditable to the society. There is no operating-room, and no proper accommodation for the nurse and wardsmen, who sleep in the female and male wards respectively, an arrangement obviously objectionable, and calculated to deter suitable persons from accepting the appointments.

The closets are on the earth-pan system, and the night-soil is buried in an adjoining area of land used as a garden, which, however, does not appear to us of sufficient size for such use. Water is obtained from the town supply, which we are told is not altogether satisfactory. No hot-water supply is laid on to the main building, but for the baths, which are in an outhouse, hot water is obtained by pipes from the kitchen range.

The

The institution is managed by a committee, which meets monthly, and consists of a president, vice-president, honorary secretary, honorary treasurer, seven life members, and eight members elected annually. From this body a house or visiting committee of three members is appointed monthly, meeting once a week. The trustees are five in number, and are all also office-bearers or members of the committee. There are two honorary medical officers who are amongst the elected members of the committee; and the staff consists of a matron, who is also superintendent, paid a salary of £80; a nurse, who is not certificated, £39; a wardman, £24 6s.; a cook, £31 4s.; and a laundress, £31 12s. a year.

The asylum inmates render some help in gardening, and receive gratuities for so doing.

The number of patients in 1897 was 121, and the average daily number 27; and the number in 1898 was 148, and the daily average 32. The cost per bed was £25 19s. in 1897, and £26 17s. in 1898; but this cost cannot fairly be compared with that of other hospitals, as the asylum patients, who cost less than hospital patients, are a majority of the number. The daily average number of hospital cases in 1898 was 8.

The number of out-patients does not exceed 30 annually, and consists chiefly of minor casualties.

The hospital patients and the other inmates are admitted under the old system of subscribers' orders, but in the case of the former the medical officers certify as to their fitness for hospital treatment before they are received.

The payments by patients in 1898 amounted to £61 2s., and this sum was made up of payments ranging from 10s. to two guineas a week, which is the maximum charge. As, however, there are no private wards, the latter amount is only received in very exceptional cases.

The society furnished out-door relief at a cost of £68 6s. 8d. during 1898, most of the articles being given from the stores of the institution, or by means of orders upon tradespeople.

The financial position of the society has already been dealt with, and it only remains to point out that the current account shows a credit balance at the end of 1898 of £136 3s. 4d.

The number of subscribers, considering the extent of the district, is a very small one, and it is apparent that the fact of the society possessing a considerable amount of property tends, in the first place, to excite individual benevolence; and in the second, to lessen the interest of the inhabitants generally in an institution the claims of which are not pressed upon them, and which they are not called on to support.

The main part of the building, and especially the rooms used for hospital wards, are clean and well kept so far as is possible in such an old structure, but on the whole the arrangements are not satisfactory, and it does not seem expedient that asylum and hospital patients should ever be accommodated under one roof. The asylum inmates are in no degree better provided for than they would be in one of the Government asylums for the infirm and destitute, and we think it should be a matter for earnest consideration on the part of the committee whether in obtaining a new Act of Parliament provision should not be made for giving up the asylum and devoting the funds and energies of the society entirely to hospital work. In any case very considerable alterations are necessary before the hospital department can be placed on a satisfactory footing, and a part of the accumulated funds might advisedly be devoted to building a new hospital on modern lines, and with all the necessary equipment for successful work.

#### ALBERT MEMORIAL HOSPITAL, WOLLONGONG.

This hospital was founded in 1846, and was built on a site altogether unsuitable. About twelve years ago an additional piece of land was acquired by purchase, and additions to the premises were made in the shape of a cottage for infectious diseases,

diseases, costing nearly £450. In 1890 a new ward was erected, and various improvements carried out at a cost of about £1,500. The total cost of the buildings, land, and furniture up to date has been £3,250, or at the rate of £171 a bed. Before commencing the additions in 1890 a new site was sought, with an idea of removing the hospital; but the sums required for suitable locations were so large that neither the committee nor the Government, whose assistance was sought in the matter, felt justified in incurring the expense.

The area of land is about 1 acre, and the buildings, except the infectious diseases cottage (which is of weatherboard), are of brick with slate roofs. The main building contains the committee room and office, the matron's and nurses' rooms, and the ward for women, and on to these is joined, by a verandah, the new ward for men. The women's ward is somewhat gloomy, owing to the height of the windows from the ground level, and both this ward and other parts of the hospital are made unnecessarily dark by a general frosting of all windows, which completely prevents any outlook by the patients, and is clearly unnecessary as well as objectionable. There are no private wards. The kitchen, laundry, and the minor accessory buildings are good and sufficient, and there is a good and well-equipped operating-room. The number of beds in the main wards is twelve—eight for men and four for women, and the cottage for infectious diseases will accommodate seven patients in two rooms.

The matron's, nurse's, and servant's quarters will be ample and satisfactory when a room now in course of erection is completed.

The hospital is governed by a committee of twelve members, together with president, vice-president, and hon. treasurer, who meet once a month, and depute some of their functions to a visiting or house committee consisting of three members, elected every four months. There are three honorary medical officers, none of whom have seats on the committee. Of the three trustees, one is a member of the committee.

The paid staff of the hospital is as follows:—Matron, who is a trained nurse, at £53 a year; nurse, at £20 a year; and a general servant, at 12s. a week. A man is engaged for gardening and other purposes when required, and the secretary receives £25 a year.

The number of patients in 1897 was 55, and the daily average 2·8; and the number in 1898 was 53, and the daily average number 3·1. The cost per bed in the latter year was £130 5s. There are no out-patients.

The in-patients are admitted on subscribers' orders, subject to examination by one of the medical officers. All accident, emergency, and police cases are at once received.

Patients are expected to pay, if able, up to 2s. 6d. a day, but no larger amounts are received.

The income of the hospital in 1898 was as follows:—

Subscriptions	...	...	...	...	£27	3	0
Donations	...	...	...	...	100	7	0
Payments by patients	...	...	...	...	41	1	1
Interest	...	...	...	...	55	0	0
Government grant	...	...	...	...	50	0	0
„ subsidy	...	...	...	...	74	13	2
					<hr/>		
					£348	4	3

The hospital has a sum of £1,000 invested in Government debentures, which was left by Mr. John Bright, on the understanding that the interest only was to be used; and it has, at fixed deposit, also a sum of £500, which has accrued from savings. The statement of account for last year shows a credit balance of £19 13s. 2d.

The number of subscribers at £1 each is twenty-seven only, which, considering that ten of these are the heads of collieries or other large works, is a very small number for this large district. As the remaining funds, collected from the public in 1898 by way of donations, proceeds of entertainments, &c., amounted only

only to £100 7s., the hospital cannot be considered as being well supported by the inhabitants. The district extends to Albion Park on the south, where it meets the Kiama hospital district, and Corrimal on the north, where the Bulli district commences. It includes the town of Wollongong and the mining townships of Kembla and Keira. The patients, with few exceptions, come from the district itself.

On the whole, the hospital appeared well kept, but there was a want of attention to minor details. Its general equipment is satisfactory, and the general management good, but the infectious diseases cottage, which was not being used, was untidy.

#### WYALONG HOSPITAL.

This hospital was opened in April, 1895, but for six or seven months prior to that date accommodation had been provided for patients in tents. The building, which stands in a site of 17 acres granted by the Government, is constructed of wood and iron. It contains two wards, one with six beds for men, and the other two beds for women. Its cost was £565, or at the rate of about £70 per bed. There is no proper operating-room, the dispensary, which also has to serve as the matron's bedroom, being used for that purpose when necessary.

The hospital is managed by a committee of nine members, from whom a house committee of three members is appointed.

The staff consists of a medical officer, who is paid £160 a year for his services, a matron, who is a certificated nurse, paid £60 a year, and two probationers. The latter do not receive any salary for the first six months of appointment, but after that time they are paid £32 a year, which includes £6 for uniform. There are also a wardman, a cook, and a general servant. The secretary receives an allowance of £39 a year, and is paid a commission of 5 per cent. on all collections made by him in town, and 7½ per cent. on those in the country.

Patients are admitted on the system of subscribers' orders, subject to the medical officer's certificate of their fitness for hospital treatment. This system is approved on the ground that it aids in bringing subscriptions to the hospital, and for this reason it appears an attempt made by the committee to abolish it was abandoned.

The number of patients treated in 1897 was 114, and in 1898, 112, the daily average in each year being 9 and 8·6 respectively. The average annual cost per bed was £91 7s. in the former year, and £70 1s. in the latter.

There is no private ward, and the payments by patients are very few. In 1898, £11 10s. only was received from that source.

The revenue of the hospital in 1898 was as under:—

Subscriptions and donations	...	...	...	£217	2	6
Government subsidy	...	...	...	278	2	1
Proceeds of balls, &c.	...	...	...	102	11	7
Patients' payments	...	...	...	11	10	0
				<hr/>		
				£609	6	2

and the accounts closed with a small credit balance.

The hospital serves a large district, the population of which appears to be increasing, and the accommodation it provides is inadequate to meet the calls made upon it. The average daily number of patients is an indication of the strain put upon the institution. Many accident cases are received requiring surgical attention, and it is considered by the medical officer that when severe they should be isolated from the general wards, where it is said their treatment now is not always attended with success.

There is no isolation ward for the reception of infectious cases, but a case of scarlet fever and two of measles were treated at the hospital last year. The nearest other hospital is at Temora, about 40 miles away.

The hospital appears to be well and cleanly kept, but it is not well equipped.

**Appendix D.**  
**SUBSIDISED METROPOLITAN HOSPITALS.**  
*(Including Government Hospital, Little Bay.)*

Name.	Construction of Main Buildings.	Cost of Buildings.	Number of Beds provided for.			Building Cost per Bed.	Private Wards.	Area of Site.	Nursing Staff—Including Matrons, Nurses, Probationers, and Wardsmen.	Year.	Revenue.					Expenditure.					Invested Funds at end of 1898.	Number of In-patients treated.	Average daily number in hospital.	Average stay of discharged patients.	Average Annual Cost per bed.	Number of Out-patients treated (Individuals).		
			Ordinary Cases.	Infectious Cases.	Total.						From Government.	Subscriptions and Donations.	From patients.	Interest on invested Funds.	Other Receipts.	Total.	Medical Officer's Salary and Fees.	Other Salaries and Wages.	Maintenance.	Buildings and Repairs.							Other.	Total.
Sydney	Stone	169,650	312	6	818	081	Nil	a. r. p.	74	1897	15,262	25,689	2,332	1,254	152	24,689	7,141	9,845	1,575	2,848	21,404	...	4,090	291.0	24.3	61 16 0	263,306	
										1898	11,777	26,157	2,296	1,058	309	21,022	800	7,038	866	1,562	21,880	237,494	3,904	292.0	25.0	61 10 0	21,401	
Prince Alfred	Brick	177,922	230	6	236	754	4 12 0 0		68	1897	9,829	23,728	2,401	1,169	238	17,308	900	7,154	7,218	1,531	794	17,597	3,458	225.0	26.0	70 4 0	12,000	
										1898	10,825	25,904	2,414	681	371	20,145	867	7,097	7,442	1,088	756	17,286	35,478	3,706	227.0	25.0	68 7 0	12,493
Coast	Iron	72,114	227	59	286	252	Nil		47	1897	14,974	...	...	...	...	14,974	2,445	8,198	2,724	1,607	14,974	2,506	224.0	32.0	57 2 0	2,400		
										1898	20,910	...	...	...	...	20,910	3,884	10,324	4,928	1,704	20,010	2,094	231.6	31.4	70 17 0			
Children's	Brick	12,048	52	12	64	197	Nil	5 0 0	25	1897	1,409	1,053	505	24	...	2,591	301	1,192	1,565	157	393	3,038	...	51.3	20.3	207 14 0	2,860	
										1898	1,480	1,818	408	27	...	3,733	254	1,209	1,417	207	428	3,515	8,747	445	44.0	35.6	106 15 0	4,082
Women's (Year ending 30 June).	Brick	Rented premises.	25	...	25	...	Nil		13	1897	220	148	54	...	245	676	...	...	837	...	837	...	59	...	...	...	1,006	
										1898	676	156	184	...	571	1,487	...	224	635	86	7406	1,321	229	20.0	17.0	53 0 0	1,177	
Balmain	Brick and Stone	4,600	22	...	22	210	Nil	1 0 0	4	1897	655	581	57	28	1	1,217	100	217	702	1,062	90	2,171	119	5.76	10.65	92 17 0	1,473	
										1898	560	501	71	16	3	1,167	100	257	415	27	50	849	450	116	6.05	20.78	83 17 0	1,558
Manly	Brick	2,000	11	1	12	167	Nil	0 2 0	4	1897	516	506	68	...	5	1,000	...	155	241	174	45	715	124	6.22	19.0	93 10 0	Nil	
										1898	571	524	52	...	2	1,149	...	176	250	500	30	956	400	138	8.9	24.3	56 10 0	Nil
North Shore	Brick	3,100	23	2	25	124	Nil	1 0 0	7	1897	667	426	141	22	...	1,250	...	397	763	47	50	1,267	351	16.12	16.8	77 17 0	Nil	
										1898	407	647	139	26	...	1,219	...	425	757	29	92	1,306	204	375	16.68	16.46	77 18 0	Nil
St. George's (Kogarah).	Brick	1,800	11	...	11	172	Nil	3 2 0	6	1897	394	311	...	67	...	712	...	115	207	696	19	1,117	121	6.53	17.95	57 8 0	Nil	
										1898	279	296	...	67	...	592	...	129	298	4	29	460	112	7.0	19.0	65 14 0	Nil	
Western Suburbs (Ashfield).	Brick	2,640	16	...	16	176	Nil	2 0 0	6	1897	826	569	97	...	1	1,493	...	447	473	65	89	1,074	186	12.0	20.0	87 12 0	124	
										1898	1,007	731	50	...	2	1,790	...	372	401	223	124	1,120	600	149	12.0	20.2	81 19 0	89
Marrickville	Brick	2,537	12	...	12	216	Nil	1 0 0	.....	..	Opened in 1899.					.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	.....	.....	940	86	1026	.....	.....	.....	.....	1897	44,661	13,003	5,650	2,490	642	67,055	20,564	30,239	8,051	5,980	64,784	.....	11,690	.....	.....	.....	.....	.....
										1898	48,398	16,704	5,614	1,760	1,258	78,794	22,335	33,553	7,078	5,211	69,077	83,273	12,025	.....	.....	.....	.....	43,290

CLIX

a Includes bequests invested, £2,171.    b Attendances.    c Includes bequests invested, £3,702.    d Includes £2,903, Samaritan Fund.    e Includes bequests invested, £994.    f Includes bequests invested, £3,501.    g Includes alterations and repairs.    h Diphtheria Branch.    i Includes treatment of out-patients.    j Includes land.    k In addition, a legacy of £7,850 was received and invested.    l Includes payment for rent.    m Includes land, but excludes cost operating-room.    n Includes land.    o Includes rent.





COUNTRY HOSPITALS—continued.

Name.	Construction of Main Buildings.	Cost of Buildings.	Number of Beds provided for.			Building Cost per Bed.	Private Wards.	Area of Site.	Nursing Staff—Including Matron, Nurses, Probationers, and Wardsmen.	Year.	Revenue.					Expenditure.					Invested Funds at end of 1898.	Number of In-patients treated.	Average daily number in hospital.	Average stay of discharged patients.	Average Annual Cost per bed.	Number of Out-patients treated (Individuals).
			From Government.	Subscriptions and Donations.	From patients.						Interest on invested Funds.	Other Receipts.	Total.	Medical Officer's Salary and Fees.	Other Salaries and Wages.	Maintenance.	Buildings and Repairs.	Other.	Total.							
Collareubabri	Iron	850	14	14	01	2	16 0 0	3	1897 1898	274 340	265 137	0 1	.... ....	.... ....	545 478	150† 150†	83 66	98 99	253 379	20 61	606 745	17 32	.... 1-16	10-1 13-3	.... 296 15 0	10 40
Condobolin	Brick, I.W. wood and iron.	1,000	10	4	14	71	Nil.. 10 0 0	2	1897 1898	159 312	203 162	41 37	.... ....	.... 4	403 515	125 125	118 131	195 175	12 8	37 22	487 461	80 61	5-0 4-0	22-1 30-2	97 5 0 116 6 0	34 32
Coonambri	Stone	1,873	11	1	12	156	Nil 4 0 0	2	1897 1898	101 129	191 162	13 ....	.... ....	.... ....	395 281	92 158	107 118	190 118	10 ....	29 30	428 307	45 46	3-0 2-8	25-8 24-0	141 14 0 106 12 0	18 17
Coonaharabran	Brick	1,368	7	1	8	171	1 9 3 34	1	1897 1898	171 131	134 95	24 12	2 6	.... 3	331 247	70 70†	75 85	70 96	2 4	20 20	237 274	45 42	2-3 2-7	18-1 27-0	103 8 0 101 16 0	.... Nil.
Coonamble	Brick, I.W. wood.	1,810	9	6	15	121	Nil 6 0 0	4	1897 1898	357 636	415 379	94 75	.... 2	4 17	870 1,009	94 100	167 232	250 406	449 105	58 56	1,027 898	95 136	5-0 9-0	20-7 25-0	123 6 0 91 18 0	93 120
Cootamundra	.....	.....	10	2	12	..	.....	.....	1897 1898	542 150	255 211	9 28	7 10	2 10	845 409	50 50	130 163	169 292	7 36	47 44	394 685	116 99	4-3 4-3	14-3 18-5	90 17 0 136 0 0	.... Nil.
Corowa	Brick	2,028	10	2	12	169	Nil.. 5 0 0	4	1897 1898	363 494	404 411	19 13	9 9	6 1	891 928	50 50	330 317	377 509	165 90	162 70	1,021 1,027	179 192	9-0 11-7	20-4 17-7	84 3 0 52 19 0	199 233
Cowra	Brick	1,200	8	6	14	89	Nil.. 2 2 0	3	1897 1898	311 201	129 223	99 143	.... 11	.... 5	439 583	.... ....	137 164	267 287	8 23	28 50	440 614	140 156	0-4 7-5	10-8 15-2	69 1 0 88 10 0	.... Nil.
Deniliquin	Mainly brick, I.W. wood.	2,300	25	2	27	85	Nil. 2 2 0	2	1897 1898	474 417	330 437	35 49	109 208	10 ....	1,027 1,111	150 150	200 265	375 402	231 300	95 132	1,111 1,249	116 135	11-7 9-3	.... 28-1	95 6 0 122 12 0	163 185
Dubbo	Brick	*2,067	13	12	25	..	Nil.. 16 0 0	5	1897 1898	883 407	359 371	11 43	12 7	.... ....	770 828	75 115	208 186	400 449	61 43	108 98	847 896	237 260	13-0 14-0	24-0 20-0	65 8 0 63 19 0	158 154
Dungog	Brick	600	7	7	86	Nil.. 5 0 0	3	1897 1898	.... 278	157 149	35 51	16 6	.... ....	.... ....	208 484	72 68	112 160	84 129	58 ....	11 42	337 309	43 51	2-3 3-0	18-5 20-7	123 9 0 134 17 0	.... Nil.
Forbes	Stone, brick, and wood.	1,400 Approx.	16	4	20	70	Nil.. 2 0 0	2	1897 1898	327 184	230 301	122 129	2 ....	.... 3	631 617	.... ....	285 255	386 437	45 10	77 69	793 762	195 218	12-0 13-0	20-0 20-0	65 8 0 57 15 0	80 73
Glen Innes	Brick, I.W. wood.	No record.	12	4	16	..	Nil. 10 0 0	4	1897 1898	186 132	159 180	49 113	3 ....	3 2	400 427	89 86	99 113	159 191	25 20	31 40	335 450	73 91	4-0 4-0	18-9 17-0	96 9 0 112 11 0	.... Nil.
Goodooga	.....	.....	6	6	..	.....	.....	2	1897 1898	151 261	261 135	.... ....	.... ....	21 1	433 397	150 146	72 112	117 150	6 119	54 31	399 558	28 42	0-7 2-1	9-3 21-4	520 3 0 200 11 0	.... Nil.
Goulburn	Stone and brick	9,500	30	16	46	207	3 9 2 20	8	1897 1898	586 757	596 622	207 193	8 10	9 47	1,406 1,629	100 109	338 362	703 680	11 37	100 125	1,275 1,234	298 339	20-7 22-7	26-3 26-6	58 2 0 56 5 0	39 47
Grafton	Brick	3,750 (Present value.) 1,750	21	1	22	170	2 5 2 22	5	1897 1898	329 292	239 316	31 177	31 20	.... 3	630 897	100 100	239 247	416 477	21 20	47 65	823 890	232 252	18-7 13-5	23-3 20-7	59 17 0 66 5 0	122 397
Grenfell	Brick	.....	12	2	14	125	1 (2 beds.) 4 2 0	2	1897 1898	56 341	183 254	25 33	.... ....	.... ....	247 633	52 60	85 84	136 137	66 17	27 35	366 323	33 52	1-7 3-2	19-2 25-2	226 10 0 101 11 0	.... 12
Gulgong	Wood	.....	10	2	12	..	Nil.. 1 0 38	3	1897 1898	143 202	205 200	25 104	5 6	.... ....	382 521	100 62	100 103	244 240	4 2	70 39	518 451	93 100	9-9 8-1	36-4 34-5	52 7 0 55 17 0	52 51
Gundagai	Brick and stone, I.W. iron.	No record.	7	2	9	..	Nil.. 2 2 0	3	1897 1898	193 266	404 379	41 76	.... ....	.... ....	638 721	75 74	140 141	354 381	12 5	65 62	646 608	105 92	6-3 7-0	22-4 27-0	102 16 0 87 13 0	72 71

\* Includes repairs. † Includes drugs. ‡ Includes treatment of out-patients. § Includes extensive repairs. ¶ Includes general painting of buildings. ¶ Rent. I.W.--Infectious ward.

COUNTRY HOSPITALS—continued.

Name.	Construction of Main Buildings.	Cost of Buildings.	Number of Beds provided for.			Building Cost per Bed.	Private Wards.	Area of Site.	Nursing Staff—Including Matron, Nurses, Probationers, and Wardsmen.	Year.	Revenue.					Expenditure.					Invested Funds at end of 1898.	Number of In-patients treated.	Average daily number in hospital.	Average stay of discharged patients.	Average Annual Cost per bed.	Number of out-patients treated (Individuals).		
			Ordinary Cases.	Infectious Cases.	Total.						From Government.	Subscriptions and Donations.	From patients.	Interest on invested Funds.	Other Receipts.	Total.	Medical Officer's Salary and Fees.	Other Salaries and Wages.	Maintenance.	Buildings and Repairs.							Other.	Total.
Gunnedah		£	9	4	13	£			2	1897 1898	178 239	166 253	30 50	40 20	414 567	120 120	123 168	263 247	277 14	19 36	867 585	1,145	117 130	5.9 7.6	17.8 21.5	97 5 0 77 1 0	65 90	
Hay	Brick, I.W. wood and iron.	5,007	26	6	32	156	Nil.	10 0 0	4	1897 1898	808 787	748 609	104 225	69 74	81 7	1,930 1,702	155 155	377 401	730 683	135 121	296 116	1,743 1,476	2,835	242 262	20.2 17.7	30.5 24.3	82 6 0 81 8 0	171
Hill End	Brick	1,500	7	4	11	164	Nil.	1 2 10	1	1897 1898	187 162	166 130	1 7	19 19	373 318	98 130	73 73	133 209	89 23	14 3	362 331	638	20 24	1.4 1.1	25.0 ....	247 10 0 140 13 0	31 33	
Hillgrove	Wood	1,000 Approx.	11	7	18	55	Nil.	5 0 0	2	1897 1898	302 322	341 276	23 43	14 22	680 663	125 150	160 170	147 145	68 14	26 35	532 514	700	53 56	3.6 4.2	27.0 29.2	148 10 0 122 15 0	Nil.	
Hillaton	Wood	1,500	15	0	24	75	Nil.	3 0 28	3	1897 1898	393 356	409 322	67 42	....	809 720	150 150	233 186	276 236	8 10	61 53	728 635	....	87 96	4.8 4.5	4.6 17.0	161 10 0 140 13 0	163 200	
Inverell	Brick	2,000	16	4	20	100	Nil.	17 2 0	2	1897 1898	170 204	292 234	27 43	3 5	493 576	100 100	195 179	244 289	22 41	40 33	601 642	150	107 143	7.6 8.4	28.0 22.2	76 19 0 75 14 0	99 26	
Jerrilderie			8	2	10				2	1897 1898	112 ....	232 ....	12 ....	.... ....	360 ....	100 ....	103 ....	188 ....	47 ....	68 ....	500 ....	....	68 ....	4.2 ....	24.0 ....	117 12 0 ....	12	
Junee	Brick	600 approx.	9	3	12	50	Nil.	2 0 0	3	1897 1898	108 214	213 254	42 42	.... ....	361 619	.... ....	93 161	217 238	.... ....	26 58	341 507	....	51 115	2.4 6.3	13.4 21.9	140 3 0 80 11 0	.... 9	
Kiama	Iron	1,600	8	2	10	160	Nil.	2 2 0	3	1897 1898	100 121	115 182	49 26	40 47	364 326	90 80	183 138	134 112	13 11	27 20	387 361	1,141	82 62	5.0 4.0	23.0 29.0	77 8 0 90 6 0	.... Nil.	
Lismore	Wood	1,500	17	6	23	65	2	10 1 6	5	1897 1898	412 363	252 463	36 107	*44 33	744 934	100 100	160 181	233 350	94 253	49 32	636 966	1,000	107 188	4.7 8.7	15.9 17.2	135 8 0 90 10 0	35 24	
Lithgow	Brick	1,375	6	4	10	137	Nil.	3 17 0	2	1897 1898	207 209	113 280	35 55	50 65	411 609	28 15	124 117	136 142	40 47	36 18	359 339	1,334	53 72	3.5 3.5	22.5 19.6	95 0 0 91 13 0	Nil.	
Lower Clarence, Maclean.	Brick, I.W. wood.	2,500	12	1	13	192	1	1 2 0	3	1897 1898	215 173	233 203	41 43	.... 6	494 430	50 60	194 201	156 172	17 12	12 35	429 470	200	110 115	5.4 4.6	17.6 14.4	79 10 0 102 0 0	48 33	
Macleay	Brick, I.W. wood.	3,000 nearly.	14	10	24	126	Nil.	6 0 24	3	1897 1898	301 ....	303 191	114 110	*34 23	756 346	100 110	140 161	314 238	24 19	42 29	626 697	710	124 160	0.3 0.5	19.6 27.3	66 8 0 67 0 0	40 30	
Maitland	Brick		33	4	37		1		9	1897 1898	811 615	546 348	190 162	*341 298	1,889 1,424	100 100	490 635	801 943	66 135	147 129	1,604 1,942	.... 8,571	322 407	22.0 23.0	32.0 20.0	72 18 0 84 8 0	188 118	
Manning	Brick	3,600	17	8	25	144	1	2 0 0	4	1897 1898	951 412	464 487	195 219	17 15	1,634 1,087	160 100	193 244	448 402	818 19	77 90	1,086 855	.... 500	191 189	13.7 13.2	33.4 20.3	70 6 0 64 12 0	.... Nil.	
Merriwa	Wood	1,100	8		8	137	Nil.	8 0 0	1	1897 1898	52 55	55 127	10 16	.... ....	117 193	40 40	50 52	31 85	.... 14	12 31	133 222	....	17 33	0.57 3.0	12.6 19.4	233 6 0 73 17 0	Nil. Nil.	
Molong	Brick	1,600	12		12	133	Nil.	8 0 0	3	1897 1898	315 361	837 439	66 60	7 11	725 301	40 40	173 184	240 392	24 442	62 119	545 1,047	.... 301	118 102	7.0 9.0	24.0 18.0	77 19 0 67 4 0	.... Nil.	
	Iron	2,282	17	4	21	106	1	9 3 20	....	1897 1898	309 257	282 280	30 30	20 13	641 585	150 50	190 168	137 223	146 23	71 61	744 555	.... 600	92 128	9.0 8.0	34.7 33.4	69 11 0 81 13 0	.... Nil.	
	Iron	703	16	4	20	85	Nil.	10 0 0	2	1897 1898	.... 656	46 271	.... ....	.... ....	46 927	.... 40	.... 24	.... 99	18 711	5 87	23 911	....	....	Opened October, 1898.	....	....	....	
		647	7		7	92	Nil.	5 2 5	1	1897 1898	71 59	59 101	12 37	*18 2	165 199	73 50	50 58	50 33	.... 7	14 16	196 164	.... 406	20 25	1.1 1.2	2.3 17.4	171 14 0 136 10 0	.... Nil.	

\* Includes rent. † Includes general painting. ‡ Includes treatment of out-patients. § Includes several minor improvements. I.W.—Infectious ward.

COUNTRY HOSPITALS—continued.

	Construction of Main Buildings.	Cost of Buildings.	Number of Beds provided for.			Building Cost per Bed.	Private Wards.	Area of Site.	Nursing Staff—Including Matron, Nurses, Probationers, and Wardmen.	Year.	Revenue.					Expenditure.					Invested Funds at end of 1898.	Number of In-patients treated.	Average daily number in hospital.	Average stay of discharged patients.	Average Annual Cost per Bed.	Number of Out-patients treated (Individuals).		
			Ordinary Cases.	Infectious Cases.	Total.						From Government.	Subscriptions and Donations.	From patients.	Interest on invested Funds.	Other Receipts.	Total.	Medical Officer's Salary and Fees.	Other Salaries and Wages.	Maintenance	Buildings and Repairs.							Other	Total.
Mudgee .....	Brick, I. W. iron.	3,300	23	8	20	127	2	5 0 0	4	1897	378	276	122	....	776	50	287	290	17	70	714	....	164	12.0	24.0	59 11 0	....	
1898	90	364	107	....	....	....	....	....	....	1897	166	175	....	13	344	105	105	172	3	26	411	....	79	5.0	24.3	81 10 0	7	
Murrurundi .....	Brick	1,500	12	2	14	107	NIL.	2 0 0	....	1898	175	237	12	11	435	105	118	184	26	27	460	875	92	5.2	24.3	83 11 0	NIL.	
Muswellbrook .....	Brick, I. W. wood.	No record	14	5	19	..	NIL.	2 8 34	2	1897	218	178	65	13	475	40	137	275	176	68	690	....	95	7.3	23.2	68 10 0	12	
1898	804	205	107	....	....	....	....	....	....	1898	804	205	71	9	589	40	184	247	8	48	472	300	114	9.1	30.5	51 13 0	8	
Narrabri .....	Brick, I. W. wood.	1,800	20	4	24	75	2	3 0 0	.....	1897	322	340	36	....	700	160	177	327	761	108	1,423	....	144	8.1	21.3	88 9 0	NIL.	
1898	477	333	75	....	....	....	....	....	....	1898	477	333	39	....	851	160	174	189	18	78	609	....	177	10.3	32.0	53 19 0	NIL.	
Narrandera .....	Brick	2,891	20	..	20	144	NIL.	5 0 0	5	1897	736	657	101	....	1,405	80	276	530	149	115	1,150	....	203	15.5	28.0	78 1 0	83	
1898	802	624	144	....	....	....	....	....	....	1898	802	624	51	....	877	93	892	604	28	98	1,120	401	220	15.3	25.7	70 12 0	83	
Nepean .....	Brick, I. W. wood.	1,600	13	1	14	114	NIL.	4 0 0	2	1897	468	357	14	2	831	64	140	246	46	64	554	....	79	5.0	23.0	101 15 0	268*	
1898	292	242	114	....	....	....	....	....	....	1898	292	242	12	....	546	75	171	286	19	66	607	100	88	4.6	30.0	123 13 0	51	
Newcastle .....	Brick	About 14,000	59	6	65	215	1	2 0 34	10	1897	673	957	873	7	2,532	200	805	1,164	230	159	2,563	822	801	45.4	22.8	58 8 0	2,589*	
1898	1,352	919	215	....	....	....	....	....	....	1898	1,352	919	1,180	8	3,444	200	890	1,854	560	178	8,188	322	885	47.4	21.9	56 6 0	830	
Nymagee .....	Brick, I. W. wood.	985	8	1	9	104	NIL.	10 0 0	.....	1897	78	108	14	....	190	76	65	106	7	21	275	....	29	1.4	18.4	195 0 0	3,104*	
1898	204	97	104	....	....	....	....	....	....	1898	204	97	8	....	309	82	60	99	19	20	290	....	31	1.3	15.1	181 14 0	....	
Nyngan .....	Brick	947	8	..	8	118	NIL.	10 0 0	1	1897	202	206	11	....	419	68	62	143	32	37	342	....	60	6.6	19.0	56 0 0	21	
1898	191	283	118	....	....	....	....	....	....	1898	191	283	29	....	538	100	119	268	19	71	577	....	98	7.0	24.8	79 7 0	42	
Orange .....	Brick	2,900	21	8	29	97	NIL.	1 2 28	5	1897	414	389	74	13	890	80	311	456	75	102	1,024	....	313	16.3	19.0	62 18 0	NIL.	
1898	497	504	97	....	....	....	....	....	....	1898	497	504	75	....	1,070	66	892	462	34	66	930	....	332	17.0	18.9	64 15 0	NIL.	
Parkes .....	Brick	1,380	21	5	26	52	NIL.	10 0 0	4	1897	683	406	127	4	1,220	33	150	453	34	40	710	....	227	16.0	24.1	43 19 0	19	
1898	406	304	52	....	....	....	....	....	....	1898	406	304	138	9	807	97	218	397	95	181	938	300	236	14.0	26.1	62 11 0	NIL.	
Parramatta .....	Brick	....	24	4	28	..	NIL.	12 0 0	8	1897	750	792	101	69	1,740	....	446	846	300	65	1,657	....	235	18.8	31.0	72 7 0	238	
1898	792	528	28	....	....	....	....	....	....	1898	792	528	144	24	1,515	....	459	838	95	65	1,442	1,172	280	19.9	21.2	72 10 0	722	
Peak Hill .....	Wood	....	8	1	9	..	..	0 1 3	1	1897	188	137	40	....	365	100	55	167	6	50	378	....	113	3.4	23.0	111 18 0	4	
1898	197	209	9	....	....	....	....	....	....	1898	197	209	25	10	446	92	97	141	23	46	369	200	58	3.2	21.5	107 11 0	22	
Queanbeyan .....	Stone, I. W. brick.	1,250	9	4	13	96	NIL.	2 0 0	1	1897	157	130	15	....	302	50	79	95	....	29	253	....	42	2.5	23.5	99 10 0	....	
1898	177	145	96	....	....	....	....	....	....	1898	177	145	47	....	369	50	84	160	45	25	364	....	55	3.1	21.4	110 14 0	NIL.	
Scone .....	Brick	2,500	22	..	22	114	NIL.	2 0 0	.....	1897	372	290	....	17	649	75	158	328	6	92	654	....	177	9.4	19.3	64 5 0	....	
1898	419	793	114	....	....	....	....	....	....	1898	419	793	....	13	1,225	75	150	338	378	32	971	254	199	9.0	17.0	65 10 0	NIL.	
Singleton .....	....	....	32	..	32	..	..	..	....	1897	141	279	48	4	7459	946	27	112	400	31	84	654	70 Hosp. 31 Asy.	....	15.0	41.0	38 0 0	160 Asy.
1898	273	280	32	....	....	....	....	....	....	1898	273	280	125	....	678	33	141	373	12	61	620	1,694	93 Hosp. 16 Asy.	....	16.0	42.0	32 14 0	504 "
Silverton .....	....	....	15	..	15	..	..	..	....	1897	42	80	69	6	207	137	67	200	....	3	407	....	34	1.1	15.0	375 18 0	....	
1898	....	....	15	....	....	....	....	....	....	1898	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sofala .....	....	....	4	..	4	..	..	..	1	1897	80	23	1	3	107	....	26	38	64	5	123	....	12	0.58	17.7	212 8 0	....	
1898	73	82	4	....	....	....	....	....	....	1898	73	82	7	8	115	6	22	62	19	4	103	100	8	0.4	18.3	250 11 0	NIL.	
Tamworth .....	Brick	4,500	20	7	27	167	1	10 2 36	4	1897	443	884	165	9	1,003	100	295	685	87	89	1,150	....	235	21.1	36.3	54 16 0	....	
1898	397	542	167	....	....	....	....	....	....	1898	397	542	134	....	1,103	100	319	661	32	82	1,094	....	292	17.5	25.0	62 9 0	NIL.	
Temora .....	....	....	14	6	20	..	..	..	4	1897	267	886	7	4	625	100	208	407	188	80	978	....	144	9.2	....	88 2 0	57	
1898	578	256	20	....	....	....	....	....	....	1898	578	256	20	3	865	85	169	316	160	72	802	....	115	6.3	17.5	103 15 0	43	

CXVIII

\* Attendances. † Includes funds handed over by Singleton Ladies' Relief Society on amalgamation. ‡ Includes treatment of out-patients. § Also an Asylum for Infirm and Destitute. ¶ Includes several minor improvements. I.W.—Infectious ward.

COUNTRY HOSPITALS—continued.

Name.	Con-struction of Main Buildings.	Cost of Buildings.	Number of Beds provided for.			Building Cost per Bed.	Private Wards.	Area of Site. a. r. p.	Nursing Staff—Including Matron, Nurses, Probationers, and Wardsmen.	Year.	Revenue.					Expenditure.					In-vested Funds at end of 1898.	Number of In-patients treated.	Average daily number in hospital.	Average stay of discharged patients.	Average Annual Cost per bed.	Number of Out-patients treated (Individuals).				
			Ordinary Cases.	Infectious Cases.	Total.						From Government.	Subscrip-tions and Donations.	From patients.	Interest on invested Funds.	Other Re-ceipts.	Total.	Medical Officer's Salary and Fees.	Other Salaries and Wages.	Main-tenance.	Build-ings and Repairs.							Other.	Total.		
Tenterfield .....	Brick	£ 1,250	10	2	12	104	Nil..	5 0 0	2	1897 1898	87	114	16	46	12	275	50	80	124	38	52	344	1,680	49 62	2.9	16.0 19.0	134 4 0	Nil. Nil.		
Tibooburra .....	.....	.....	7	..	7	..	.....	.....	2	1897 1898	250 630	228 265	.. 22	.. ..	3 ..	476 917	205 205	148 140	180 208	51 ..	37 41	711 699	..	43 41	3.2 3.0	29.7 24.0	220 4 0 220 18 0	59 50		
Urana .....	Brick	1,600	9	7	16	100	Nil..	0 0 0	1	1897 1898	302 308	348 202	16 12	44 31	12 3	717 556	150 187	125 138	243 341	48 28	52 56	613 750	1,173	113 143	8.1 9.4	26.1 19.3	73 10 0 79 12 0	85 74		
Vegetable Creek, Emmaville.	Wood	1,800	10	..	10	180	Nil..	12 0 0	2	1897 1898	74 130	46 132	18 4	.. ..	2 ..	140 266	12 12	108 95	86 101	3 2	33 50	237 280	912	29 36	1.7 1.96	23.0 19.9	139 2 0 133 1 0	Nil.		
Walcha .....	Brick, I.W. iron.	1,751	6	2	8	210	Nil	6 3 39	2	1897 1898	170 125	92 256	32 21	3 3	.. ..	297 405	50 50	105 102	96 159	1 82	26 28	278 421	100	37 62	2.6 3.3	36.0 ..	107 3 0 127 9 0	Nil.		
Warialda .....	Brick and wood.	1,000	9	3	12	133	Nil	10 0 0	3	1897 1898	293 164	163 183	56 42	.. 9	100 ..	617 403	126 125	75 90	66 62	.. 0	27 32	293 315	600	45 54	3.0 2.2	20.5 15.0	97 11 0 141 4 0	19 30		
Wagga Wagga .....	Brick	2,000	28	5	33	61	Nil	1 1 0	6	1897 1898	548 542	445 477	88 104	12 44	.. 8	1,093 1,175	100 100	274 334	359 724	22 297	97 77	832 1,532	450	371 469	12.3 21.2	18.1 17.0	66 14 0 72 8 0	..		
Walgett .....	Brick and wood.	..	13	..	13	..	1 3 0 0	..	3	1897 1898	358 379	403 330	54 64	.. ..	3 4	823 777	219 341	170 199	231 297	36 14	112 101	738 952	400	107 143	6.3 6.9	16.0 17.5	116 4 0 130 0 0	82 30		
Warren .....	Wood and iron.	1,686	8	3	11	153	Nil..	10 0 0	2	1897 1898	280 240	240 304	40 57	.. ..	.. 4	510 605	100 92	118 115	214 240	41 17	38 57	509 521	..	97 123	4.5 5.8	18.0 17.7	103 15 0 85 18 0	125 72		
Wallsend .....	Brick	4,000	22	..	22	200	..	3 0 0	5	1897 1898	943 689	883 531	58 45	.. ..	.. ..	1,384 1,265	..	270 392	569 626	60 238	87 172	992 1,398	..	186 184	16.4 14.4	29.0 23.4	64 0 0 80 7 0	Nil.		
Wellington .....	Brick	Not known.	10	3	13	..	Nil..	5 0 0	2	1897 1898	151 168	153 154	47 25	*4 ..	.. ..	360 347	70 70	108 84	230 168	.. 64	41 24	449 400	..	90 83	3.5 3.0	14.7 15.0	128 5 0 132 12 0	Nil.		
Wentworth .....	Brick	3,000	15	6	21	143	Nil..	10 0 0	2	1897 1898	207 312	312 248	11 4	.. ..	3 ..	693 664	225 225	162 138	165 178	9 39	49 53	601 682	82	98 107	5.9 5.4	17.7 17.3	101 17 0 113 3 0	100		
Wilcannia .....	Stone, I.W. wood.	4,600	25	12	37	122	1 4 3 10	..	2	1897 1898	500 866	594 607	72 136	*35 4	9 37	1,210 1,650	150 223	300 411	465 755	92 238	121 211	1,128 1,838	..	116 164	9.2 13.5	23.9 29.7	118 7 0 118 10 0	185 119		
Windsor .....	Brick	..	50	6	56	..	Nil..	..	3	1897 1898	222 227	165 167	21 01	*339 *316	3 6	755 767	..	105 213	439 586	.. 93	125 84	769 926	4,700	121 148	27.0 24.0**	63.6 57.0	25 19 0 20 17 0	25 39		
Wollongong .....	Brick, I.W. wood.	42,250	12	7	19	..	Nil..	1 0 0	1	1897 1898	189 125	129 127	39 41	64 55	.. ..	412 348	..	165 178	185 150	76 62	14 24	440 404	1,500	65 53	2.8 3.1	19.0 21.0	130 6 0 130 5 0	11 Nil.		
Wyalong .....	Wood	565	3	..	3	71	Nil..	17 0 0	4	1897 1898	323 278	189 320	24 11	.. ..	.. ..	536 609	100 100	225 176	404 252	84 ..	91 58	904 615	..	114 112	9.0 8.6	27.0 27.0	94 7 0 70 1 0	Nil.		
Yass .....	Brick	3,500	14	2	16	219	1 4 2 0	..	4	1897 1898	221 481	254 418	140 162	113 101	.. 3	758 1,116	104 130	133 185	339 598	27 773	90 56	693 1,737	1,900	134 145	8.1 9.1	22.9 22.8	85 10 0 107 1 0	..		
Young .....	Brick	No record	12	4	16	..	Nil.	1 0 30	3	1897 1898	505 214	446 286	72 40	43 63	.. ..	1,065 593	73 75	213 192	313 255	46 12	84 105	784 669	1,773	134 137	9.8 9.0	20.2 21.0	72 16 0 73 8 0	Nil.		
Camden .....	(Rented house.)	..	7	..	7	..	..	..	Opened in 1899.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
New Angledool ..	Iron	450	6	..	6	75	..	1 0 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
<b>Total Country</b> .....	.....	.....	1,543	351	1,894	..	..	.....	.....	1897 1898	31,110 84,957	23,894 31,209	6,021 7,206	2,350 2,249	832 483	70,349 76,095	8,026 8,805	19,090 20,442	29,870 32,551	7,932 7,937	6,240 6,532	71,758 76,347	56,078	12,974 14,601	..... .....	..... .....	..... .....	..... .....	..... .....	

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\* Includes rent. † Includes land and furniture. ‡ Includes treatment of outpatients. § Includes several minor improvements. || Also an asylum for infirm and destitute. ¶ These totals include the figures for 1897 in the cases of Jerilderie, Silvertown, and Tenterfield. \*\* Asylum. †† Hospital. I.W.—Infectious ward.

SUMMARY.

Name	Con-struction of Main Buildings.	Cost of Build-ings.	Number of Beds provided for.			Building Cost per Bed.	Private Wards.	Area of Site.	Nursing Staff— Including Matron, Nurses, Pro- bationers, and Wards- men.	Year.	Revenue.					Expenditure					In- vested Funds at end of 1898.	Number of In- patients treated.	Average daily number in hospital.	Average stay of dis- charged patients.	Average Annual Cost per bed.	Number of Out- patients treated (Indi- viduals).											
			From Govern- ment.	Subscrip- tions and Donations.	From patients.						Interest on invested Funds.	Other Receipts.	Total.	Medical Officer's Salary and Fees.	Other Salaries and Wages.	Mainten- nance.	Build- ings and Repairs.	Other.	Total.																		
Metropolitan—											£	£	£	£	£	£	£	£	£	£	£	£	£	£													
Subsidised...	.....	....	..	..	..	..	..	.....	1897	29,687	†18,608	5,050	2,499	642	52,081	18,110	22,041	5,327	4,323	40,510	....	9,184	....	....	.....	....											
Government..	.....	....	..	..	..	..	..	.....	1897	14,974	....	....	....	....	14,974	2,445	8,198	2,724	1,067	14,974	....	2,508	....	....	.....	....											
Country.....	.....	....	..	..	..	..	..	.....	1897	31,110	29,986	6,021	2,350	882	70,349	8,026	19,080	29,870	7,932	6,240	71,758	....	12,974	....	....	.....	....										
Total ....	.....	....	..	..	..	..	..	.....	..	75,771	†40,589	11,071	4,849	1,624	137,404	8,026	39,654	60,109	15,983	12,170	136,542	....	24,664	....	....	.....	....										
Metropolitan—																																					
Subsidised....	.....	....	713	27	740	..	..	.....	1898	27,488	‡10,704	‡6,014	1,700	1,258	52,384	18,451	23,220	2,089	3,507	48,167	83,273	9,331	....	....	.....	....											
Government..	.....	....	227	59	286	..	..	.....	1898	20,910	....	....	....	....	20,910	3,884	10,324	4,008	1,704	20,910	....	2,694	....	....	.....	....											
Country.....	.....	....	1,543	351	1,894	..	..	.....	1898	34,957	31,200	7,206	2,249	483	76,095	8,805	20,442	32,531	7,957	6,532	76,347	56,678	14,501	....	....	.....	....										
Total ...	.....	....	2,483	437	*2,920	..	..	.....	..	83,365	‡47,964	‡12,820	4,009	1,741	140,889	8,865	42,777	66,104	15,935	11,743	145,424	189,951	26,526	....	....	.....	....										

\* Includes beds in one metropolitan and two country hospitals opened in 1899.  
 ‡ A legacy of £7,850 in addition was received by the Children's Hospital and invested.

† Includes bequests (£3,165) received by Sydney and Prince Alfred Hospitals and invested.  
 § Includes bequest (£7,203) received by Sydney and Prince Alfred Hospitals and invested.

## Appendix F.

## HOSPITAL REFORM ASSOCIATION (ENGLAND).

## PROPOSALS FOR THE REFORM OF OUT-PATIENT AND IN-PATIENT DEPARTMENTS.

Mr. T. Garrett Horder said that in drawing up any scheme for the better administration of medical relief in our hospitals, infirmaries, and dispensaries, we must bear in mind the necessity of carefully avoiding any measures that would in any way lessen the usefulness of these institutions in relieving cases of urgent illness.

The points which we should aim at are briefly the following:—

1. To lessen the large number of people who now resort to the hospitals when suffering from minor or trivial ailments.
2. To restrict treatment, both in the in-patient and in the out-patient departments, to people who are not in a position to pay private practitioners.
3. To abolish subscribers' recommendations.
4. To limit the number of new cases to be dealt with by each medical officer in the out-patient department.
5. To bring about a more intimate and cordial relationship between the hospital staff and the practitioners resident in the district surrounding each hospital.

It seems manifestly impossible to draw up any scheme which shall prove suitable to all hospitals. It will be our endeavour, therefore, to sketch out schemes which will suit

- A. The large general hospitals.
- B. The smaller general hospitals.
- C. The special hospitals.

## A.—THE LARGE GENERAL HOSPITALS.

## I.

It cannot be denied that at the present time most hospitals treat a very large number of people in their casualty department whose illnesses are of a very trivial description. Formerly that department was used for the treatment, as its name implies, of casualties; that is, cases of accidents and of sudden and acute illness. It has been argued by some prominent hospital managers that it is difficult to define exactly what are trivial and what are not trivial cases. In the great majority of instances, however, no such difficulty exists. A skilled resident medical officer should be appointed at all the large general hospitals to deal with such cases. This idea has been successfully carried out in St. George's and at St. Thomas's Hospitals for some years past, and quite recently St. Mary's Hospital has adopted a similar plan.

## II.

The Hospital Reform Association has urged the necessity of restricting all out-patients to those bringing a recommendation from a medical man, and although that particular recommendation has not met with much support from members of the medical staffs, yet it would seem on the whole that it is the best, easiest, and simplest way of limiting hospital treatment to those who are in need of it. To meet the objections which have been made to that plan it will be as well to propose some modification of it.

In dealing with this question we have to consider the eligibility of patients from two points of view: First, do the patients stand in need of hospital treatment; and, secondly, are they unable to pay for proper treatment outside the hospitals? And, again, these patients must be subdivided into two classes: (1) those suffering from such ailments as are ordinarily treated by general practitioners; and (2) those suffering from special disorders (for example, ophthalmic, aural, gynecological cases) which are not generally treated by general practitioners. To make this more clear it may be said that whereas a patient suffering from chronic bronchitis would be ineligible for hospital treatment, a patient suffering from cataract would be perfectly eligible.

Now the question arises: What should be the *modus operandi*? Should the medical fitness of a patient be decided first, or should the hospital authorities first make inquiries into the financial fitness? This is of great importance, because it is perfectly manifest that no inquiry that is conducted at the hospital will prove of any real use. To make certain that the patients are fit and proper persons for gratuitous treatment it is absolutely necessary in the majority of instances for the inquiry officer to visit the homes of the patients. As it might happen in some cases that this delay would prove hurtful, the best plan would be that the resident physician should first decide the medical fitness of patients, and after they have received first aid to refer them to the inquiry officer for particulars as to their circumstances.

The suggestions made by Dr. Turner in the December number of the *St. Thomas's Hospital Gazette* should be adopted—namely, (1) that a notice should be placed in the out-patients' room to the effect that patients bringing notes from medical men should receive first consideration; and (2) that the medical men residing in the district of the hospital should be furnished with notes by the hospital authorities.

In the case of patients coming from a distance it should be made an absolute rule that they should bring a note from a medical man. That hospitals are much abused by this particular class is well known; and it is obvious that the services of an inquiry officer could not be utilised in such cases. Many instances have come under the notice of the Hospital Reform Association in which people suffering from some trivial ailment have spent as much money in travelling to a hospital as would furnish a specialist with his ordinary consulting fee.

With respect to in-patients, except in cases of real urgency, hospital managers should make inquiries before they are admitted. Such a regulation would not apply to patients recommended by medical men.

The suggestion of the Charity Organisation Society with regard to cases obviously destitute—namely, that they should be referred to the Poor Law—is a good one, and one that would benefit the patients. At the same time the existence must be admitted of a class of people who, while they are too poor to obtain proper nourishment, are yet of a class whom it would be cruel to pauperise. For this particular class the resources of the Samaritan Society should be available.

## III.

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## III.

We are given to understand that at many of the large general hospitals in the metropolis patients without subscribers' letters have the same facilities for treatment as those supplied with such letters. It will be found, I venture to say, that the hospital funds will not suffer to any appreciable extent if this system of recommendation by subscribers is done away with. There can be no doubt whatever that the system leads to a good deal of abuse, and that as long as it remains in operation it will be almost impossible to check that abuse. However stringent the regulations made by hospital authorities for the admission of patients, it will be found that subscribers will certainly fail to co-operate with those authorities in seeing them carried out.

## IV.

It may be said that a regulation as to the limitation of the number of new cases has answered so well at St. George's and at St. Thomas's Hospitals that it would answer equally well at other large hospitals. The resident physician would have the selection of cases, and naturally would select those which, in his opinion, stood most in need of immediate treatment. It must not be forgotten that, as a rule, the majority of out-patients suffer from chronic illnesses, and therefore do not suffer any ill-effect from having their treatment delayed for a few days.

## V.

If the plan recommended were loyally carried out by hospital managers, they (the managers) would find a disposition on the part of medical men to take a greater interest, not only in the medical work, but in the financial work in the hospitals. Nothing but good can result from the establishment of a more cordial relationship between the hospital physicians and surgeons and the outside practitioners. The subject of a wage limit for hospital patients has not been mentioned, because it is believed that such a limit is liable to act harshly. At the same time, the hospital authorities should come to some agreement amongst themselves on the subject—an agreement which would allow their inquiry officers some discretion in exceptional instances.

## B.—THE SMALLER GENERAL HOSPITALS.

It is obvious that the plan recommended could not be carried out in its entirety by small provincial hospitals, and it is therefore necessary to propose some alternative plan. I have been much impressed with the system adopted at Oldham, Sunderland, and Dorchester, and they deserve the consideration of managers of other country hospitals.

In Oldham Infirmary patients have to appear before what is called an Admission Committee, and have to prove to the satisfaction of that committee that they are not in a position to pay for treatment. The work of the committee is made easier by the fact that the benefits of the institution are restricted to inhabitants of the borough. The fact that out of a population of about 130,000, only 4,400 availed themselves of the benefits of treatment in the out-patient department in the year 1892 proves to my mind that the system adopted there is one to be commended. And belief in it is strengthened when we find that the working classes of that town subscribe something like £5,000 a year to the funds.

In the case of Sunderland Infirmary it appears that the out-patient department is limited to the treatment of in-patients who have been discharged, but who still require further attention, and to cases of accidents and sudden illness. In Sunderland, as in Oldham, the working classes subscribe large sums towards the support of the institution. In Dorchester, I am informed that the system of examination by an Admission Committee before treatment works well, and that little abuse exists.

Supposing that small provincial hospitals adopted the plan pursued at Oldham and Dorchester, I would suggest that the medical officers should have instructions to reject any cases which, in their opinion, were not in need of hospital treatment. In Sunderland, cases that appear unsuitable from a medical point of view are referred to the Provident Dispensary.

## C.—SPECIAL HOSPITALS.

It is plain that another system must be adopted for these. We have our opinions respecting the need of such a large number of hospitals for special diseases, but we are bound to recognise the fact that they exist, and that they are, as is proved by the report on them of the Hospital Reform Association, much abused. The subject teems with difficulties, and we feel that it is only by the co-operation of the medical officers attached to them that we can possibly hope to overcome these difficulties. I would venture to suggest that all patients should be requested, before being treated, to bring a note from a medical man stating that the patient required special treatment, and was not in a position to pay the specialist's fee for that treatment. The effect of such a regulation would be to diminish the number of people who now resort to such hospitals, and to bring the specialists into closer relation with the general practitioner. It must, I think, be admitted that a large number of persons resort to special hospitals who could be treated quite as efficiently by general practitioners. At the same time, the fact must be recognised that in some instances patients who require the aid of specialists are not recommended by their medical attendants to consult them.

Looking at the question from an all-round point of view, I feel that it is very desirable to bring the specialists into a closer relationship with the family doctors; I feel also that there is a large and deserving class of persons who, although well able to pay a moderate fee, are not well enough off to pay the ordinary consulting fees of specialists. We therefore think that to avoid the abuse of special hospitals on the one hand, and on the other hand to make provision for the class indicated, the medical officers attached to special hospitals in the metropolis and in the large provincial towns should take this matter into their consideration, and see whether they could not adopt some means whereby people could have the benefit of their advice and treatment on payment of a moderate fee. It should be made a *sine qua non* that people who wished to take advantage of such a scheme should bring a letter from their own medical man, stating that they were not in a position to pay the ordinary consulting fee. I submit that this would be far preferable to the present system adopted at most of the special hospitals where fees varying in amount are extracted from patients, no portion of which enriches the pockets of the medical staff.



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All hospital treatment should be free, and should be restricted to those who are not able to pay for such treatment. It is altogether wrong to mix up business with charity; and if hospitals find they are not in a position to treat all the patients who resort to them, the managers should take steps to reduce the number of patients. The idea of charging small sums for medicines or appliances is altogether repugnant to the name of charity; it is, moreover, unfair to the main body of the profession, and leads many members of it to adopt plans for procuring patients which scarcely tend to enhance the dignity of their calling.

## RECOMMENDATIONS.

1. That in the casualty department of our large general hospitals only cases of urgent importance should be attended to.
2. That in the out-patient department patients bringing notes from medical men should have a prior claim to treatment. That a resident physician should be appointed whose duty it shall be to see all out-patients in the first instance, and select those that require immediate treatment, and decide which do not require hospital treatment. That after patients have received "first aid" their circumstances shall be inquired into by a competent officer. That the honorary medical officer shall not be required to treat more than twenty new cases at one sitting.
3. That all in-patients, with the exception of cases of accidents, or of great emergency, should be recommended for treatment by medical men, and that before being admitted their circumstances should be inquired into by an officer specially retained for that purpose.
4. That hospitals should have the power of receiving adequate fees for the treatment of people who have met with accidents, and whose position in life warrants such an action being taken by the hospital authorities.
5. In the case of smaller general hospitals, that the plan adopted at Oldham and Dorchester be recommended for trial.
6. That both in the large general hospitals, and in the smaller ones, patients coming from districts outside should be requested to bring notes from medical men before being treated.
7. In the case of special hospitals: (a) That payments by patients should cease; (b) that the eligibility for free-treatment should depend on the recommendation of private practitioners; (c) that some provision should be made for people who are in a position to pay a moderate fee, but are not in a position to pay the ordinary fee of specialists.

## RECOMMENDATIONS OF THE HOSPITAL REFORM ASSOCIATION.

## HOSPITAL REFORM.

1. That in the casualty department of the general hospitals only cases of urgent importance should be attended to.
2. That in the out-patient department patients bringing notes from medical men should have, *ceteris paribus*, a prior claim to treatment. That a resident physician should be appointed whose duty it shall be to see all out-patients in the first instance, and select those that require immediate treatment, and decide which do not require hospital treatment. That after patients have received "first aid" their circumstances shall be inquired into by a competent officer. That the honorary medical officer shall not be required to treat more than twenty new cases at one sitting.
3. That the circumstances of all in-patients, with the exception of cases of accidents, &c., should be carefully inquired into before admission.
4. That in the case of well-to-do people who are admitted to hospitals in consequence of accidents, &c., the hospitals should have the power at their discretion of recovering adequate fees for attendance.
5. In the case of small provincial hospitals, that the plan adopted at the Oldham and Dorchester Infirmary be recommended for trial.
6. That, both in the large general hospitals and in the smaller ones, out-patients coming from outside districts should be requested to bring notes from medical men before being treated.
7. In the case of special hospitals: (a) That payments by patients should cease; (b) that the eligibility for free treatment should largely depend on the recommendation of private practitioners; (c) that some provision should be made outside the hospitals for people who are in a position to pay a reduced fee, but are not in a position to pay the ordinary fee of specialists.

Cardiff, Feb. 19th.

T. GARRETT HORDER.

## Appendix G.

## VICTORIAN HEALTH ACT, 1890.

*Private Hospitals.*

153. The Governor in Council may from time to time make, alter, and revoke Regulations for the inspection, drainage, good management, and sanitary regulation of all private hospitals or houses, buildings, or places other than institutions in receipt of aid from the State in which persons are received and lodged for medical or surgical treatment or care.

The Governor in Council may, by such Regulations, require registration of such hospitals, houses, buildings, or places, and may also provide for the cancellation of such registration where necessary.

The Governor in Council may prescribe by such Regulations the use of a proper register for the registration of all cases admitted into or treated in any such hospital, house, building, or place, and for the inspection of such register by the medical inspector, or by any officer of the Board, or by any person expressly authorised thereto by the Board.

After the making of such Regulations, any person opening, occupying, or conducting any such hospital, house, building, or place, without having previously registered the same, or continuing to occupy or conduct any such hospital, house, building, or place, after registration thereof has been cancelled, shall be guilty of an offence against this Act.

## HEALTH ACT, 1890.

REGULATIONS FOR THE REGISTRATION, INSPECTION, DRAINAGE, GOOD MANAGEMENT, AND SANITARY  
REGULATION OF PRIVATE HOSPITALS.*At the Executive Council Chamber, Melbourne, the first day of September, 1890.*

Present:

His Excellency the Governor.

Mr. Gillies,	Dr. Pearson,
Mr. Deakin,	Mr. Bell,
Mr. Cuthbert,	Mr. Davies,
Mr. Patterson.	

WHEREAS by section 158 of the Health Act 1890, the Governor in Council may from time to time make, alter, and revoke Regulations for the inspection, drainage, good management, and sanitary regulation of all private hospitals or houses, buildings, or places other than institutions in receipt of aid from the State, in which persons are received and lodged for medical or surgical treatment or care: And whereas the Governor in Council may by such Regulations require the registration of such hospitals, houses, buildings, or places, and may also provide for the cancellation of such registration where necessary: And whereas the Governor in Council may prescribe by such Regulations the use of a proper register for the registration of all cases admitted into or treated in any such hospital, house, building, or place, and for the inspection of such register by the Medical Inspector or by any officer of the Board or by any person expressly authorised thereto by the Board: Now therefore the Governor, with the advice of the Executive Council, pursuant to the provisions of the said section 158 of the said Health Act, 1890, doth make the following Regulations, that is to say:—

1. In these Regulations, "Private Hospital" shall mean any house, building, or place other than an institution in receipt of aid from the State in which persons (hereinafter called inmates) are received and lodged, or in which it is intended that they shall be received and lodged, for medical or surgical treatment or care.

2. The provisions of the 232nd section of the Health Act, 1890, shall apply to private hospitals, save in respect of inspection, as hereinafter provided.

3. Every person who occupies or conducts any private hospital in existence on the 5th day of September, 1890, shall, on or before the 1st day of October, 1890, and in each subsequent year on or before the 1st day of January, make and forward to the Council of the city, town, borough, or shire in which such hospital is situated, or if he is a legally-qualified medical practitioner, to the Board of Public Health (hereinafter called the Board), an application for registration in the form hereunder written:—

*Application for Registration of a Private Hospital.*

To the Council of  
qualified medical practitioner) To the Board of Public Health.  
Gentlemen,

*or (if the applicant be a legally-*

I desire to have a private hospital registered in accordance with the provisions of the Health Act, 1890, and with the particulars given hereunder—

Situation of premises ... ..	
General description of premises— <i>area of ground, materials of building (brick, wood, &amp;c.), number and size of rooms, number of stories, method of drainage.</i>	
Maximum number of inmates* to be lodged at one time in each room or ward.	
Purpose or purposes for which inmates are to be admitted ( <i>e.g.</i> , for surgical or for medical treatment, or for nursing, or for treatment of particular diseases).	
Name of medical attendant ... ..	
Period of time for which registration is desired ...	Year (or less period) commencing of 189 day
Signature of occupier or conductor— Address— Date—	

\* That is, persons lodged for medical or surgical treatment or care.

4. Every person who, after the 5th day of September, 1890, proposes to open any private hospital, or to occupy or conduct one, shall, before opening, occupying, or conducting such private hospital, apply for the registration thereof, as in the next preceding section.

5. Upon the receipt by the Council of an application for registration of a private hospital, they shall direct the Health Officer to make inquiry as to the application, and report thereon to the Council; and if the application be for first registration they shall inform the Board whether or not they consider that the application should be granted.

6. If a Council recommend an application for registration, and the Board confirm such recommendation, or if the Council approve of any application for re-registration, the Council shall cause to be registered or re-registered (as the case may be), such private hospital, subject to any conditions that may be imposed

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imposed by the Council or the Board; and these conditions, together with the particulars set forth in the Schedule appended to these Regulations, shall be entered in a book to be kept for the purpose. A copy of the particulars and conditions of registration shall be furnished to the person registered, and shall be produced by him to any person authorised to inspect the premises.

7. If the application for registration be made to the Board, as provided in the third of these Regulations, the Board shall, after inquiry, order such registration or not, as they deem fit; and if the registration be ordered, the secretary shall enter in a book to be kept for the purpose the particulars set forth in the Schedule to these Regulations. A copy of the particulars and conditions of registration shall be furnished to the person registered, and shall be produced by him to any person authorised to inspect the premises.

8. If a Council recommend that an application for registration be not granted, the applicant may appeal to the Board, who may order such registration or not, as they deem fit.

9. Every person conducting a private hospital shall enter in a book (hereinafter called the case-book) particulars concerning all inmates received into such hospital. In the case-book there shall be recorded for each inmate the full name, age, sex, and address (usual and last), whether the inmate is married or single, also a short history of the inmate while in the hospital, giving in particular the date of admission, the nature of any disease manifest at the time of admission or afterwards, any operations performed, with the name of the operator or operators, and the result of such operation or operations, and the date when the inmate left the hospital, or, in the event of death having occurred, the date of such death. There shall be recorded in the case-book also, in case of confinement, the date and a short history of such confinement, the result of such confinement, the sex and condition of the infant, both at time of delivery, and during its subsequent stay in the hospital. In all cases in which an inmate has been under the professional care of a medical practitioner, or under the charge of a nurse, there shall be recorded also the name of the medical attendant and of the nurse.

10. In the event of the occurrence of a death, a still-birth, or of a case of dangerous, contagious, or infectious disease in any private hospital, notice thereof shall be given in writing within twelve hours to the Council of the district and to the Board.

11. The Council shall cause the premises of every private hospital in its district to be inspected at least once in every three months, and shall report on the sanitary condition, and mode of sanitary regulation of such hospital to the Board. The case-books of private hospitals shall be open to inspection by the medical inspector, or any officer of the Board, or any person expressly authorised thereto by the Board.

12. Any Council, or the Board, may cancel the registration of any private hospital, if not satisfied as to its sanitary condition, or as to its mode of sanitary regulation, or as to its mode of management, of dieting, of nursing, or of treatment of any inmate or inmates, or if any of the conditions of registration is not complied with, or is violated, or if any alteration as required by the Council or by the Board (as the case may be) is not carried out within a time fixed in any notice or order: Provided that if a Council decide to cancel the registration of any private hospital, the registered occupier or conductor may appeal to the Board, who may affirm or rescind such cancellation, and whose decision shall be final.

## Schedule.

Sections 6, 7.

*Register of Private Hospitals.*

Name of occupier or conductor—	
Address of occupier or conductor—	
Situation of the private hospital—	
Total area of premises and grounds—	
Materials of which the private hospital is constructed—	
Designation of rooms allowed by the Council or by the Board to be used as sleeping apartments for inmates (consecutive letters of the alphabet being employed as the means of designation), with number of cubic feet in each *—	(A) (B) (C) (D)
Designation of rooms allowed by the Council or by the Board to be used as sleeping apartments for persons other than inmates (consecutive letters of the alphabet being employed as the means of designation), with number of cubic feet in each *—	(E) (F) (G) (H)
Maximum number of persons (inmates or others) allowed by the Council or by the Board to sleep at one time in each room—	room (A) or (B)
Other conditions of registration †—	ward (C)
Purpose or purposes for which inmates are to be lodged—(1) Surgical treatment; (2) medical treatment; (3) special purpose—for instance, for care of cases of delivery; (4) cases of dangerous infectious or contagious disease—	
Date of application for registration—	
Date of registration—	from day of 189 .
Period of registration—	till the day of 189 .

And the Honorable Alfred Deakin, Her Majesty's Minister of Health for Victoria, shall give the necessary directions herein accordingly.

G. WILSON BROWN,  
Clerk of the Executive Council.

\* These letters shall be painted on the doors of the several wards of which they are used as means of designation.

† Here enter any conditions imposed in regard to other accommodation, drainage, sanitary regulation, fire-extinguishing appliances, &c.

## Appendix H.

Medical Superintendent of the Sydney Hospital to The Secretary, Royal Commission on Public Charities.

Dear Sir,

Sydney, 24 July, 1899.

The figures contained in the enclosed are as nearly correct as I can ascertain. As to the increased accommodation and cost I can form no opinion; all this would be determined by the fact as to whether the nurses would each occupy a single room, or whether there would be several nurses in each room. There would also be need of accommodation for additional servants.

I am, &c.,

W. C. McCLELLAND,  
Medical Superintendent.

Extra No. of Nurses and increased cost by reduction of hours of duty to ...	8 hours.	9 hours.
Extra No. of Nurses.....	20	10
Increased cost of wages and maintenance .....	£1,000	£500

Medical Superintendent of the Prince Alfred Hospital to The Secretary, Royal Commission on Public Charities.

Dear Sir,

Sydney, 22 July, 1899.

In reference to your letter of 12th inst., I have the honor to inform you that the increased cost that would be incurred by reducing the nurses' daily hours of duty at this hospital to eight hours has been computed, approximately, as follows:—

Extra number of Ward Sisters .....	2
„ Nurses of all Grades .....	21
Total.....	23

Increased cost of wages—£725. (The present cost is about £1,900 per annum.)

Increased cost of maintenance (which averages at present 8s. 1d. per head per week)—£485.

Increased cost of building accommodation, &c., reckoned at £3,000, interest 5 per cent.—£150.

Total cost, therefore, would be—£725, £480, £150—£1,355 per annum.

This computation allows for the same conditions regarding holidays as obtains at present, viz., three weeks holiday per annum, with one day fortnightly, and one day and night monthly.

It is estimated that under a nine-hour system the cost would be almost as great as that given above, because of the difficulty of equalizing the shifts, and the consequent loss of time involved.

I am, &c.,

E. MAYNARD PAIN,  
Medical Superintendent.

## Appendix I.

RETURNS FURNISHED BY MR. W. H. P. CHERY, GOVERNMENT STATISTICIAN'S OFFICE.

NUMBER of Applicants for Government Orders to Hospitals and Asylums, according to Birthplaces.

Birthplaces of Applicants.	Total Number of Applicants each year.						Increased or Decreased Number of Applicants each year compared with previous year.										Quinquennial Period, 1894—1898.	
							Total.					Per Cent.						
	1893.	1894.	1895.	1896.	1897.	1898.	1894.	1895.	1896.	1897.	1898.	1894.	1895.	1896.	1897.	1898.	Average Annual Number of Applicants.	Proportion of the Total Orders in each given division.
	Increase or Decrease on 1893.	Increase or Decrease on 1894.	Increase on 1895.	Increase or Decrease on 1896.	Increase or Decrease on 1897.	Increase or Decrease on 1893.	Increase or Decrease on 1894.	Increase on 1895.	Increase or Decrease on 1896.	Increase or Decrease on 1897.								
New South Wales .....	2,610	2,697	3,082	4,233	4,053	4,516	87	38.5	1,151	(-) 130	463	3.3	14.2	37.3	(-) 4.2	11.4	3,716	33.0
Victoria .....	234	252	230	437	354	369	18	(-) 13	198	(-) 83	15	7.7	(-) 5.2	82.8	(-) 19.0	4.5	330	3.0
Queensland .....	135	130	132	165	147	179	(-) 5	2	33	(-) 18	32	(-) 3.7	1.5	25.0	(-) 10.1	21.8	150	1.4
South Australia .....	37	56	44	59	56	58	19	(-) 12	15	(-) 3	2	51.3	(-) 21.4	34.1	(-) 5.1	3.4	55	0.5
Western Australia .....	1	3	1	7	9	8	2	(-) 2	6	2	(-) 1	200.0	(-) 67.0	600.0	29.0	(-) 11.0	6	0.1
Tasmania .....	95	80	108	133	118	112	(-) 15	28	25	(-) 15	(-) 6	(-) 15.8	35.0	23.1	(-) 12.8	(-) 5.1	110	1.0
New Zealand .....	122	117	141	179	165	178	(-) 5	24	38	(-) 14	14	(-) 4.1	20.5	27.0	(-) 8.0	8.0	156	1.4
Total, Other Australasian Colonies...	624	633	665	950	849	904	14	27	315	(-) 131	55	2.2	4.2	47.4	(-) 13.4	6.5	807	7.4
England and Wales .....	2,426	2,573	2,681	3,161	2,909	3,047	147	108	430	(-) 252	138	6.1	4.2	14.2	(-) 8.0	4.7	2,674	20.2
Scotland .....	539	567	627	722	752	723	28	60	95	30	(-) 29	5.2	10.6	15.1	4.1	(-) 3.8	678	6.2
Ireland .....	1,725	1,756	1,766	2,037	1,940	1,908	31	10	271	(-) 97	(-) 32	1.8	0.5	15.4	(-) 4.7	(-) 1.6	1,882	17.2
Total, United Kingdom .....	4,690	4,896	5,074	5,920	5,601	5,678	206	178	846	(-) 319	77	4.4	3.6	16.7	(-) 5.4	1.4	5,434	49.6
All other Countries .....	989	903	926	1,118	1,000	1,075	14	23	196	(-) 118	75	1.5	2.5	21.3	(-) 10.6	7.5	1,005	9.1
Total .....	8,813	9,134	9,747	12,251	11,503	12,173	321	613	2,504	(-) 748	670	3.6	6.7	25.7	(-) 6.1	5.8	10,962	100.00

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## DISTRIBUTION of Government Orders, 1897 and 1898.

How Distributed.	1897.	1898.	Increase or Decrease.	
			Total.	Per Cent.
Outdoor.....	3,302	3,736	434	13.1
Indoor.....	4,524	4,730	206	4.6
Asylums.....	3,001	3,057	(-) 34	(-) 1.0
Appliances.....	224	222	(-) 2	nil.
Refused.....	362	428	66	18.2
<b>Total.....</b>	<b>11,503</b>	<b>12,173</b>	<b>670</b>	<b>5.8</b>

## BIRTHPLACES of Applicants for Government Orders.

Birthplaces of Applicants.	1897.		1898.	
	Number.	Percentage of the Whole.	Number.	Percentage of the Whole.
New South Wales.....	4,053	35.2	4,516	37.1
Other Australasian Colonies.....	849	7.4	904	7.4
United Kingdom.....	5,601	48.7	5,678	46.7
All other Places.....	1,000	8.7	1,075	8.8
<b>Total.....</b>	<b>11,503</b>	<b>100.00</b>	<b>12,173</b>	<b>100.00</b>

## PERIOD of Residence of Applicants in N.S.W.

Period of Residences in N.S.W.	1897.	1898.	Increase or Decrease.	
	Number of Applicants.	Number of Applicants.	Total.	Per Cent.
1 month to 12 months.....	501	618	117	23.3
1 year to 10 years.....	1,574	1,490	(-) 84	(-) 5.4
Over 10 years.....	5,375	5,549	174	3.2
<b>Total, not natives of N.S.W.....</b>	<b>7,450</b>	<b>7,657</b>	<b>207</b>	<b>2.8</b>
<b>Natives of N.S.W.....</b>	<b>4,053</b>	<b>4,516</b>	<b>463</b>	<b>11.4</b>
<b>Total.....</b>	<b>11,503</b>	<b>12,173</b>	<b>670</b>	<b>5.8</b>

## RETURN showing Birthplaces of Applicants for Government Orders for 1898 compared with 1897.

Birthplaces.	1897.	1898.	Increase or Decrease.	
			Total.	Per Cent.
New South Wales.....	4,053	4,516	463	11.4
Victoria.....	354	369	15	4.5
Queensland.....	147	179	32	21.8
South Australia.....	56	58	2	3.4
Western Australia.....	9	8	(-) 1	(-) 11.0
Tasmania.....	118	112	(-) 6	(-) 5.0
New Zealand.....	165	178	13	8.0
<b>Total, Other Australasian Colonies.....</b>	<b>849</b>	<b>904</b>	<b>55</b>	<b>6.5</b>
England and Wales.....	2,909	3,047	138	4.7
Scotland.....	752	723	(-) 29	(-) 3.8
Ireland.....	1,940	1,908	(-) 32	(-) 1.6
<b>Total United Kingdom.....</b>	<b>5,601</b>	<b>5,678</b>	<b>77</b>	<b>1.4</b>
<b>All Other Countries.....</b>	<b>1,000</b>	<b>1,075</b>	<b>75</b>	<b>7.5</b>
<b>Grand Total.....</b>	<b>11,503</b>	<b>12,173</b>	<b>670</b>	<b>5.8</b>

## CXXIX

NUMBER of Nurses and Wardsmen, Patients, and Patients per Nurse, &c., in the Coast Hospital, the Sydney Hospital, and Prince Alfred Hospital.

Year.	Coast Hospital.			Sydney Hospital.			Prince Alfred Hospital.		
	Nurses and Wardsmen.	Patients.	Patients per Nurse.	Nurses and Wardsmen.	Patients.	Patients per Nurse.	Nurses and Wardsmen.	Patients.	Patients per Nurse.
1893	24	2,466	103	51	3,083	60	53	2,644	50
1894	23	2,332	101	56	3,508	63	56	2,927	52
1895	27	2,615	97	61	3,821	63	60	3,251	54
1896	31	2,388	77	65	4,293	61	60	3,410	57
1897	49	2,506	51	70	4,090	58	67	3,453	51
Average for 5 years.	31	2,461	79	61	3,759	62	59	3,137	53
Year. 1898	49	2,894	59	72	3,904	54	67	3,706	55

\* See Appendix J.

## Appendix J.

Acting Secretary, Office of the Chief Medical Officer, to The Secretary, Royal Commission on Public Charities.

Sir,

In reply to your request of the 2nd instant, I have the honor, by direction of the Chief Medical Officer, to attach for the information of your Commission a Return showing the Nurses, Wardsmen, and Patients at the Coast Hospital during the years 1893 to 1898, inclusive.

Sydney, 8 May, 1899.  
Obediently yours,  
A. R. GULLICK,  
Acting Secretary.

## COAST HOSPITAL, LITTLE BAY.

RETURN of Nurses, Wardsmen, and Patients for the years 1893-98.

Years.	Number of Nurses at Hospital at end of year.	Number of Wardsmen at Hospital at end of year.	Average Monthly Number of Nurses.	Average Monthly Number of Wardsmen.	Total Number of Patients treated during year (including those remaining at end of previous year).
1893	26	2	21.3	2	2,466
1894	23	2	23.7	2	2,332
1895	26	2	25.4	2	2,615
1896	30	2	29.5	1.9	2,388
1897	40	1	33.6	1.5	2,506
1898	46	1	42.5	1	2,694

## Appendix K.

STATEMENT handed in by the Hon. John Hughes, M.L.C., in reference to the St. Vincent's Hospital.

The area of the hospital and grounds is about 3 acres.

A quarter of an acre of ground was granted by the Government in 1855. This area was increased a few years later by the acquisition of an adjoining allotment, at a cost of £1,232 10s. In 1870 a further purchase of land was made for £1,500, and finally, in 1889, another strip was bought for £2,800.

The total cost of the land was £5,532 10s.

The hospital was opened for the admission of patients (with eight beds) in October, 1857.

The number of beds now available is 175.

Number of indoor patients treated in 1898, 1,665.

Number of outdoor patients during the same period, including casualty cases, 7,644.

Total number of attendances at casualty and outdoor departments during 1898, 22,757.

Number of operations, 763.

The cost of maintenance for 1898, as per audited balance-sheet, £5,045 5s. 2d.

Since the opening of the hospital a sum of over £153,000 has been spent on its maintenance.

Cost of land and building to date £53,532.

Sources of income—public subscriptions, donations, and patients' fees.

The sums above-mentioned, amounting in all to £2,000, comprise the total monetary aid received from the Government. These were granted unconditionally.

Financial position of the Institution at the present time:—

	£	s.	d.
Building account, debit balance.....	3,503	19	7
Maintenance account .....	494	11	3
Total .....	£3,998	10	10

The Institution is strictly unsectarian.

Expenditure to 31st December, 1898, £153,806 18s.

Number of patients treated during the last five years:—

Year	Indoor.	Outdoor.	Attendances at outdoor department.	Operations.
1894 .....	1,327	2,230	10,852	448
1895 .....	1,349	2,570	15,507	533
1896 .....	1,364	2,690	15,487	591
1897 .....	1,536	4,274	19,592	708
1898 .....	1,665	7,644	22,757	763
Total .....	7,241	19,408	84,195	3,043

## Appendix L.

RETURN showing the amounts, per head of Population, expended in Charitable Aid by the Australasian Governments.\*

Colony.	Year.	Amount expended.			Population.	Cost per head of Population.			
		Benevolent Institutions.	Hospitals.	Total.		Benevolent Institutions.	Hospitals.	Total.	
		£	£	£		£ s. d.	£ s. d.	£ s. d.	
New South Wales ...	1896-7	86,415	66,454	152,869	End of 1896 ...	1,297,640	0 1 4	0 1 0	0 2 4
Victoria .....	1895-6	45,501	55,240	100,741	„ 1895 ...	1,181,751	0 0 9	0 0 11	0 1 8
Queensland.....	1896-7	22,075	65,765	87,840	„ 1896 ...	472,179	0 0 11	0 2 9	0 3 8
South Australia .....	1895-6	15,914	25,300	41,214	„ 1895 ...	357,405	0 0 11	0 1 5	0 2 4
Western Australia...	1896	10,419	.....	10,419	Mean of 1896 ...	119,590	0 1 9	.....	0 1 9
Tasmania .....	1896	11,974	22,659	34,633	„ 1896 ...	163,473	0 1 6	0 2 9	0 4 2
New Zealand .....	1896	51,318	39,937	91,255	„ 1896 ...	706,434	0 1 5	0 1 2	0 2 7
New South Wales ...	1897-8	80,272	71,675	151,947	End of 1897 ...	1,323,460	0 1 2	0 1 1	0 2 3
Victoria .....	1896-7	48,428	55,540	93,968	„ 1896 ...	1,174,944	0 0 9	0 0 11	0 1 8
Queensland.....	1897-8	24,150	69,376	93,526	„ 1897 ...	484,700	0 1 0	0 2 10	0 3 10
South Australia .....	1896-7	17,103	28,074	45,177	„ 1896 ...	360,220	0 0 11	0 1 7	0 2 6
Western Australia...	1897	11,856	.....	11,856	Mean of 1897 ...	149,935	0 1 7	.....	0 1 7
Tasmania .....	1897	12,019	23,202	35,221	„ 1897 ...	163,916	0 1 5	0 2 9	0 4 2
New Zealand .....	1897	43,483	41,033	84,516	„ 1897 ...	721,699	0 1 2	0 1 2	0 2 4
New South Wales ...	1898-9	84,354	73,931	158,285	End of 1898 ...	1,346,210	0 1 3	0 1 1	0 2 4
Victoria .....	1897-8	45,864	58,220	104,084	„ 1897 ...	1,176,248	0 0 9	0 1 0	0 1 9
Queensland.....	1898-9	23,276	69,495	92,771	„ 1898 ...	498,523	0 0 11	0 2 9	0 3 8
South Australia .....	1897-8	20,662	29,257	49,919	„ 1897 ...	363,044	0 1 2	0 1 7	0 2 9
Western Australia...	1898	14,503	.....	14,503	Mean of 1898 ...	165,027	0 1 9	.....	0 1 9
Tasmania .....	1898	13,220	26,526	39,746	„ 1898 ...	174,529	0 1 6	0 3 0	0 4 6
New Zealand .....	1898	44,693	38,686	83,379	„ 1898 ...	736,260	0 1 2	0 1 1	0 2 3

\* Compiled from returns furnished by the Governments of the respective Colonies.

NOTE.—It is to be observed that this return deals only with the sums contributed by the Governments, and does not include expenditure met by subscriptions and donations from the public, or moneys obtained from other sources.



CXXXI

## Appendix M.

## PUBLIC INSTITUTIONS INSPECTION ACT OF 1866.

30<sup>o</sup> VICTORIÆ No. 19.

An Act to make provision for the Inspection of Hospitals and other Institutions aided from the Public Revenue. [22nd December, 1866.]

- WHEREAS it is necessary in certain cases in which sums of money are granted by Parliament in aid of Hospitals and other Public Institutions to make provision for ensuring the proper application of such grants to the purposes intended Be it therefore enacted by the Queen's Most Excellent Majesty by and with the advice and consent of the Legislative Council and Legislative Assembly of New South Wales in Parliament assembled and by the authority of the same as follows:—
1. It shall be lawful for the Governor with the advice of the Executive Council to appoint an Inspector of Public Charities the duty of which officer under the instructions of the Colonial Secretary for the time being shall be to visit and inspect all Hospitals Infirmaries Orphan Schools and Charitable Institutions which are wholly or in part supported by grants from the Public Revenue and to conduct inquiries and examinations in respect to the management of the same and also in special cases to appoint with such Inspector any other person or persons to aid in the performance of the said duties. Provided that all such visits inspections inquiries and examinations shall have reference and be directed solely to the proper appropriation of the public grants in aid and the efficient conduct of such Institutions.
2. It shall be lawful for the Colonial Secretary to perform any of the duties and exercise any of the powers of visitation inspection and inquiry by this Act conferred upon the Inspector of Public Charities.
3. Every public Institution that receives aid from the Public Revenue shall at all times submit to the inspection and examination of the Government as provided for in this Act or by any special Board or Commission of Inquiry duly appointed And any Director Trustee Superintendent Master or Officer of such Institution or any other person resisting the inspection and inquiry so authorised by wilfully refusing admission to premises withholding books or accounts when applied for or by any other act shall be liable to a penalty not exceeding for any one offence the sum of ten pounds.
4. The Inspector of Public Charities or other persons performing the duties of inspection as prescribed by the provisions of this Act shall before the thirty-first day of January in each year lay before the Governor and Executive Council a detailed report on the condition and working of the several Public Institutions aforesaid and copies of all such reports shall be laid before both Houses of Parliament.
5. The Governor with the advice of the Executive Council may appoint any Magistrate or other person resident in any place where a Mechanics' Institution School of Arts Public Library Literary Society or other similar Institution is established with aid from the Public Revenue to visit inspect and report upon the state and working of such Institution and the person so appointed shall as to such Institution possess all the powers of inspection and inquiry conferred by the provisions of this Act on the Inspector of Public Charities.
6. All penalties imposed by this Act may be recovered in a summary way before any two or more Justices of the Peace.
7. This Act shall come into operation on the first day of January one thousand eight hundred and sixty-seven.
8. This Act shall be styled and may be cited for all purposes as the "Public Institutions Inspection Act of 1866."
- Preamble.  
Inspectors of Public Charities may be appointed.  
Powers of Inspector may be exercised by the Colonial Secretary. Public Institutions to be subject to inspection.  
Annual Report.  
Persons may be appointed to inspect Literary Institutions  
Penalties how recoverable.  
Commencement of Act.  
Short title.

## Appendix N.

Act No. 16, 1898.

An Act to consolidate the Acts relating to Public Hospitals. [Assented to, 27th July, 1898.]

BE it enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and Legislative Assembly of New South Wales in Parliament assembled, and by the authority of the same, as follows:—

## PART I.

*Preliminary.*

1. This Act may be cited as the "Public Hospitals Act, 1898," and is divided into Parts, as follows:—

PART I.—*Preliminary*—ss. 1-3.

PART II.—*Election and appointment of officers*—ss. 4-11.

PART III.—*Hospital property and legal proceedings*—ss. 12-18.

PART IV.—*Supplemental*—ss. 19-21.

2. (1) The Acts mentioned in the First Schedule to this Act are, to the extent therein expressed, hereby repealed.
- (2) All persons appointed or elected under the Acts hereby repealed, and holding office at the time of the passing of this Act, shall be deemed to have been appointed or elected hereunder.
- (3) All rules, regulations, or by-laws made under the authority of any Act hereby repealed, and being in force at the time of the passing of this Act, shall be deemed to have been made under the authority of this Act.
3. This Act shall apply—
- (a) to the hospitals mentioned in the Second Schedule hereto; and
- (b) to any hospital to which the Governor is authorised to extend and extends the provisions of this Act as hereinafter provided.
- Short title.  
Repeal. First Schedule.  
Officers under Acts hereby repealed.  
Rules, regulations, or by-laws under Acts hereby repealed.  
Application of Act.  
11 Vic. No. 50, preamble, and s. 11.

## PART II.

*Election and appointment of Officers.*

4. The Secretary, under the authority of the committee, of every hospital shall call an annual meeting, to be held in January, of the contributors to such hospital for the election of trustees (who shall not exceed five in number), committee, auditors, and other elective officers.
5. Any contributor shall be qualified to vote at any annual or special general meeting on any question brought before such meeting, or to vote for any elective officer nominated at such meeting, if—
- (a) in the case of the first annual meeting after the extension of the provisions of this Act to such hospital, or in the case of any special general meeting he has paid to the hospital a contribution of one pound sterling at the least within twelve months before such meeting; or
- (b) in the case of any subsequent annual meeting he has paid to the hospital a contribution of one pound sterling at the least between the commencing of business at such meeting and the commencing of business at the preceding annual meeting; or
- (c) in any case he has paid to the hospital a contribution of ten pounds sterling at the least in one sum.
6. (1) Any contributor to any hospital qualified to vote as aforesaid may be nominated for and elected to any elective office of such hospital, and any person, whether a contributor or not, may be nominated for and elected to the office of auditor.
- (2) No person shall be elected to any elective office unless at a meeting for such election he is proposed and seconded by two contributors qualified to vote, and is with his own consent nominated in writing.
- (3) Every meeting for election of elective officers shall be advertised in the nearest local paper at least a week before the day on which such meeting is to be held.
- Meeting for election of officers.  
11 Vic. No. 50, ss. 5, 6, 7.  
Contributors who may vote.  
Ibid. s. 6.  
58 Vic. No. 6, s. 4.  
Qualification of officers  
58 Vic. No. 6, s. 2.  
Nomination.  
Advertisement.

Adjournment of annual or special general meeting if ten contributors qualified to vote shall not be present.  
11 Vic. No. 59, s. 8.

Adjournment of election—absent voting.  
58 Vic. No. 6, s. 3.

Vacancies, how to be filled up.  
11 Vic. No. 59, s. 10.

Vacancies in committee—how filled.  
58 Vic. No. 6, s. 7.

Committee to appoint officers.  
*Ibid.* ss. 5, 6.

Enabling treasurers of hospitals to sue.  
11 Vic. No. 59, s. 1.

Treasurer to recover fees from patients.  
4 Vic. No. 3, s. 2.

Property may be laid in the treasurer.  
11 Vic. No. 59, s. 2.

Actions against any hospital to be prosecuted against the treasurer.  
*Ibid.* s. 3.

Treasurer to be reimbursed.  
11 Vic. No. 59, s. 3.

Memorial of the name of the treasurer of hospital to be recorded in the office of the Registrar-General.  
*Ibid.* s. 4.

Property of any hospital to be vested in trustees thereof.  
*Ibid.* s. 5.

Trustees to invest funds of hospital.  
45 Vic. No. 3, s. 1.

Committee to make rules.  
58 Vic. No. 6, s. 6.

Extension of Act.  
11 Vic. No. 59, preamble, s. 11.

Effect of extension of Act to any hospital.  
58 Vic. No. 6, s. 8.

7. If at any annual or special general meeting at least ten contributors qualified to vote do not assemble and proceed to business within one hour from the time fixed for the meeting, no election shall be made, nor shall any business be done at that time; but in such case there shall be another meeting at the same place, and at the same hour of the same day in the following week, and at the such other meeting any number of contributors more than three qualified to vote shall constitute a meeting.

8. If at any meeting the number of persons nominated for any elective office is greater than the number to be elected, the meeting shall be adjourned to a day not less than seven nor more than fourteen days after such adjournment, and the secretary shall fix such day, and shall notify the same by advertisement in the nearest local paper, and shall also forthwith transmit by post or otherwise to every contributor qualified to vote a voting paper initialled by the secretary, containing the names of all the persons duly nominated. The said contributors shall strike out of such voting paper the names of the persons for whom they do not desire to vote and shall enclose the voting paper in an envelope endorsed "voting paper," and enclosed in another envelope bearing the voter's signature inside, and shall return the voting paper enclosed as aforesaid to the secretary not later than the day before the date of the adjourned meeting. All such envelopes endorsed "voting paper," as aforesaid shall be handed by the secretary to the scrutineers appointed at such meeting, who, after counting the votes, shall present a signed return to the adjourned meeting, showing how many votes were recorded for each person nominated, and the chairman of such meeting shall declare those persons elected who have received the majority of votes.

9. If any trustee of any hospital dies, or is absent from New South Wales for more than twelve months, or resigns, or refuses, or becomes non compos mentis, or otherwise incapable to act as trustee, a special general meeting shall be called by the secretary under the authority of the committee, and the election of a successor shall be made in the same manner as at an annual meeting, and the person so elected as trustee shall, to all intents and purposes, be vested with the same rights, powers, and authorities in law as the person in whose place he has been elected.

10. When any member of the committee of any hospital dies, or resigns, or becomes non compos mentis, or refuses, or becomes otherwise unable to act as a member of such committee, the committee may declare that such person has ceased to be a member of such committee, and may appoint a qualified person in his place; and the person so appointed shall have the same rights, powers, and authorities as the person had in whose place he has been so appointed.

11. The committee of any hospital shall annually appoint a treasurer, and shall also appoint a secretary, medical officer, warden, matron, and any other officer or servant they may deem necessary for the efficient working of such hospital.

PART III.

*Hospital property and legal proceedings.*

12. (1) All proceedings at law or in equity, by or on behalf of any hospital, or wherein any hospital is interested or concerned, may be commenced and prosecuted in the name of the person who is treasurer of such hospital at the time any such proceeding is instituted as nominal plaintiff for and on behalf of such hospital, and such proceedings may be prosecuted and carried on in the name of such treasurer to their final termination, notwithstanding any change in the said office of treasurer during the progress of such proceedings.

(2) The treasurer of any hospital may institute and prosecute in his own name, for and on behalf of the committee of such hospital and by their direction, proceedings against any person who has received medical or surgical treatment in such hospital, or against the executors or administrators or the curator of the estate of any such person, for the recovery of fees and remuneration for such treatment, and such proceedings may be taken either in the District Court or Court of Petty Sessions of the district in which the hospital is situated, or of the district in which the person resides.

13. In any information or indictment against any person for embezzling, stealing, or in any manner defrauding any hospital, any property of such hospital may be stated to be the property of the treasurer thereof for the time being; and no change in the office of such treasurer during the progress of any prosecution shall abate, or in any manner effect, such prosecution.

14. All proceedings at law or in equity against any hospital may be commenced and prosecuted against the treasurer thereof for the time being as the nominal defendant for and on behalf of the said hospital; and such proceedings may be prosecuted and carried on against such treasurer to their final termination, notwithstanding any change in the said office of treasurer during the progress of such proceedings.

15. Any treasurer in whose name any such proceeding is commenced, prosecuted, carried on, or defended, shall in all cases be reimbursed and paid out of the funds of the said hospital.

16. A memorial containing the name of the treasurer for the time being of every hospital, in the form and to the effect set forth in the Third Schedule hereto, signed by such treasurer, and by a majority of the committee, and verified on oath by one or more credible witnesses, shall from time to time, as occasion may require, be recorded in the office of the Registrar-General, and no action, suit, or other proceedings shall be brought by any hospital until such memorial has been so recorded by such hospital, and the treasurer named in such memorial shall be held to be the treasurer of the hospital recording the same.

17. The trustees of any hospital and their successors shall be capable of taking and holding all lands granted, conveyed, or bequeathed to such hospital, and all such lands shall be vested in such trustees respectively; and such trustees may permit the committee of any such hospital to build on and use such lands in such manner as the committee may deem expedient for carrying out the objects of such hospital.

18. The trustees of any hospital may invest any funds thereof which the committee direct the treasurer to hand over to such trustees from the funds in his hands or otherwise, and also any moneys given or bequeathed to, or arising from any donation of real or personal property to such hospital, at the discretion of such trustees, in any Government funds or debentures of any Australian colony, or in any debentures or debenture stock of any municipal corporation in the said colonies, or of any bank or incorporated company carrying on business therein, or by way of purchase of, or on first mortgage upon, any freehold estate within New South Wales, or in bank deposit receipts for fixed periods or otherwise, with power to pay and transfer any such investment for or unto any other investment authorised by this Act:

Provided that the committee may with the consent of the said trustees in their absolute discretion at any time resort to any such investments and sell the same for the purpose of applying the moneys to arise from any such sale for the purposes of such hospital.

PART IV.

*Supplemental.*

19. The committee of every hospital shall make rules for the conduct of business at meetings of the said committee, and generally for the management and control of such hospital.

20. The Governor may, by proclamation published in the Gazette, extend the provisions of this Act to any hospital to be maintained partly by private contributions and partly by aid from the public funds and not mentioned in the Second Schedule hereto.

21. Whenever the provisions of this Act are extended to any hospital, the elective officers of such hospital holding office at the date of the proclamation shall continue in office and have the same rights, powers, and duties as if duly elected under the provisions of this Act.

SCHEDULES.

FIRST SCHEDULE.

Reference to Act.	Title or short title.	Extent of repeal.
11 Vic. No. 59 .....	An Act to enable certain public hospitals to sue and be sued in the name of their treasurer, and to provide for the taking and holding of real property belonging to such hospitals respectively.	The unreplicated portion.
45 Vic. No. 3 .....	An Act to amend the Hospital Acts, and to enable trustees thereof to invest the funds of such hospitals.	The whole.
58 Vic. No. 6 .....	An Act to further amend the law relating to the management of hospitals.	The whole.

CXXXIII

SECOND SCHEDULE.

List of Hospitals.\*

Section 3 (e).

Hospital.	When brought under Act.	Hospital.	When brought under Act.
Adelong .....	12 April, 1861	Lithgow .....	15 Sept., 1893
Albury .....	16 Aug., 1860	Maitland .....	11 Vic. No. 59
Armidale .....	4 Feb., 1879	Manly Cottage Hospital .....	26 June, 1896
Bathurst .....	11 Vic. No. 59	Manning River .....	11 Jan., 1889
Bega .....	17 Dec., 1886	Marrickville Cottage Hospital .....	17 Nov., 1896
Berrima .....	17 Jan., 1890	Merrima .....	10 Jan., 1893
Bingara .....	23 Aug., 1889	Moree .....	30 June, 1891
Bourke .....	30 Mar., 1865	Mudgee.....	8 Jan., 1857
Braidwood .....	14 May, 1858	Murrumbundi .....	6 Mar., 1874
Brewarrina .....	24 Nov., 1896	Musclebrook.....	15 May, 1891
Broken Hill .....	22 Mar., 1892	Narrabri .....	7 Mar., 1882
Bulli Cottage Hospital .....	27 Oct., 1893	Narrandera .....	22 May, 1891
Carcoar .....	13 April, 1859	Nepean Cottage Hospital .....	13 Sept., 1892
Casino .....	1 April, 1887	Newcastle... ..	11 Vic. No. 59
Clarence (Lower) Hospital, Maclean ..	23 Sept., 1887	North Shore.....	23 Aug., 1889
Cobar .....	7 Mar., 1882	Nyngan Cottage Hospital .....	9 April, 1897
Condobolin .....	6 Mar., 1891	Orange .....	28 July, 1874
Cooma .....	3 June, 1881	Parramatta .....	11 Vic. No. 59
Corowa .....	12 Aug., 1892	Port Macquarie .....	11 Sept., 1848
Cowra .....	9 Oct., 1882	Prince Alfred Memorial Hospital, Tenterfield.	29 Aug., 1884
Deniliquin .....	16 Dec., 1858	Queanbeyan .....	15 Jan., 1892
Dubbo .....	11 June, 1868	Seone.....	7 Feb., 1882
Dungog .....	18 Jan., 1898	Silverton .....	4 Dec., 1885
Emmaville .....	15 Feb., 1884	St. George's .....	15 July, 1882
Forbes .....	30 Aug., 1889	Tamworth .....	30 July, 1862
Goulburn .....	11 Vic. No. 59	Wagga Wagga.....	10 June, 1898
Grafton .....	11 Aug., 1862	Walgett.....	13 May, 1884
Grenfell .....	22 Oct., 1887	Warialda .....	4 Nov., 1882
Gulgong .....	24 Oct., 1878	Warren .....	28 June, 1892
Gundagai .....	20 Aug., 1863	Wellington .....	6 Mar., 1874
Gunnedah.....	23 Dec., 1881	Wentworth .....	10 May, 1887
Hay .....	16 Sept., 1867	Western Suburbs Cottage Hospital ..	15 July, 1892
Hillgrove .....	27 Feb., 1891	Windsor .....	11 Vic. No. 59
Hillston.....	29 Aug., 1884	Wollongong .....	5 Oct., 1864
Inverell.....	15 Feb., 1882	Wyalong .....	12 June, 1894
Junee .....	7 Feb., 1890	Yass .....	11 Vic. No. 59
Lismore .....	S.G.G. 29 Dec., 1886		

\* Other hospitals have since been included.

THIRD SCHEDULE.

MEMORIAL of the name of the treasurer of the hospital at  
in New South Wales, to be recorded in the office of the Registrar-General at Sydney, in pursuance of the Public Hospitals  
Act, 1898. Be it known that on the day of 18 ,  
A.B., was duly appointed treasurer of the hospital at

Memorial.  
Section 16.

A.B., Treasurer.

E. F. { Being a majority } G. H.  
I. K. { of the members of } L. M.  
the committee.

O. Q., of , gentleman, maketh oath and saith that he was present and did see the foregoing  
memorial signed by the above-named treasurer and members of the committee of the  
hospital at

Sworn this

day of

18 .

## SUMMARY OF EVIDENCE.

## PRIVATE HOSPITALS.

*Dr. Thompson* (93).—No necessity for paying wards in public hospitals if security is given that there will be private hospitals in sufficient number. (96) If a person can afford to pay his way entirely, a public hospital exceeds its proper scope and charitable design in receiving payment. Such a person should be invited to enter a private hospital; (97) and if able should pay the whole cost. (98) The charge in the hospital would not be much smaller than the charge of a private practitioner. (99) I do not think the charge would be more in a private hospital. I think it would be less. (102) I do not know what the charges are in private hospitals, or what are the charges for private wards in public hospitals. If a person can pay for a private ward in a public hospital, he can pay for a private ward in a private hospital, and he ought to do so. The public hospitals should not interfere with the business carried on by those who own private hospitals. I do not know the number of private hospitals in Sydney.

1346

*Dr. Evans* (Ophthalmic surgeon).—When I have to treat the case of a person without a home in Sydney, I send the case to a private hospital. I do not know how many such hospitals there are. The advantage of them is very limited. As a rule, the patients (private) I treat have homes in which I can do the work. The number of those who can pay is very small. There are no private ophthalmic hospitals.

1349

1656—1657

*Dr. Clulbe*.—I suppose there are quite a dozen private hospitals in the city and suburbs.

1725—1726

*Dr. Graham*.—I have a knowledge of private hospitals and nursing-homes in Sydney. I could not say how many there are. They are increasing every month.

1829

*Dr. Foreman*.—Private hospitals are increasing every day in Sydney. There must be at least a dozen.

2046—2048

*Dr. Chisholm*.—I know most of the private hospitals. I think there are about five good hospitals; certainly three which are very suitable; two or three others are admirably managed, but I do not know that the buildings are quite suitable. I believe that in most of the suburbs there are private hospitals.

2716

*Dr. MacCormick*.—There are about six or seven private hospitals in Sydney.

## REGISTRATION AND INSPECTION.

156—158

*Dr. Thompson*.—I should think it probable that it would be a good thing that private hospitals should be inspected. I think it would be a wise precaution to inspect them before licensing, and also to see that they are kept in repair.

535

*Sir Arthur Renwick*.—The Government gives nothing towards the maintenance of private hospitals. I really do not think the thing has gone far enough yet to require inspection for the protection of the people; but if it goes much further, then undoubtedly it will be necessary to have some kind of inspection. I think licensing would meet the case.

537

1480—1482

*Dr. McClelland*.—I think private hospitals should be under proper regulations and licensed. There is great liability to abuse in having private hospitals unless they are properly supervised. They should be licensed or in some way supervised.

1661—1662

*Dr. Clulbe*.—I do not think it necessary to register or license private hospitals, except the lying-in hospitals.

1728—1730

*Dr. Graham*.—I think private hospitals should be registered and licensed, for sanitary reasons and for reasons applicable to the management. I am aware that there is a licensing system in Melbourne.

1766

*Dr. Thring*.—I would advise that private hospitals should be registered and licensed. There is a danger that the proprietors may employ cheap labour. It is an abuse that exists. I would limit the number of probationers to the number of beds in each institution, and I think I would provide for inspection. Sometimes the proprietor is really not thoroughly trained herself; and, therefore, with possibly the best intentions is not competent to see that things are properly and efficiently carried out, and the supervision is entirely in that person's hands. There is no supervision at present; anyone may start a private hospital.

1774

1833

*Dr. Foreman*.—I most decidedly think that private hospitals ought to be licensed and registered; it is a very great pity that there is not some control and supervision over them. Anybody can start a private hospital; the system is very much abused. I consider inspection an absolute necessity to see that proper medical attendance and proper nursing is provided. It would be better if we had cheaper accommodation at private hospitals, but it would have to be on a large scale. A cheaper hospital is much to be desired, but it would have to be on a large scale to make it pay. I have heard on good authority that the private hospitals are being abused in certain cases.

1844

2053

*Dr. Chisholm*.—I think it would be a very good thing if private hospitals were registered and inspected. I see no objection to it. At present there is no check upon them. I suppose they are liable to great abuse without inspection. One sees homes for ladies advertised in the papers; those are simply the advertisements of abortionists. I do not think medical men send their cases there, but some are advertised as lying-in homes, and I have no doubt that they are used for that purpose.

2056

*Dr. Mackellar*.—I certainly think private hospitals should be subject to registration and inspection. I think it is an absolute necessity with all private hospitals. I do not think that in Sydney any great harm particularly has arisen from such institutions, but we know that very great harm has arisen in other places—in London, for instance, from institutions ostensibly for the purposes of private treatment. I think there is no law here under which they can be brought, a special Act would be required to deal with them.

2647

2649

*Dr. MacCormick*.—I would approve of the registration and inspection of private hospitals. At present anybody can start a private hospital and conduct it in any way they please till something goes wrong.

2717

2720

## SCALE OF CHARGES.

99

*Dr. Thompson*.—A patient from Queensland was taken into one of the hospitals as a private patient, and paid 8 guineas a week. I should think the charge would have been less in a private hospital. The 8 guineas did not, I think, represent the actual cost to the hospital.

100

534

*Sir Arthur Renwick*.—The cost in ordinary cases (in private hospitals) would not be greater than what is charged at the Prince Alfred Hospital.

927

*Professor Wilson*.—The nominal fees charged in private hospitals are rather less than those charged in the Prince Alfred Hospital. I believe that 5 guineas is the usual fee for maintenance in private hospitals; 7 guineas was the full normal charge in the Prince Alfred. When they paid 7 guineas there were 2 guineas for the medical man, and 5 guineas were considered the fee for maintenance. The doctors did not receive those sums, they were devoted to the funds.

930

1732

*Dr. Graham*.—The charges are coming down very much—the law of supply and demand is bringing them down. There are plenty of respectable, cleanly, well-conducted places that will take in a patient at from £1 a week upwards.

1749

*Dr. Thring*.—I believe that if it were recognised by patients that they enter the public hospitals on entirely charitable lines—that they pay nothing—there would be a greater effort made by many of them to have their needs seen to outside. If it were made a more purely charitable thing, they would scruple to accept it. As it is, they pay 10s. or £1 a week, and they look upon it as though they had bought the place. There are at least three private hospitals, where the nursing is the best you can get, for 3 guineas a week.

2050

*Dr. Chisholm*.—I have not heard of any abuses in connection with any of the private hospitals; the complaint against them is that the charge is too much. They will take patients at 3 guineas; but the charges run up to 8 guineas or 9 guineas a week; it all depends on the nursing. The rates are very high—5 guineas or 6 guineas a week after operation, on an average, I think.

2052

2508

*Dr. Sawkins*.—The charges at private hospitals vary from 3 to 10 or 15 guineas a week. Three guineas is supposed to be a very small fee.

2722

*Dr. MacCormick*.—We charge (private hospital) from 3 to 6 guineas a week, according to the accommodation required and the nature of the case. That includes everything, except stimulants and washing. It does not include medical attendance. It includes boarding, nursing, dressing, and that sort of thing.

2723

CONDUCT.

## CXXXV

## CONDUCT.

<i>Dr. Clubbe.</i> —The private hospitals are very well conducted, and the nursing is very satisfactory. I have not heard of any abuses in connection with them. They are good institutions and supply all that is necessary for private cases.	1658—1664
<i>Dr. Graham.</i> —On the whole they are well conducted. They are chiefly managed by nurses that one personally knows, and has helped to train.	1727
<i>Dr. Thring.</i> —Some of them are well conducted; but there are some that I certainly would not send patients to. It happens that I know of one instance in which a private hospital was used for improper purposes. It has been broken up.	1765 & 1786 1787
<i>Dr. Foreman.</i> —Some of them (private hospitals) are very well conducted.	1831
<i>Dr. Chisholm.</i> —As far as I know, they (the private hospitals) are very well conducted.	2049

## COUNTRY HOSPITALS.

<i>Dr. Thompson.</i> —The number of persons admitted on order of the Government and police is so small, and they stay such a very short time, that I think the care of them is a fair charge on the subsidy. I do not think the country hospitals ought to receive payments for patients that receive Government orders.	88 — 89
<i>Dr. Thompson.</i> —Patients are admitted on the order of a subscriber; the order is referred to the Medical Officer, who, if he thinks the case a suitable one, endorses the order for admission. If a patient can pay, he is made to pay. The Government have the right to admit any patient through the Police Magistrate.	147 — 149
<i>Dr. Pain.</i> —My experience has been that very large numbers of patients, when asked why they do not go to their own country hospitals, say that they do not like the doctor there, or give some other reason.	1041
<i>Mr. Cherry</i> (Statistician's Office).—The country hospitals receive £31,233, or 8d. per head of the country population.	183
<i>Dr. Thompson.</i> —There are at present 100 country hospitals, not including suburban hospitals. In eighty-six cases, the medical officers are paid. In the vast majority of these cases the payment is really an honorarium, and runs from £12 a year upwards.	120
I have seen most of the country hospitals. I think they are generally well conducted.	124-5
I think all these hospitals are necessary. I do not know of two such hospitals (country) so near each other that they interfere with each other's work. In one case (a mining township) the decline of the town made the hospital superfluous. In many cases patients still have to take very long journeys.	133 — 134
<i>Dr. Thompson.</i> —It would be better to dispense with hospitals in towns in proximity to one another, and have one hospital to serve the whole district.	160
I think an inspection of these hospitals is a necessity; but I could give no specific grounds. I do not think this hospital business will ever be satisfactorily managed until each hospital is supported by the inhabitants of the district which it serves, by the payment of a tax. It will not be satisfactory until it is made part of a system of local government.	135 136 154

## CHILDREN'S HOSPITAL.

<i>Mr. C. Griffiths</i> (Treasurer).—The building was erected for a school. The ground opposite, about 4 acres, was purchased, and the diphtheria ward was transferred to the cottage on the land. The building is most unsuitable and unsatisfactory, and the expenditure is very heavy. We pay £2 or £3 more for gas per month for the diphtheria cottage than we pay for the hospital. We have no private wards, and no subsidy for Government patients; our only subsidy is £ for £ on the collections. Last year there were 4,000 out-patients, with about 10,000 attendances. There is great pressure on our space, and more accommodation is absolutely necessary.	1922 1927 1954 1955 2004 2005 2010 2011
<i>Dr. Clubbe.</i> —The building is obviously unsuitable; the nursing arrangements are very satisfactory. We have a very large Board, but only two or three members take much interest in the place. There are eighteen men and twenty-two women, so that we have an unwieldy Board of forty. The house committee, practically the executive, is composed entirely of ladies; it would be much better if it consisted solely of men, or half men and half women.	1560 — 1565
<i>Dr. Thompson.</i> —They have a diphtheria ward at the Children's Hospital containing twelve beds. The Coast Hospital enables that place to deal with a larger number of patients than they otherwise would by receiving convalescents before they are fit to go home.	65
<i>Dr. Clubbe.</i> —The diphtheria ward is really a separate hospital. We began to use the anti-toxin treatment in 1895; it has lowered the death-rate from 50 to 24 per cent. Last year it was 17 per cent; this year (to 24th May) there has been no death. I feel sure the death-rate will be further decreased. There is no real ground for the objection by people at the Glebe against the diphtheria hospital. We hardly get any cases from the Glebe. There were nine cases from the Glebe last year, and I cannot say that one of them was attributable to the presence of the hospital. I think the site is as good as any we could obtain near Sydney. The diphtheria hospital is expensive—not very expensive, but comparatively so; we have to keep up our staff, because you never know when a rush of diphtheria is coming. It might be desirable to have a receiving hospital for diphtheria and urgent cases, the majority of which might be sent to the Coast Hospital.	1573 — 1586 1595 — 1597 1622

## PRINCE ALFRED HOSPITAL.

<i>Dr. Thompson.</i> —My belief is that the hospital accommodation for Sydney is rather below than above what is required.	76—77
<i>Sir E. Knox.</i> —The accommodation at the Prince Alfred Hospital is quite insufficient for the calls made upon it.	815
<i>Professor Wilson.</i> —The hospital accommodation is insufficient.	865
<i>Dr. Thompson.</i> —The number of patients admitted to the Prince Alfred Hospital on Government order in 1898 was 1,359.	105
<i>Mr. Cherry.</i> —The average residence of patients in Prince Alfred Hospital for 1897 was twenty-six days.	166
<i>Sir E. Knox.</i> —The income from paying patients is about £2,400 a year.	813
<i>Professor Wilson.</i> —931 patients contributed in 1898. In the private wards twenty-three patients paid £4 4s. per week.	922
<i>Sir E. Knox.</i> —No charge is made to the out-patients.	842
<i>Professor Wilson.</i> —We estimate the number of out-patients for 1898 at about 12,000, representing 49,000 attendances at an approximate cost of £1,250 per year.	912
The money put into the poor-box by patients was only £100 in 1898, against £380 in 1897, with half the number of patients we have now.	993
<i>Sir E. Knox.</i> —I have never known an order to be given for the admission of a patient by a director or a subscriber; we have simply been guided by the urgency of the cases.	829
<i>Professor Wilson.</i> —Lock cases are received—there is no special lock ward.	861
Ophthalmic cases can be treated quite as well in a general as they can in a special hospital.	919—920

## SYDNEY HOSPITAL.

<i>Dr. Paton.</i> —You could add to the accommodation by increasing a storey.	266
<i>Sir Arthur Renwick.</i> —When it was planned it was intended to have another storey. If we are to have further bed accommodation we must have another storey.	387—388 429
<i>Dr. McClelland.</i> —We need more female surgical accommodation. We have only twenty-two beds to accommodate all the females that come in for ordinary and accidental surgical cases.	1394

- 1400 If the female lock cases could be taken away it would afford much relief to the Sydney Hospital.  
 379-380 *Sir Arthur Renwick.*—We have some lock cases—about thirteen. At one time we had a ward devoted solely to them.  
 105 *Dr. Thompson.*—The number of patients admitted to the Sydney Hospital on Government orders in 1898 was 1,557, nearly half the total admissions.  
 166 *Mr. Cherry.*—The average residence of patients in Sydney Hospital during 1897 was twenty-four days.  
 603-604 *Mr. James Ewan.*—Up to the present time we issued orders to subscribers for the admission of a certain number of patients. We propose to do away with that practice, and admission will depend upon the medical and financial necessities of the case.  
 443 *Sir Arthur Renwick.*—If we could obtain an extra grant of land to extend the Sydney Hospital, we would instantly remove the ophthalmic patients to the main hospital, and suggest that the Government should resume Moorcliff for a lock hospital.  
 1439-1441 *Dr. McClelland.*—The beds for lock cases are always pretty well filled. This class of disease is entailing a large expense on the community. The charitable public are taxed for the purpose of treating those cases.  
 398 *Sir Arthur Renwick.*—The children's wards are sufficient for present purposes. I consider they might well be treated in a separate institution. We have always had a children's department, and the accommodation at the Children's Hospital is always pretty well occupied.  
 434 So many nurses sleeping in one room is objectionable. If we had more accommodation that would be avoided.  
 394 *Dr. McClelland.*—We have proper facilities for teaching medical students, but we have not been called upon to use them. Students are beginning to come.  
 1474-6  
 1478 I think private wards in connection with public hospitals are a mistake.

## REGENT-STREET DISPENSARY.

- 453 *Sir Arthur Renwick.*—I doubt whether it would not be better if the patient came to the out-door department at the Sydney Hospital. Nine-tenths of them could attend the hospital without any difficulty, and it is questionable whether the other tenth ought to get hospital treatment—whether they should not pay. It was suggested years ago to adopt the plan adopted in large cities in England, viz., to divide the city into districts, each with a medical man attached; that the local dispensary should be paid a certain sum annually. It would be a great saving to the country, and the poor would be much better attended to.  
 566 *Mr. James Ewan, Treasurer, Sydney Hospital.*—The full cost of the Regent-street Dispensary is paid by the Government.  
 1688 *Dr. Graham.*—It is simply a place where people get medicine. It is not a dispensary in the sense in which the word is used in Great Britain; there is no visitation of the indigent poor in their own homes. I think that it is an absolute discredit to us as now conducted.  
 2526-7 *Dr. Sawkins.*—The dispensary in Regent-street does good; I have not been there.  
 2624 *Dr. Mackellar.*—I do not think the dispensary is performing any useful work. I was a member of a committee which recommended that it should be abolished. The dispensary is doing adequate good to the payment made for it. A free dispensary from which patients could be visited at their own homes by students, under the charge of a competent medical man, would be a very useful institution, and would meet a want that exists in all large towns in which there are poor people.  
 2627

## MOORCLIFF HOSPITAL.

- 1277-1282 *Dr. Evans.*—The nursing staff is excellent and quite sufficient. I understand that our patients cost about 13s. per week.  
 413-415 *Sir Arthur Renwick.*—The site has all the advantages of clear air and good elevation. If we had a proper building the results would be very much better in every way.  
 1270 1276 *Dr. Evans.*—The site is excellent, the furniture is sparse and not satisfactory. Children do sometimes sleep two in a bed. I do not want to say anything to do us out of our accommodation until something else is provided. The place is so full of bugs that we cannot keep them under, and when an epidemic of rats come along we have to employ people to watch at night, because some of the children have been bitten by rats. A suitable building is required. I do not know of a better site than the present; a larger space would be better; you cannot take a hospital of that sort far out of the city; I think the present view and surroundings could hardly be matched anywhere; you could not get the services of the medical men far from Sydney. The place can be worked more economically in connection with the general hospital than in a separate and detached institution.  
 1285 &  
 1286 1291  
 1292 1341  
 1342 1328  
 1343 1299  
 2400 2402 *Dr. Maher.*—There is no objection to the site; we have not sufficient room, and no operating theatre; there is not sufficient land for proper exercise; we get very good results. The hospital might be on any suitable site in Sydney, and it would be better as a distinct institution. The present buildings are utterly unsuitable; there is not sufficient ground; there should be provision for 100 beds; the place is overcrowded, and patients are constantly being sent away.  
 2405 2427  
 2437 2429  
 299 *Dr. Paton.*—I think eye cases should be treated in the main Sydney hospital, room could be made for the Moorcliff cases by addition to the (Sydney) hospital.  
 1483 *Dr. McClelland.*—I think it would be cheaper, and in every way more satisfactory, if the eye patients were in the same grounds, or under the same roof, as the rest of the patients; they could be provided for in the present (Sydney) hospital by building a ward on each of the tops of the other wards. I advise that, rather than a new building.  
 1488 *Dr. Graham.*—I do not think the Moorcliff branch is necessary, many of the cases are chronic lid cases which could be treated quite as well, and better, at Little Bay. The portion of the Sydney building, now occupied by lock cases, should be emptied out, and the eye cases put there.  
 1724  
 2411 *Dr. Maher.*—Granular cases are chronic, and remain in a long time. I do not think the ordinary practitioner would be quite able to treat cases of granular lids, they are the most difficult cases to treat properly. If the hospital were out of town it would be very inconvenient for specialists to attend.  
 2417  
 2438  
 2628 *Dr. Mackellar.*—An eye hospital is necessary; Moorcliff serves very well for the purpose; but if a wing of the general hospital were devoted to the same purpose it would serve equally well, and would probably be administered somewhat cheaper. Chronic cases of eye diseases might be perfectly well treated elsewhere; there is no occasion for keeping up an expensive hospital for their treatment.  
 2630  
 1493 *Dr. McClelland.*—A very large proportion of the cases treated at Moorcliff are cases of granular conjunctivitis, a great number of which could be treated anywhere, those that come from the country seem to do well without any treatment. The change of climate seems to go a long way towards their cure. With proper surgical skill and nursing half the cases treated at Moorcliff could be treated in one of the asylums. It would be necessary to have skilled ophthalmic surgeons for operations. There are sixty-six beds at Moorcliff.  
 1497  
 1393  
 300-303 *Dr. Paton.*—Last year there were 325 order cases. The length of stay of those eye cases is very much greater than that of ordinary cases. I have known cases to remain in Moorcliff Hospital for at least a year.  
 449-450 *Sir Arthur Renwick.*—The institution attracts patients from the other Colonies; they come from Queensland and from parts of Victoria.  
 1312 *Dr. Evans.*—A good number of patients came from Queensland, some from Western Australia, and a very few, I think, from Victoria.  
 1510  
 608-609 *Dr. McClelland.*—The majority of ophthalmic cases from other colonies is from Queensland.  
 1540-2 *Mr. James Ewan (Hon. Treasurer).*—The Government pay the rent of Moorcliff (£350) and nearly all the fees; what we receive from the Government pays the full cost and a small amount of profit.  
 2421-3 *Miss Rose Creal (Matron, Moorcliff).*—The sleeping accommodation for the nurses is not good, there being three, four, five, and six in a room; the rooms are large and well ventilated. We want more accommodation. The two probationers do the scrubbing. I cannot ask for more nurses, because I have nowhere to put them.  
*Dr. Maher.*—Moorcliff is taken very little advantage of by the students of the University. The visiting hour may not suit them; they go to the Sydney Hospital.  
 Dr.

<i>Dr. Maher.</i> —If Moorcliff were abolished, I think there should be an ophthalmic hospital, with at least 100 beds for patients, on any suitable site in Sydney. I think it would be better as a distinct institution; but it could be managed satisfactorily in connection with one of the existing hospitals.	2404 — 2407 1299
<i>Dr. Evans.</i> —I think Moorcliff could be worked more economically in connection with the general hospital than in a separate and detached institution.	
<i>Dr. MacCormick.</i> —An ophthalmic hospital could be attached to a general hospital as long as there is plenty of room to put up separate buildings.	2713

## DISPENSARIES.

<i>Sir Arthur Reucick.</i> —I think it very advisable that some dispensary system should be established in Sydney. If people were treated in their own homes, it would save the admission of a great many people to the hospital. At one time there was a dispensary surgeon attached to each ward of the city. The surgeons gave orders for medicine to the poor people they visited, and the medicines were got at the hospital. It was a great boon.	495 — 500
<i>Dr. Purser.</i> —I think it would be a very good thing if dispensaries could be established in Sydney on the lines of those in the Old Country. There are many who would prefer to be treated in their own homes.	2143—2146
<i>Dr. MacCulloch.</i> —Under proper supervision a free dispensary would be a very good thing. The system obtains in Edinburgh to a large extent at very little expense and a very great saving to the hospitals.	2581—2586
<i>Dr. Knaggs.</i> —I think a dispensary at which patients could attend as out-patients, and from which in case of illness they could be attended at their own homes, would be of great service, and would prevent people from going to hospitals who are now obliged to go there.	2604—2607
<i>Dr. Kelly.</i> —In Edinburgh the people go to the dispensaries and get attended to by the doctors, or are visited at their own homes. A dispensary like that would take off a large number of applicants who go to the hospital admission depôt.	2692
<i>Dr. MacCormick.</i> —A dispensary would relieve the out-patients' department of the hospital, and it would provide a field for teaching students for the University. In Edinburgh they visit the patients; when they are in trouble or doubt a fully-qualified medical man is called in. If such a dispensary could be established here, it would be a very desirable thing; it would relieve the hospitals of in-patients, and there would be more beds for urgent cases.	2737—2742 2745 — 2746
<i>Dr. J. Graham.</i> —If it was established as a dispensary similar to those in the old country, where a doctor resides and attends casualties, sets broken arms, extracts teeth, makes casual visits to deliver women taken ill, and so on. We should make a pure dispensary of it, and put it under the rule of some charitable organisation; then I think it could be made to do good work, but as it is now I do not think it is a credit to any scientific institution.	1695
You would have more than one medical officer for the whole of Sydney? I think one man could do the work, because the amount of casualty work that you get is very slight. I know from my experience of the Old Country that one resident dispenser in a huge district can do a great deal of work of that kind. I think there is a want of that type of assistance. I suggested that it might be handed over to the Students' Medical Society, who might run it themselves. It might be conducted as a medical mission, where you combine religion with medical work. That type of work is carried on all the world over.	1696
A medical mission? Yes; or purely a dispensary.	1697
On English lines, visiting people in their own homes? Yes.	1698
You are of opinion that there is a want of that sort? Yes, a distinct want. The experience of every medical man in the city is that there is a difficulty of knowing what to tell poor people when they come begging you to see a sick man or woman. You send them to a hospital unless you go and attend them as a matter of charity, which you often have to do. A man comes weeping and tells you that his child has broken its arm, or that he has a wife who is dying, and he is in destitute circumstances, and you must either attend as a matter of charity or send the case to the hospital.	1699
Then they go to the police, the police surgeon is sent for, and they are sent into the hospital to occupy beds, he not having time to attend them? Yes.	1700
Do you think an institution of this kind properly administered would prevent a good many people being sent to the hospital who are now sent there? Yes, I think it would. It would relieve the hospital very much of a form of congestion which should not exist.	1701

## COAST HOSPITAL, LOCK AND INFECTIOUS CASES.

<i>Dr. Thompson.</i> —Buildings exclusively of wood and iron, excepting lately erected laundry, not yet in use. Scattered over a very wide area; although there is one staff, they are, in reality, two separate establishments. The distance between the buildings adds very much to the difficulty of management. There are no proper bathrooms, and there is no hot water laid on to the wards. New kitchens are required. The objections to the present buildings are their scattered distribution over the area and their primitive construction. Another objection is the distance from which patients have to be removed. Lately they had to remove a patient from a distance of 21 miles to the hospital. Whenever a patient is removed to the Coast Hospital (unless from Botany) a distance of 16 miles has to be travelled—8 miles each way. The present arrangement of the hospital is reasonable for a small-pox hospital for temporary use, but it is a very bad arrangement for a general hospital. There are ten wards on one verandah, which is the eighth of a mile long; the sanatorium, containing 100 beds, is half a mile away from the offices, half a mile away from the residence of the house surgeons, and 300 or 400 yards from the residence of the medical superintendent. I think it would be quite wrong to make it an infectious hospital. I do not think the tram would improve matters. It is the only hospital where infectious cases are regularly received.	2 — 3 9 19 13 14
<i>Dr. Paton.</i> —The Coast Hospital is suitable for infectious diseases; the distance is too great, and if a patient is too ill to be removed to the Coast I have to put him in one of the metropolitan hospitals. I think the Coast Hospital is a suitable place for treating ordinary infectious diseases, excluding typhoid.	285 286
<i>Dr. Mackellar.</i> —The Coast Hospital is certainly unsuitable for certain infectious diseases—for instance, typhoid fever. I found the long distance from town decidedly prejudicial, unless in the very early stages. At that time a tramway was contemplated from the Botany terminus to Bare Island, with a branch to the hospital. Given a proper depôt and a tram starting at a definite time, once or twice a day, and with properly-arranged carriages, patients could be shifted from the ambulance much more easily by the tram than if they were taken all the way by the ambulance.	2615
<i>Dr. Sawkins.</i> —I do not think an extension of the Botany tram to the Coast Hospital would render the hospital more useful than at present.	2534
<i>Dr. Thompson.</i> —The cost of the ambulance service is about £6 per bed per annum.	26
<i>Dr. Paton.</i> —Patients nearly always wish to go to the Sydney or Prince Alfred Hospital. The objection to the Coast Hospital—they say if they go there they would not be able to see their friends.	252—254
<i>Dr. Paton.</i> —It would be desirable to have the hospital nearer.	353
<i>Dr. Thring.</i> —I do not object to the Coast Hospital, but it is a long way for patients to travel, especially those suffering from a serious attack of diphtheria or scarlet fever.	1790
The Coast Hospital would not do for acute cases of diphtheria; the hospital should be nearer Sydney.	1795
<i>Dr. Paton.</i> —I do not think it would be wise to make the Coast Hospital into an operative hospital—cases requiring considerable skill-involving the giving of chloroform.	247
<i>Dr. Mackellar.</i> —I do not think operations should be carried out at the Coast Hospital.	2665
<i>Dr. Paton.</i> —I think the lock cases should be treated at the Coast Hospital. If the female cases were transferred to the Coast there would have to be an enclosure.	293—294
<i>Dr. Mackellar.</i> —I think the Coast Hospital is entirely unsuitable for a female lock hospital, even if they were fenced in and under proper supervision.	1622

Dr.

- 12-16 — *Dr. Thompson.*—If the present Coast Hospital were abolished it might be used as a convalescent hospital, or for some of the chronic cases in the asylums; but I think its use for an acute hospital is a mistake. It would be quite wrong to make it an infectious hospital, which should be within easy reach of the population to be served by it, and the sooner after notice that isolation is effected the better will prevention be attained. The length of the journey is decidedly harmful to people who are really ill. The Coast Hospital might be used for a general hospital or a poor-house hospital, so long as acute cases are not admitted. It is the only hospital where infectious cases are regularly received.
- 41 —
- 66 —
- 286-294 — *Dr. Paton.*—I think the Coast Hospital is a suitable place for treating infectious diseases. The female lock cases now treated at the Sydney Hospital should be provided for at the Coast Hospital; but there would have to be an enclosure. The eye cases now treated at Moorcliff should be treated in the main hospital. It is desirable that the hospital should be thrown open to the medical faculty to perform operations and attend medical cases; but it is too far away for that. The Coast Hospital would be very much more useful if it was close to Sydney. We send male venereal cases to the Coast and the women to the Sydney Hospital. The men at the Coast are attended by the wardsmen.
- 299 —
- 350-353 —
- 357-358 —
- 861 — *Professor Wilson.*—There is no special lock-ward at the Prince Alfred.
- 918 — It requires a very large population to justify the establishment of special hospitals for the minor departments. It may be different in gynecological cases; but in regard to all other cases the necessities of the community can be amply satisfied in connection with a large hospital, even ophthalmic cases, which can be treated quite as well in a general hospital as in a special hospital.
- 1588 — *Dr. Clutbe.*—A new infectious-disease hospital should be somewhere central. It should be get-at-able, so that acute cases may be safely conveyed to it. If there was a small receiving hospital near Sydney for diphtheria and urgent cases, the majority might go to the Coast Hospital.
- 1622 —
- 1723 — *Dr. Graham.*—There is a portion of the Sydney Hospital building set apart for lock cases; but the place is, I think, quite unsuited for that line of work. That part of the hospital ought to be emptied of its contents, and the eye cases should be put there, so that Moorcliff could be done away with.
- 1724 —
- 1790 — *Dr. Thring.*—I do not object to the Coast Hospital; but it is a long way for patients to travel, especially patients suffering from a serious attack of diphtheria or scarlet fever. An infectious-disease hospital should take in all infectious diseases—diphtheria, German measles, whooping-cough, lock cases, and erysipelas. It requires to be a large hospital, with pavilions for each. A large area would be required, which it would be difficult to get near Sydney. If the present hospital at the Glebe is removed it would be necessary to have some receiving hospital for bad cases of diphtheria near the centre of population. About a lock hospital, it seems to me that the want would probably be best met by having a lock ward attached to the general hospitals. I suppose we must look on the metropolitan hospitals as teaching schools; and if the lock wards were there the students could utilise them more easily. Then there is no doubt that to go into a lock hospital and to come out of it attaches a stigma to any man or woman. It would be easier to get women to go into a lock ward of a general hospital than into a lock hospital. No one knows who goes into the lock ward at the Coast Hospital.
- 1795 —
- 1802 — *Dr. Mackellar.*—I think the Coast Hospital is entirely unsuitable for female lock patients. There would be very great difficulty in separating them from the male patients there, and distance would be a great objection. An institution such as that should be in such a situation that those persons who are affected could readily obtain access without any trouble. I still would recommend the establishment of a lock hospital within convenient access of Sydney, to which unfortunate females might voluntarily go. I would like to emphatically say that the institution which is designed to treat women should be separated from any other institution, that it should be absolutely private, and that there should be no police supervision whatever. The reason why these people do not go for treatment is that they are overlooked, as it were, by servants of the institution and by the visitors to the general hospitals. I do not think that operations should be carried on at the Coast Hospital; they should be left to the large general hospital. The patient would be much more likely to obtain thoroughly efficient surgical treatment in the general hospitals than they could possibly obtain at the Coast Hospital.
- 2622 —
- 2623 —
- 2652 —
- 2653 —
- 2657 —
- 2658 —
- 2665 —

## NURSES.

- 460 — *Sir Arthur Renwick.*—With the limited accommodation we have (Sydney Hospital) it is impossible for us to increase the staff, although it would be very desirable indeed. I do not think the nurses have more to do than they ought to have. They never complain, and we have many applications for positions. After a nurse has been one year in the institution, and has passed the probationer's stage, she rarely makes any complaint. It is only during the probationary stage that any difficulty happens. We keep wardsmen to do the scrubbing. There are so many applications that it takes nearly two years before a person can get on the staff. The position has been very much sought after for years.
- 471 —
- 481 — *Miss N. Gould* (Matron, Sydney Hospital).—Any applicant bringing suitable references, if she looks suitable, is put on the list, and then taken on in her turn. All the nurses have three hours every day. If they do more than ten and a half hours' duty it has to be paid back to them. They are supposed to have every day three hours off. Sisters and head nurses get one hour less. The leave of absence given is: To sisters, twenty-four hours in the month; head nurses, twenty-four hours the second and third years; all other nurses have from 10 o'clock once a month; probationers have from 11 o'clock once a month. The annual leave granted is: Fourteen days for the nursing staff, three weeks for head-nurses, and a month for sisters. I have not heard much complaint. Of course, for ten and a half hours they have to work hard; those who are strong seem to stand it very well. I have known those who were not strong to work well if they have good heads, methodical. My conclusion is that the nurses are not overworked.
- 487 —
- 641 — *Dr. Pain* (Prince Alfred Hospital).—Except so far as stress of work, involving extra duties, is concerned, the nurses are, as far as I know, quite satisfied with their hours. There has been no outcry for diminution of hours. A very great number apply; not more than one in three is found suitable by the matron. They sometimes have to wait two years for a vacancy; a number break down at an early stage. I do not think the work presses very hard upon them.
- 660 — *Dr. Wigan* (Armidale Hospital).—We have trained nurses ourselves for many years, women from our own district. We have not imported a nurse direct for eight or nine years. We get very good service, indeed. Our head-nurse has been eight years, and the matron eight or nine years, with us. I think they get a better training than the nurses get at Sydney, their training is more general, and they have more responsibility placed upon them. It would not be possible to work the hospital on the eight-hours system. Our nurses do not complain of the hours they have to work.
- 677 — *The Mother Beatrix* (St. Vincent's).—The nurses train for three years; they pay a premium of 10 guineas. The principal part of the cleaning is done by charwomen. The nurses have nothing for the first year, £10 for the second, and £12 for the third. The Sisters take no salary. The nurses go into the wards at 7-30, and go finally off duty at 8 o'clock, with one hour off every day for rest, not counting time for meals. The leave they have is one afternoon a week, and a fortnight every year.
- 1009 — *Dr. Evans* (Moorcliff).—The nursing is excellent.
- 1015 — *Miss S. B. McGahey* (Matron, Prince Alfred).—The number of nurses is sufficient for the purposes of the hospital. Sometimes there is extra work; but if there were three additional nurses I should then be able to keep the nurses on ten hours' duty daily. The long hours occur occasionally; they do not like to work longer than ten hours, some would prefer shorter hours. Our time-table is nine hours twenty minutes. The nurses and probationers get three weeks annually, the sisters have thirty days in the year. I do not consider they are overworked. The applications for employment are far in excess of our requirements.
- 1048 —
- 1178 — *Dr. McClelland* (Sydney Hospital).—We cannot accommodate more nurses than we have at present, but there are two or three more required. You cannot say that they are overworked, but now and then some of them are called upon to do a few hours extra duty. After they have done ten and a half hours, that would be overwork; but the time is subsequently repaid.
- 1185 —
- 1238 — *Miss Rose Creal* (Matron, Sydney Hospital).—We could do with a few more nurses. They do not complain of overwork. Sometimes we keep them a little over time. If the infectious wards are in use, I think we really want about three more. The sisters get thirty days, the head-nurses twenty-one days, and the juniors and probationers fourteen days leave in every year; also twenty-four hours off once a month for sisters and head-nurses, twelve hours for nurses, and probationers, nine hours. After completing their training, some of them grumble a little amongst themselves about scrubbing. They have a certain amount of scrubbing to do. I cannot ask for more nurses, because I have nowhere to put them. Nurses should do a certain amount of domestic work; I think it helps to weed out undesirable persons. During last year we had fifteen vacancies; we took on thirty, one-half of whom proved unfit for the work.
- 1246 —
- 1261-3 —
- 1277 —
- 1367 —
- 1469 —
- 1521 —
- 1555 —



<i>Dr. Clubbe</i> (Children's Hospital).—The nursing arrangements are very satisfactory. Our nurses have eight hours' duty. There are three relays.	1563, 1598
<i>Mr. Cecil Griffiths</i> (Treasurer, Children's Hospital).—The medical staff give lectures, and the nurses have to pass examinations. We have no difficulty about getting nurses.	1992-1993
<i>Dr. Sawkins</i> (Prince Alfred Hospital).—I do not think the nurses are overworked; they are on duty ten and a half hours a day, but they are not doing hard work all that time. I am certain they are not overworked. They improve in physique and appearance during the three years they are in the hospital.	2523 2525

## IN-PATIENTS—OUT-PATIENTS—PAYING PATIENTS.

<i>Dr. Thompson</i> .—A small sum is received at the Coast Hospital from relations of patients; it amounted last year to from £200 to £300. Dr. Paton is responsible for the admission of patients.	48, 73
<i>Dr. Paton</i> .—A number of people who could afford to pay very often apply at the hospital admission dépôt. After simple inquiry of the applicants, as to what property they possess, I have rejected upwards of 300 a year. I do not think it pays the hospital to take a patient for less than 25s. a week. The enormous number of out-patients at the hospital has struck me; between 45,000 and 50,000 does seem a large number for the metropolis.	267-84
<i>Sir A. Renwick</i> .—We take paying patients (Sydney Hospital). We only ask 1 guinea per week.	515-6
<i>Mr. James Ewan</i> (Treasurer).—We (Sydney Hospital) receive from 10s. to £2 2s. per week.	577
<i>Sir E. Knox</i> (Treasurer, Prince Alfred Hospital).—The income from paying patients is not increasing. We receive about £2,400 per annum. There are advantages and disadvantages connected with the receipt of payments from patients.	813
<i>Professor Wilson</i> (Hon. Sec., Prince Alfred Hospital).—We no longer receive patients in private wards, unless under certain very special cases.	845
<i>The Mother Rectress</i> (St. Vincent's).—Our charge for private rooms is from 3 to 4 guineas per week; the average payments by patients in the ordinary wards is 14s. per week. Half the revenue from patients is contributed by private rooms.	924
<i>Dr. Evans</i> (Moorcliff).—I am strongly opposed to allowing paying patients to go into hospitals. I do not know what is to be done in the case of patients who are able to pay small sums, but yet require help. I do not approve of the charge of 1s. for the registration of out-patients. I think that every means of getting money from patients is a mistake.	1220 1252
<i>Dr. Clubbe</i> (Children's Hospital).—I do not think patients ought to be charged anything at all. Perhaps one would have to draw the line in cases requiring an operation, where they could not pay for the operation, but if it was a purely medical case I would not take the patient if he could pay £1 per week. We are pauperising the people, and the hospitals are not doing their legitimate work. People who have no money are crowded out. I object altogether to the payment system. Taking in richer people, and getting payment from them, deters subscribers. I object to the registration fee of 1s. If the people are so poor that they have to come to the hospital they ought not to be asked to pay anything. The payment of tram-fares is very hard on some, and those on whom it is not hard ought not to come. The hospitals should be entirely for the use of the necessitous poor.	1352-7
<i>Dr. Graham</i> .—It seems to me that all you can do is to educate the people up to the fact that the hospital is only a place for poor people. I think there are more abuses in the hospital system in England. In Sydney it is abused, but I have not been able to find any serious amount of abuse. I do not see what harm you do in collecting a few shillings from patients who come to you. You relieve the patient of the bitter feeling that he is at the hospital entirely on sufferance. I think it is humane to say, pay what you can. I have taken 6d., 2s. 6d., and 7s. 6d. If a patient would readily pay £2 or £3 a week I would not take that patient in unless I thought his circumstances demanded it. You have to leave it to the discretion of the management. If it was a case of hernia, which required two doctors and two nurses, and the great expense of a surgical operation, I would recommend that case without hesitation. I think making a profit is an unjustifiable position for any hospital to take up. The shilling fee for registration of out-door patients comes under the same category as taking a collection from patients who come in. I have watched the type who came in before and since the shilling charge was begun, and I find it is not altered, and we get £600 a year from a class of people from whom we got nothing before.	1623 1639
<i>Dr. Thring</i> .—The payment system is a difficult question. My experience is that abuses are more likely to be found amongst in-patients than amongst out-patients, and particularly amongst the surgical cases rather than amongst the medical cases. It has always struck me that people have no right to fill up beds in public hospitals (which are primarily charitable institutions) when they could afford to go into private hospitals, or to have their nursing done at home. I have tried to help them by saying, "Most of you cannot pay my fee; I will do the operation for you if you will pay the nursing fees"—thus keeping them out of the hospital.	1666
I find that patients do get into the hospital who ought not to be there. A woman's husband was ready to pay a 50-guinea fee, but she was admitted into my ward and I operated on her. That was an abuse of charity. Such patients simply take up beds that are intended for necessitous cases, and they are practically defrauding the honorary staff.	1704
I certainly find it difficult to lay down a general rule. The hospitals should not make a profit; they should not be conducted on commercial lines. The maximum charge should be the mere cost of maintenance, it being understood that the patient is not able to pay the ordinary fee for outside attendance.	1710
<i>Dr. Foreman</i> .—I think the system of payment by patients in hospitals is absolutely wrong in principle. A public hospital is a charity intended only for people in necessitous circumstances. The friendless are those who are put in the back ground, and those who are able to pay can get attention at once. If they can pay £1 they are taken without question. If they can pay £2 they are received with open arms. It is a very hard drain upon those who can pay only 10s. a week. It is worse for them than for many others to pay a nurse outside 2 guineas a week. If a man getting £2 a week has to pay 10s. a week for his wife in hospital I do not think they should take the 10s. from him. If he has to keep a family on £2 a week he is entitled to hospital treatment. It is not only they have to pay the 10s. a week, but they have to pay somebody to take the wife's place at home. When they pay 5s. or 10s. per week the idea of charity ceases. If they pay £1 a week they think they are entitled to extra attention. If they pay £2 a week the airs they put on towards the other unfortunates in the ward you could not believe unless you saw them. I do not approve of payments by out-patients for registration. I do not think they ought to pay a penny in the out-patients' room.	1743-54
<i>Mr. Cecil Griffiths</i> (Hon. Treasurer, Children's Hospital).—We received £408 from patients last year. We have not received in any instance in excess of cost. The highest we got was 15s. or £1 per week, and they go down to 2s. and 1s. We have a registration fee of 1s. for out-patients, but it is not enforced. Last month the out-patients paid £6 10s., but that is not anything like what 1s. each would come to. We had 10,885 out-patient attendances in 1898.	1805
<i>Dr. Chisholm</i> .—On the ground that hospitals are charitable institutions, and the honorary staff give their services to the sick poor, I am not in favour of having a system of payments by patients. The honorary officers should not give their services to those who are able to pay. If a patient prefers to pay something I do not know that there would be any objection to his sending a cheque, according to his means, as a donation. I do not approve of payment for the registration of out-patients; you make him feel that he is paying for what he is getting, and that is one objection. I think the hospital is most shamefully abused by both in-patients and out-patients. It seems to me that the hospital I am connected with does not take any trouble at all to minimise the abuse. It is necessary to have an inquiry officer to visit the homes of patients. When it began to be known that endeavours were being made to prevent abuses there would be less need for his services.	2005 2023
<i>Dr. Purser</i> .—I do not think there ought to be any set payments per week from the patients. I would not take any payments at all except in the shape of some little donation—not set payments per week. I think it is a pernicious system. I formed the opinion I have expressed before I had been long Medical Superintendent at the Prince Alfred Hospital. People get into the hospital under false pretences, people who could pay a fair fee outside, and had no right to be there. I do not think the hospitals should make a profit out of patients, and I do not think that private wards are necessary in a hospital. I do not see why a person who can pay 35s. a week should occupy a bed to the exclusion of persons who cannot pay at all. The hospitals are subsidized by the Government for the poor and indigent. I think it is a fact that patients who are able to pay are more readily received at hospitals than those who are not able to pay. I am sure the Committee are more pleased the more paying patients they get each month than they are at having so many non-paying patients.	2030 2043
	2147
	2154

The

- 2186 The cases of people who could pay 5s., or 12s. 6d., 15s., or up to £1, and could pay no more, should be provided for somehow, the crux is to know how or where. In a general hospital there should be no payment at all, such hospitals should be for accident and emergency cases, and for the poor and needy.
- 2187
- 2239 *Mr. D. H. Easton* (President, Balmain Hospital).—Patients are supposed to pay, if they cannot, we take what they can give us. We got £71 last year. Some pay 10s., some 5s., and some the whole amount charged, viz., 3s. per day. They are recommended to give a coin before they leave; if they cannot pay they are allowed to go. Inquiry is made into their circumstances, and if the Committee think they can pay they are written to for the money.
- 2241
- 2430-2 *Dr. Maher*.—It is very difficult to inquire into the cases, especially from the country. I have no doubt that the hospitals are abused, I would not say very much abused, but they are abused. It is only by accident that I have found out that persons who have been in the hospital and received gratuitous treatment were fairly well to do.
- 2499 *Dr. Purser*.—There should be no question of payment in the case of hospital patients. The idea would be to treat them absolutely gratuitously. If a patient can pay 5s. he will expect everything, and will think he has a right to everything. The hospital ought not to make any profit out of patients. The admission of patients who are able to pay excludes those who are unable to pay. I do not think the Directors have anything to do with it. Of course they are very pleased to see that the amount received for patients totals up more each year.
- 2504
- 2636 *Dr. Mackellar*.—I think the pay system is most pernicious. I have always been strongly opposed to it. The only method by which patients should obtain admission should be by showing that they are in a necessitous condition, and that they are eligible from a medical point of view. The payment of 2s., 3s., or 4s. a week induces a large number of persons to avail themselves of the hospital who otherwise would not do so. Perhaps these persons go away with the idea that they are paying for their treatment when they are not even paying for the food they eat, independently of their treatment, or of the general expense to which the Government is put in the erection of the hospital or its administration. I object to all payments; they sap the fountain of public benevolence. It is one of the reasons why the public subscribe so little—the system altogether destroys the benevolent idea. If persons needing hospital accommodation are able to pay 5s. or 10s. a week I would admit them without payment, in preference to letting them pay 5s. a week, even though willing. A person who can pay but 5s. a week is in what I would call a necessitous condition. I would require those who could pay 15s. or 20s. to go to a private hospital. At present there is no private hospital which could accommodate patients who could pay such a fee, but I have no doubt that such an institution would be established if the necessity for it arose. I do not approve of the 1s. registration fee for out-patients. If a patient can pay no more than 1s. he is in necessitous circumstances. I do not object to donations; I think it is very desirable that they should be allowed to give as much as they please, but that they should give so much for registration or for each week of treatment is undesirable.
- 2681 *Dr. R. V. Kelly*.—I do not approve of money being demanded from patients. I do not object to patients giving money voluntarily. The difficulty might be met by dividing the hospitals so as to have one absolutely free, and another available to persons on payment of a graduated scale of charges, and a scale of small comforts.
- 2682
- 2698 *Dr. MacCormick*.—The hospital is a charitable institution pure and simple, but when the patients pay they do not look upon it as a charitable institution. I am opposed to payment being received from patients under any circumstances; that applies also to the charge for the registration of out-patients. I send a number of patients to the hospital, and I only take their word as to whether or not they can afford to pay. If patients are able to pay something, but cannot pay the heavy charges in connection with private hospitals, I should take them for nothing in a general hospital.
- 2706
- 2726 *Sir Arthur Renwick*.—Patients who are able to do so, pay. We ask 1 guinea per week, but there are some who could just as easily pay 5 guineas. We have no private accommodation. I do not think the hospital relief is much abused.
- 516-517 *Mr. James Ewan* (Treasurer, Sydney Hospital).—The payments by patients varied from 10s. to £2 2s. per week, and we received from out-door patients, in shillings, £660.
- 577-579 *Dr. Cluthe*.—I do not think any charge should be made. Perhaps one would have to draw the line in cases requiring an operation, where they could not pay. But if it were a purely medical case I would not take a patient who could pay £1 per week. People who have no money are crowded out, whilst those who can afford to pay proper fees come in without shame and say, "We are paying"; but they are not paying. If the hospitals did not take such cases, private hospitals would spring up at once, and, I think, at a cheaper rate. I do not think that hospitals should make a profit out of any of their cases. I think the admission of richer people rather deters subscribers. It is advisable that inquiries should be made at the peoples' homes; the very fact of it being known that inquiries will be made is very likely to act as a deterrent. The out-patients' department has increased—very strict inquiry is made into the position of every applicant to the out-patients' department, and people are refused every day, but the inquiries are only made at the hospital.
- 1623-1625 *Dr. Thompson*.—No steps are taken to ascertain the competence of patients or their relatives to pay any portion of their treatment and maintenance. I think it highly desirable to take steps. Patients suffering from infectious diseases ought to be admitted without question of ability to pay.
- 1630-1632
- 1636
- 1641-1642
- 1644-1647
- 50-51

## FRIENDLY SOCIETIES—CLUBS AND LODGES.

- 500 *Sir Arthur Renwick*.—There is no relief to the hospitals in connection with the friendly societies.
- 835 *Sir E. Knox*.—The railway and tramway employees' society is the only one with which we have an arrangement; they send their patients and pay 15s. a week for each of them, on the understanding that at the end of the year whatever surplus there may be in the funds is to be distributed between the hospitals. In that way we have received about 30s. a week for all the time the patients have been in the hospital.
- 993 *Professor Wilson*.—The medical and surgical requirements of non-indigent out-patients might constantly be satisfied by clubs. If they can afford to pay, they can afford to be members of a club.
- 1057 *Dr. Pain*.—The proprietors of the Helensburgh Colliery, by virtue of a payment of £130 a year, have a right to have any miner who is injured in the colliery admitted to the Prince Alfred Hospital at once, without question.
- 1733 *Dr. Graham*.—There are two medical aid societies—one established by a private company and the other by the British Medical Association. The private company pays the medical men they employ and divide the profits. The Medical Society is conducted on similar lines, but the money is divided between those who offer their services.
- 1870 *Dr. Foreman*.—A great many doctors send club patients to the hospitals, particularly where they want operations performed.
- 1883-1884 *Dr. A. O'Hara*.—I am hon. secretary of the City and Suburban Provident Medical Association. It was started about eighteen months ago; the income averages £36 a week, and we have enrolled about 2,500 members, 1,700 of whom are financial members. We pay all expenses, including the chemist, and the rest of the money is divided amongst the doctors, according to the number of patients they have on their list.
- 1894
- 1899
- 1911
- 2063 *Dr. Chisholm*.—The greatest abuse in connection with club patients is owing to the medical men. A patient gets ill and requires an operation. The doctor says, "Your house is not suitable for such an operation; you ought to go to the hospital." Thus people are sent to the hospital who are well able to pay. I approve of the Provident Medical Association; I am one of the consulting officers. I think it is on proper lines, and will diminish the number of out-patients at the hospitals. A man getting 35s. to £2 a week should belong to a club, and pay 25s. or 30s. a year, so as to obtain treatment for minor ailments. If he is unfortunate enough to break his leg, take him into the hospital, and let us give him all we can give him without extorting money from him.
- 2068
- 2072 *Dr. Cluthe*.—That portion of the population not belonging to the working classes who have incomes from £200 to £300 a year can be dealt with by joining the Medical Aid Society. It was started by the medical men, and every doctor in Sydney does or can belong to it, and certain of us are on the consulting staff. The fees are very small.
- 1667 *Dr. Purser*.—I approve of the Provident Medical Aid Association. I am one of the active medical officers. It is working satisfactorily; no one is admitted whose salary is over a certain amount. There is a large class of the population who cannot join either the Provident Medical Association or an ordinary club, because of the condition of their health. The Medical Aid Association is not in any sense a charity, and I am not aware that it is so regarded by the medical profession.
- 2242 *Mr. F. Sparrow*.—The People's Prudential Benefit Society, Limited, has been established about three years. The primary object is to provide medical attendance and medicines for a fixed weekly payment; for a slightly higher payment we guarantee payment of a fixed sum on the death of a member, a member's wife, or the death of children, and certain weekly payments during certain diseases. It is a proprietary concern, with a paid-up capital of about £4,000, managed by a Board. The revenue for 1898 was about £12,000, and the number of members between 5,000 and 6,000. We publish our list of medical officers, and members can select for themselves. Our membership is from 5,000 to 6,000—that would mean medical attendance to 30,000 individuals.
- 2284
- Mr.

<i>Mr. John Gelding.</i> —(Sec. Manchester Unity O.O.F.). The lodges have a medical institute, with doctors and dispensers. They have four doctors, who attend 4,000 members and their wives and children. When the doctors have patients for surgical operations they send them to the hospital. I give an order; if it is a single man I say, "You will have to pay so much off your sick pay to the hospital." If it is a married man with a family, I write and say the family want all the money. We pay £10 a year to the Sydney and Prince Alfred Hospitals; they do very well out of us, I think. I suppose there are about 19,000 in our Order in New South Wales. We pay our doctors £250 a year each, and fees for midwifery cases.	2296 — 2310 2314 — 2315 2339
<i>Mr. A. Davis</i> (Registrar of Friendly Societies).—There are about 70,000 members of friendly societies in New South Wales, representing 315,000 people, obtaining medical assistance and medicine.	2390—2392
<i>Dr. Sawkins</i> (Medical Officer of the U.O.O.F.).—The waiting-rooms at the dispensary are convenient and the drugs are of good quality.	2402 2464
<i>Dr. S. H. MacCulloch</i> (Medical Officer Oddfellows and Protestant Alliance).—I think these societies are absolutely necessary for the working classes. No man with a salary of £3 a week, and a family of five persons can afford to pay medical fees, and there is nothing between the hospital and the payment of high medical fees, except those friendly societies.	2575

## GENERAL.

<i>Dr. Thompson.</i> —When you go into figures and details, I think you will very likely find that it will be cheaper for the Government to put up a hospital for themselves than to pay other institutions for receiving their cases.	81
<i>Sir Arthur Renwick.</i> —I quite concur in the statement made by Dr. MacLaurin that great gain would result from bringing the medical charitable institutions under one controlling Board; the services would be carried out with greater economy; there would be an absence of competition between different institutions, and patients could be sent at once to the particular hospitals for which their cases were suited. I should be very glad if the hospitals were placed under one Board. It would be a great mistake in the public interest to reduce the number of members of the Board too much. My idea was, and is, that all the charitable institutions should be placed under either a small Board, or under one person. In other words, we should have three persons or one person, whichever it might be, looking after the subsidies, and the local Boards managing their own matters.	477—80
<i>Dr. Mackellar.</i> —In reply to questions put to me by the late Sir Alexander Stuart in 1883, I said, "The custom of granting Government aid to metropolitan hospitals, which are wholly unconnected with each other, and governed by distinct Boards, is fallacious, and calculated to be followed by extravagant expenditure. The establishment of a General Metropolitan Hospital Board would obviate this danger." My views have undergone no modification whatever. I do not know that the appointment of a Board to supervise all the expenditure in connection with the Government aid to charitable institutions would be necessary, if there were a Government officer whose duty it was from time to time to report upon all such institutions.	2659—63

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## ROYAL COMMISSION ON PUBLIC CHARITIES.

## MINUTES OF EVIDENCE.

MONDAY, 17 APRIL, 1899.

[The Commission met at the Offices of the Public Service Board at 2 p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).

F. N. MANNING, Esq., M.D.

J. POWELL, Esq., J.P.

J. BARLING, Esq., J.P.

CRITCHETT WALKER, Esq., C.M.G.

J. Ashburton Thompson, M.D., sworn and examined:—

1. *President.*] You are the Chief Medical Officer of the Government and President of the Board of Health? Yes.

2. *Dr. Manning.*] We shall be glad of your opinion as to the general character of the Coast Hospital and its thorough fitness for hospital purposes? The buildings of the Coast Hospital are exclusively of wood and iron, with the exception of a laundry which has just been added, and is not yet taken into use. They are exceedingly simple in construction, and in consequence of their having been erected a great many years ago, for another purpose altogether, they have not the convenience, finish, or appliances which are proper to hospital buildings. They are scattered over a very wide area, and, in point of fact, although there is only one staff, there are in reality two separate establishments within the enclosure; one, called the Sanatorium, which is half a mile away from the main buildings and the offices, the consequence of which is that it has its own nurses' quarters, its own kitchen, and a staff of its own, so that it is practically a separate hospital. That, of course, and the distance between the buildings in each of these divisions, adds very much to the difficulty of management, and to the expense of management to some extent, but greatly to the difficulty. The distances to be traversed backward and forward during the day by many members of the staff really are considerable. The place has been improved from time to time,—certain additions have been made. Thus it has been connected now for some years with the Sydney water supply, and some years ago it was seweraged; but even at this date there is no proper bathing provision. There are no proper bathrooms, and there is no hot water laid on to the wards, a thing which is necessary for due treatment of patients, though not for any other reason.

3. What would you consider to be the probable life of those buildings if repairs are kept up;—we are aware that they have already existed for a good many years? They have existed for seventeen years. I think that any statement as to their probable life would be better got from the Architect, who can judge from their present state and speak authoritatively on that point. As I have already mentioned, we have lately added a laundry, which cost a considerable sum of money, and it is now absolutely necessary that new kitchens should be built, which also will cost a large sum; perhaps between £1,000 and £1,500. The question should now be discussed whether the hospital is to stay where it is, before we spend any more money. If it is going to be continued, then, in my opinion, the buildings are now approaching a state which makes it desirable that they should be replaced, possibly pavilion by pavilion, in some more solid material. If that is to be done there is no reason why a large sum should not be spent in the erection of a suitable kitchen, and in making other improvements; but if it should be decided that it shall not continue in its present position, it would evidently be unwise to spend the large sum of money which I have mentioned, and others which must be contemplated. We should rather begin shortly to erect another hospital on any other site which may be chosen. It depends upon whether the hospital is to be kept there or not,—whether we can afford to spend a large sum of money on a kitchen and other such things.

4. *Mr. Barling.*] For the purpose of making a connected statement to your answer, will you kindly say what were the circumstances which called this building into being? The institution was hastily built during the small-pox outbreak of 1881-2, and it was intended as an additional quarantine ground. It was feared that there might be a very much larger number of cases occurring in Sydney, and that more room would be wanted than could be found at the Maritime Quarantine Ground. That accounts in part for the distance at which it is placed from Sydney, and for its isolated position; also for the very elementary character of the accommodation provided. It was never used for quarantine purposes.

5. *Mr. Critchett Walker.*] Was it not built with a view of ultimately taking the Quarantine establishment away from the present Quarantine Station which it was thought was becoming dangerous to Manly? No; I never heard that mentioned. All this, however, occurred before I came here. But it would be impracticable. You could not make a quarantine station on an exposed part of the coast.

6. No, I am aware of that, but I have always been under the impression that Mr. Eagar, the then Under Secretary for Finance and Trade, was anxious to remove the Quarantine Station, and hastily got these buildings erected in order to start it? It may have been so. I never heard it.

7. *Mr. Barling.*] Will you tell us the character of the cases now dealt with there? The acute and chronic cases admitted are those of destitute poor, in addition to infectious cases which are taken from much the same class, but not exclusively. No objection is made to admitting any person suffering from infectious disease.

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8. I suppose both surgical and medical cases are taken? Yes, both surgical and medical cases; but from the surgical list the major operations are excepted.

9. Will you state what you consider to be the objections to the present buildings and site? The objections to the present buildings consist, first in their scattered distribution over the area, and secondly, in their primitive construction. The buildings are made of wood and iron, which for convalescent cases might be sufficient, but for acute and infectious cases, are quite insufficient. The second objection is the distance of the place from the districts from which patients have to be removed—thus, for instance, on Saturday they had to remove a patient from a distance of 21 miles from the hospital, and removals from places as far distant as Chatswood, St. Leonards, Wahroonga, and Mosman's Bay are quite common. The route from these places is not direct, and every patient has to cross the water. Sometimes it is necessary to move a patient from the hospital to Newington. These exceedingly long journeys would not be necessary if the hospital were otherwise placed than it is. Whenever a patient is removed to the Coast Hospital, unless he happens to live at Botany, a distance of 8 miles has to be travelled, 8 miles there and 8 miles back being 16 miles. That is a sheer waste of labour. It is dead work.

10. What particular use is the Sanatorium put to? It is chiefly used for the isolation of infectious patients. The number of infectious cases under treatment varies very much indeed. When there is no large number of such patients certain wards are put to general hospital use.

11. *Mr. Critchett Walker.*] How long do you think those buildings will last at Little Bay? I would suggest that the Architect be referred to on that point.

12. Do you think that that site would be a suitable one for any other hospital purpose if the present hospital were abolished? Yes; it might be used for a convalescent hospital, or for some of the chronic cases in the asylums, but I think its use for an acute hospital is a mistake.

13. Do you think it would be sufficiently convenient for the metropolis if it were made a hospital for infectious diseases? I think it would be quite wrong to make it an infectious hospital, because the essence of an infectious hospital, which is a place quite as much for the prevention as for the treatment of disease, is that it should be within easy reach of the population to be served by it. The reasons are, first, that people are not willing to send their children when attacked by those diseases so far away that they cannot, at all events, call at the gates and ask about them with little trouble; and, secondly, when a case of infectious disease is reported and requires removal it is necessary that that removal should be effected within two or three hours of the receipt of the notice, the idea being the sooner after notice isolation is effected the better will prevention be attained.

14. But would this objection be raised if there were quicker means of communication—say, by tram—if the tram were extended *via* the hospital to La Perouse? If there was a tram to La Perouse, I presume that it would be on the Bunnerong Road to where it turns off to the hospital. I do not think the tram would improve matters very much.

15. It would not facilitate matters? No; you could not use it for the removal of patients. You would have to get the patient from his house to the tram, and having got him into a carriage it would be a pity to move him, even supposing that a tram were built for the purpose.

16. Yet they bring infectious and other cases on the railways some hundreds of miles? They may do that when they are obliged to. What the tram would do would be to get over a serious objection of quite another kind. It would enable the poor to get there and back to see their friends within a reasonable time. At present it is a matter of serious complaint with the poor that they cannot get to the Coast Hospital and back under the loss of a day or three-quarters of a day at least, and in addition to that they are a considerable sum out of pocket. Such patients are told that there is a bed for them at the Coast Hospital, so that they are obliged to go, and being there they are separated from their friends. Then, of course, there is the length of the journey, which is decidedly harmful to people who are really ill. If we take typhoid fever, of which we treat a considerable number of cases—163 last year—the death-rate at the Coast Hospital is considerably lower than that at the other hospitals; but then the reason is this—that experienced nurses are always sent to fetch typhoid patients, because of the danger of the long journey. When the nurse gets to the house she looks at the patient, and very often she feels obliged either to refuse to remove the patient or telephones for advice. That is the reason why our death-rate is lower than that of the other hospitals. It is not because the treatment is better, but because the cases are selected. The same thing applies to other acute cases.

17. Then you do not think that that would be a suitable place for an infectious hospital? No; I do not think it would be suitable, for the reasons I have given. I am quite sure that since an infectious hospital is for the prevention of disease it would be a tactical mistake to put one at that distance. You would discount the possibility of its doing what it is intended to do.

18. Do you think that if the wards of this hospital were more concentrated and built of more permanent material the hospital would be better adapted for its present purpose? I do not think, as far as I understand the general question, that the Coast Hospital—that is, a hospital of 280 beds—which has been kept going so long, could be got rid of; but whether it should be continued there or not is the point.

19. Then you see no objection to the present hospital except that it is built of temporary material? Well, you have to ask the question how long it is going to last. Wood and iron, especially in that situation, exposed to the salt air, do not last indefinitely; but there is objection to be found to the place on the score of the way in which the buildings are arranged. It is a reasonable arrangement for a small-pox hospital for temporary use. But it is a very bad arrangement for a general hospital. There are ten wards on one verandah, which is actually half a quarter of a mile long; and the Sanatorium, containing another 100 beds, is actually half a mile away from the offices, half a mile away from the residence of the house surgeons, and 300 or 400 yards away from the residence of the medical superintendent.

20. Then you think that if the buildings were reconstructed they ought to be more compact? Yes, undoubtedly. If it is not to be reconstructed, and if that bad arrangement is to be cancelled by using it as a poor-house, then as long as the buildings last I do not know but what they would do very well. The wards are rather nice, but each is pitched by itself like a tent. It is detached, and has not the necessary adjuncts. It is incomplete.

21. *Mr. Powell.*] Do you object to the site on the score of distance? Yes; I used to think that the distance was 9 miles, but lately mile-stones have been put down on the Bunnerong Road, and I find that the distance is either 10 miles, or very near 10 miles, from where we are now sitting.

22. How long have lepers been placed there? The first lepers went there in 1883, three Chinese. Then the few who were brought to the hospital were kept there in little huts which were built for them until in 1890, when Dr. Manning was Medical Adviser, a regular Lazaret was built.

23. *President.*] You referred to the difficulty of working the hospital economically for certain reasons, I understand those reasons are first, the nature of the building; secondly, the dispersion of the buildings over a wide area; third, the distance from town, entailing expense in the transit of patients. Yes.

24. Are the patients carried at the expense of the hospital? Yes. When you come to look at some of them you cannot say that they are fit to travel 15 or even 20 miles, but they must do so. Again, if the Ambulance Depot were 8 miles nearer Sydney it could do twice as much work as it does now.

25. *Dr. Manning.*] Will you give us the cost per head for the last year or two? Yes. I hand in a table which I put in my last report, which shows the cost per head with and without ambulance service, and the cost of wines and spirits for each of the years during which the hospital has been in regular use as a general hospital. The cost per head, everything included, for 1895 was £59; for 1896, £51; for 1897, it was practically the same figure; for 1898 it was nearly £71; that is £20 more than for 1896, and about £11 more than for 1895, or than it had ever been before.

26. I see that the cost for ambulance service is about £6 per bed annually? Yes; that would be a fair average figure.

27. What was the reason for the great rise in cost last year? Some of it was due to increased salaries. We had to put on an office boy, a wardsman, and a stableman; and we had no medical superintendent for seven months of the year, and the excess of temporary pay over what a permanent medical superintendent would get was £118. Then in order to give the nurses fifty-two days leave per annum regularly, it was necessary to add nine nurses and two servants. All that together accounts for £2 9s. 6d. per head of the increase. The remainder of the increase appears partly under the heading of drugs. We had an out-patient department in 1897, and in that year there were about 1,200 out-patients. Last year there were 2,400, and they consume a good many drugs. The difference in that respect amounted to nearly another £; but after all, the main part of the increase is shown under the head of provisions. That, I think, is due to three causes: In the first place, an institution like that cannot be run as it should be unless it has a permanent medical superintendent. The temporary superintendent whom we had did exceedingly well, but after all, his interest in the place was but temporary; secondly, the house surgeons are all practically students, and unless the medical superintendent keeps a very close watch over them a great deal of money will go upon extra milk, eggs, poultry, wines, and spirits; then, thirdly, last year there was a great deal of talk—not about the patients, but—about the nurses, who, I must say, are treated far better than those at any other hospital. Part of the extra cost has arisen from extra allowances. There is one very important item which does not fall under either of those three heads. During 1898 they managed to consume £600 worth of fresh fish. The reason of that is that there was a demand, more or less well founded, for more fish, and it was entered on the contract list at 1s. 4d. per lb.; so that if more fish were to be allowed, it was impossible but that the cost should be far in excess of what you would expect. Why it should be 1s. 4d. per lb. I do not know, but there it was. All this, now that we have a permanent medical superintendent, will require his strict attention, and will receive it. I think we shall have to revise the dietary scale altogether. There is a leakage which must inevitably occur as long as we have inexperienced house-surgeons there. Though it may be partly controlled, still it will always occur as long as young men have power to prescribe medical comforts and luxuries for the patients. I think it is a bad plan to employ them exclusively where there cannot be a large senior staff. I do not think it is quite fair to the patients, and I am quite sure that it interferes with the due control and economical management of the place.

28. The cost of the Coast Hospital during last year was £70 17s. 4½d. per bed? Yes.

29. Which is more than the cost at the Sydney Hospital, and nearly that at the Prince Alfred Hospital? Yes; and that has always been looked upon as very high.

30. I see from the report that during the year 1897 there were 461 cases of ordinary infectious disease, including chicken-pox, scarlet fever, diphtheria; 397 cases of venereal disease; 109 cases of erysipelas and septicaemia; eleven cases of diarrhoea; and thirty-one cases of berri-berri and malaria, and others, making a total of nearly 2,300 cases; does this represent the ordinary work of the hospital; does it show the average work of the hospital for the last two or three years? Yes; I think so.

31. So that the infectious disease cases, including the venereal cases, make up nearly one-half of the total number of cases in the hospital? Yes.

32. In addition, there were lepers;—will you give us the number? There are thirteen at the present date. The number last year was eighteen, falling to fifteen.

33. The venereal cases were all cases of males? Yes.

34. There has never been any provision for like cases of females? Never.

35. What are the objections to taking them at the Coast Hospital? The impossibility of controlling them—the impossibility of confining them to their wards.

36. Because the place is so much more open than an ordinary hospital? Yes.

37. Could not the ordinary cases that have been treated, other than the infectious cases I have mentioned, be treated as well under the Asylums Department and in the poor-house hospitals as at the Coast Hospital? About 30 per cent. of them in summer and autumn, and about 50 per cent. in winter might be treated in the poor-house hospital, but I am not quite sure whether they would all consent to go into a hospital attached to an asylum. They are working people, a large proportion of whom are destitute whilst they are ill, but when they get well again they will keep themselves. I doubt whether they would go into the Benevolent Asylum.

38. But a great number of people in the asylum are only inmates whilst they are ill, and they go out and work for their living again? Yes; I do not know any more about that than anyone else, but it occurs to me as a point for consideration.

39. So that a very large proportion of these cases could be treated in a poor-house hospital, which means a very considerable diminution of expense? I do not know that more than one-third of the people could on the whole. It depends upon the amount of illness. At any rate the poor-house hospital would have to be under the care of a medical man, and under the charge of trained nurses.

40. Yes, I am supposing that the poor-house hospital is properly managed? If they really require hospital treatment they surely need more and other food than is provided in an asylum.

J. A.  
Thompson,  
M.D.

17 April, 1899.

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M.D.  
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41. I gather from what you have already said that your view is that this would not make a good infectious diseases hospital, but that it might be used for a general hospital or a poor-house hospital, and might be useful for that purpose for some time to come if the buildings will stand? Yes; I do not see any reason why it should not be put to that use so long as acute cases are not admitted.
42. Will you give us briefly your views as to the site, the size, and the management of an infectious diseases hospital, where it ought to be, and how many patients you would admit, and under what department it could be managed? Since the infectious diseases hospital must be near the people to be served, you would require one for North Shore, and one for the rest of Sydney. As to this part of Sydney, if the hospital is to be on Crown land, I do not think there is very much choice as to the site. Leaving the Coast Hospital out of account, there are only two possible pieces of land—of which one is and one may become—available; the latter near the old rifle butts at Park Road, and the former a little way beyond Kensington Racecourse. Although that is not quite as central as one would like to see it, I think it is a suitable place. I think it is convenient enough to be accepted, considering that it is the only piece of Crown land actually available. As to its size, I do not think the hospital should begin by being very large. It is a means for the prevention of disease, and you cannot oblige people to take advantage of it. They will have to be educated into its uses; therefore, I suppose that about seventy beds would do to begin with. Perhaps it would never reach more than 200. As to its management, such a hospital ought to be under municipal control; but I think that is out of the question as we are constituted at present. Municipalities should control infectious disease hospitals. Municipal authorities get the first information, they know something about the people, and they can bring that pressure to bear without which the hospital would not be fully used. That cannot be at present, however; therefore, I do not see anything for it but for the hospital to be under the control of the Public Health Department. This detail of management requires a careful discussion. The point is that it ought to be a municipal institution. It cannot be, however, because municipalities have no power to combine to manage it.
43. If it is necessary to receive into the infectious diseases hospital people in fair circumstances—people other than paupers—would it be necessary to have more classification in that hospital than you would have if it was intended for paupers only? Yes; perhaps to some extent. Yet people who live in houses of reasonable size can manage to isolate their patients.
44. There are many respectable people whose houses are small and full of children, and it might be desirable for them to send one member of the family to an infectious diseases hospital, and they would not like to place that person amongst paupers or amongst people taken from the lower classes? I do not think that the word "pauper" should ever be mentioned in connection with such a hospital. I think it is an institution of which everybody who has not the proper means of isolation should take advantage; but you know the difficulties there are in refined classification. As soon as you go beyond a certain elementary division you double the size of your hospital.
45. It is desirable to take patients from all the different strata of society, and that means having a large hospital where a small one would otherwise do? It is a matter of opinion to what extent it would increase the size of the hospital; but if it increase it much it becomes an impracticable scheme, not only here but everywhere else.
46. *Mr. Barling.* Can you tell us what is the average number of patients per nurse and wardman at the Coast Hospital? I have the figures in my office.
47. Can you let us know how it compares with the Sydney and Prince Alfred Hospitals? Yes.
48. Are any contributions received at the Coast Hospital from relations of the patients? Yes; something is received, but it is a very small sum—so small that the Chief Secretary long ago gave authority to put it aside to form a fund from which destitute persons might get some gratuity on leaving the hospital if they were deserving.
49. Have you any idea what amount was received last year? £200 or £300.
50. Can you tell us whether any steps are taken to ascertain the competence of patients or their relatives to pay any portion of the cost of their treatment and maintenance? No steps are taken at all.
51. Do you think it would be desirable to have steps taken? Yes, highly desirable.
52. Do you think that diphtheria cases ought to be taken in? Yes; I think that patients suffering from infectious diseases ought to be admitted without question of ability to pay for the sake of isolation.
53. For the safety of the community? Yes.
54. With regard to other cases, you say that no steps have been taken to find out whether they can pay, and that, in your opinion, some steps should be taken with the view of compelling payment where they can pay? Yes. When I say that no steps are taken I mean that inquiries are made *visa voce* by Dr. Paton and by the clerk, but the answers given have to be accepted for what they are worth.
55. You think that sufficient care is not taken at present to ascertain that fact? Certainly. If the Coast Hospital is for paupers, then there should be a staff of visitors to find out who the applicants are.
56. You were speaking of an item that considerably swelled the cost of maintenance, viz., the large quantity of fish consumed;—do you consider that more fish is consumed at the hospital than should be? No; I think the excessive cost is due to the contract price.
57. Do they put down their own price? Yes.
58. One and fourpence a lb. is an excessive price for fish? Evidently.
59. Then the fault would lie with the system of tendering? Yes.
60. There ought to have been a line for preserved fish and another for fresh fish? Yes; but the contractor would tender at the price he thought fit.
61. What I mean is that the fault lies in the conditions of the contract? Probably.
62. You pointed out that fish was 1s. 4d. a lb. without pointing out whether it was fresh or preserved? It was fresh fish.
63. Then it comes to this, that a better arrangement with regard to contracts would do away with that difficulty? I think so.
64. What provisions are generally made in the city and suburbs for the treatment of infectious cases? There is no provision except that which is made at the Coast Hospital; but all the hospitals occasionally admit cases of infectious disease inadvertently.
65. They take in diphtheria patients at the Children's Hospital? Yes. They have a diphtheria ward containing twelve beds, and the Coast Hospital enables that place to deal with a larger number of patients than they otherwise could by receiving convalescents before they are fit to go home.



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66. As a matter of fact, the Coast Hospital is only a hospital for the treatment of cases of infectious diseases from the city and suburbs? It is the only hospital where infectious cases are regularly received.
67. Do you think at present there is a sufficient number of nurses employed for the work of the hospital? Yes.
68. You do not know enough about the Prince Alfred Hospital and the Sydney Hospital to say whether such is the case there? I do not know anything about those hospitals, except that I have inquired.
69. With regard to the Coast Hospital, there are sufficient nurses and wardmen to compass the work? Yes.
70. *Mr. Walker.*] You said that you issued orders yourself, sometimes Dr. Paton, and sometimes Dr. Taylor, or the clerk? Yes; the clerk questions the patients before they go to the doctor.
71. Who is responsible for admitting people to the hospital? I am officially responsible.
72. Then I understand that you depute your authority to those three persons? They do the work. I never interfere with them. It is impossible that I should.
73. I want to know who is responsible for the admission of patients? Dr. Paton is.
74. He admits the patients in reality? Yes.
75. And the others are under his instructions? Yes. He is chief of that branch, and will tell you more than I can tell you about the practical details.
76. *Dr. Manning.*] Turning now to the metropolitan hospitals, which consist of the Sydney, the Prince Alfred, the St. Vincent, and the Children's Hospitals, can you tell us whether these are sufficient for the needs of the population, or is the hospital accommodation for the metropolis below its requirements? I can only judge so far as there is pressure on the Coast Hospital, and my belief is that the hospital accommodation is well taken up at present. If it is not actually deficient, it is fully occupied.
77. So that it is rather below than above what is required? Yes; that is my belief.
78. Such being the case, what would you consider the best mode of meeting the want? That is a very difficult question. The plan that I have always had in my own mind was that of building an infirmary like a Poor Law Infirmary in England, and that the Coast Hospital should be combined with it. It would be filled largely with the more serious cases of chronic sickness in the asylums, and by such acute cases as are now represented by the acute cases which are taken into the Coast Hospital—if such a place were established within reasonable reach of Sydney. One must never forget that a hospital in the existing isolated situation is not equivalent to a hospital in the city. Then I believe that a large proportion of the cases now admitted to the Sydney and Prince Alfred Hospitals, and paid for by the Government, would be treated there. I think there would be economy in that plan, notwithstanding the primary expenditure on buildings. It is a subject about which a great deal might be said, but that has always been my idea. The infectious hospital would work in much better with such an institution as I have just mentioned than if it stood by itself, because the number of patients in it will fluctuate immensely; therefore its staff needs will fluctuate; so that it can be much better worked in conjunction with some general hospital.
79. You said in connection with the Coast Hospital, but you did not mean by that on the site of the Coast Hospital? Not at all.
80. Then you do not think any enlargement of the Sydney or of the Prince Alfred Hospital is at present required? I do not know that there is any present need for enlarging those hospitals. I only judge that they are about full. They are not overcrowded, but you could either enlarge them or diminish the number of patients in them by transfer to the Infirmary. The total number of patients in Sydney Hospital in 1898, the beds being 279, was 3,618, and out of that number 1,557 were Government patients; so that there were 2,061 who were not Government patients; and for the 1,557 Government patients, the Government paid very nearly £9,000 in addition to the £4,000 subsidy which the hospital annually has. The number of beds in Prince Alfred Hospital is 236; the total admissions to the hospital were 3,706; the Government patients numbered 1,359, those not being Government patients numbering 1,347, and the amount paid was £5,700—here again, in addition to the annual subsidy of £4,000. So in the case of Prince Alfred Hospital, the patients dealt with by the hospital as a public hospital, and dealt with by the hospital as a Government institution, were about equal—1,347 and 1,359.
81. Do you think it will be cheaper for the Government to put up a hospital for themselves, and run it themselves, than to pay these other institutions for receiving their cases? I think, when you come to go into details and the figures, you will very likely find that to be the case.
82. Speaking of these metropolitan hospitals, do you think there is much abuse of them by the reception of persons who are not fit subjects for a hospital? I have very often heard that that is so, but I really know nothing about it.
83. You know nothing of any system adopted to detect this abuse? No.
84. Have you formed any idea of what should be the sums fixed for payment; should these sums go beyond a certain amount, or should the hospital receive from patients anything beyond a medium sum—say 10s. or 12s. a week;—should they take sums which would really recoup the hospitals for all their expenses? No; except with regard to certain cases. I suppose there are some surgical cases which, if treated privately, would require a considerable sum of money for the operation itself, which would be beyond the means of many persons who could pay a moderate sum a week for medical attendance in hospital.
85. So that, generally, you think that a medium sum should be fixed, and that they should not take in patients who are able to pay full rates of maintenance? Yes.
86. Has the large number of out-patients engaged your attention; I see that in the metropolitan hospitals during last year there were upwards of 55,000 people in addition to the number that were treated at the Coast Hospital and at Balmain and one or two other places; so you see there were nearly 60,000 people who went and received treatment from the hospitals as out-patients;—do you not think that a very large proportion out of the Sydney population? It is a very large proportion—one-seventh.
87. Do you think it is a larger proportion than it should be? I think it must be. I do not know that I have anything definite to go upon, but I think it is an immense proportion. I should think it might be kept down by a system of inquiry officers.
88. You know the present mode of subsidising the hospitals at £ per £, and that the Government pays for patients in the metropolitan hospitals but does not pay for patients, admitted under Government orders, in country hospitals;—have you any alteration to suggest? No; I have thought about that.

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The number of persons admitted to country hospitals on order of the Police or of Government Medical Officers is so small, and they stay such a very short time, that I think the care of them is a fair charge on the subsidy.

89. Then you do not think that the country hospitals ought to receive payment for cases that receive Government orders? No; I do not.

90. The mere number is not here in question;—why should the Sydney hospitals get both subsidies and payment for their patients? I do not know, except that the Government have not a sufficient number of hospital beds at command to put destitute people in.

91. Neither have they in the country? No; but you have to consider that in Sydney it is possible to oversee the patients. It is not fully done, but it is done to a very large extent. It is part of Dr. Paton's duty to examine every patient whose stay has extended over twenty-eight days. He has to see whether they are properly retained for any longer time. We are under the impression that those hospitals are not anxious to get rid of Government patients. I think that the 3s. a day pays in some form—not directly but possibly in keeping a necessarily large staff going.

92. Then, if they are thoroughly paid they ought not to receive a subsidy of £ per £ as well? That is true. I think it would be very much better if the Government had a sufficient number of beds to take in all who were entitled to gratuitous treatment. In the country no supervision would be possible, and I think the Government would find practically they were paying the £ per £ subsidy and all the expenses. No supervision could be kept over them. I do not think that the patients in respect of whom the special payment would be claimed would always perhaps be quite fair subjects of it. Some check can be kept over such patients in the Sydney hospitals, although they are not supervised and checked as systematically as should be.

93. Now that private hospitals have been established in Sydney, do you think there is any necessity for paying wards in connection with public hospitals? No; if there is security that there always will be private hospitals in sufficient number.

94. *Mr. Barling.*] Has it ever come under your notice that there has been any abuse of the conditions under which subsidies are given to these hospitals? Are you speaking of metropolitan or country hospitals?

95. We will take the metropolitan hospitals? The Government do not pay £ per £ to the Sydney and Prince Alfred Hospitals; they get a fixed subsidy of £4,000.

96. Speaking now of the subject which Dr. Manning examined you upon with regard to paying patients, would it not be a serious inconvenience to a great many patients and persons of the middle class if the paying wards were abolished in the hospitals? I think that if a person can afford to pay his way entirely in a public hospital as a paying patient in a private ward, then the public hospital is exceeding its proper scope and its charitable design; such a person should be rather invited to enter a private hospital.

97. That is, if they are able to pay the whole of the cost? Yes.

98. But would not the whole of the cost in the hospital be very much smaller than the charge of a private medical practitioner? No. Some time ago a jeweller came down from Queensland and was taken into one of these two hospitals as a private patient, and he paid eight guineas a week.

99. Would the charge be less or more in a private hospital? I do not know whether it would be less; certainly it would not be any more. I should rather think that it would be less.

100. Did that eight guineas a week represent the actual cost to the hospital? I do not think so.

101. Would not patients, even if they paid the actual cost to the hospital, pay considerably less than they would have to pay at a private hospital? I cannot tell.

102. If it is so, it would be a great boon to the clerical and other classes, and those who are earning £2 to £6 a week? I do not know what the charges are in private hospitals, or what the charges are for private wards in public hospitals. All I say is, that if a person can afford to pay for a private ward in a public hospital, there is no doubt that he can pay for a private ward in a private hospital, and he ought to do so. The public hospitals should not interfere with the business carried on by those who own private hospitals.

103. *Mr. Walker.*] Are patients ever refused admission on Government orders to the Sydney Hospital simply for the want of means? No, never; but they are very often admitted, and an order is required after their admission, which is quite irregular.

104. If a person is admitted to the hospital, and afterwards it is found that he has means, is he compelled to pay before he leaves? I think that patients are pressed to pay if it is found out, but I do not know that any legal proceedings have ever been taken to recover.

105. How many patients are admitted to the Sydney Hospital on Government orders? In 1898 the number admitted to the Sydney Hospital was 1,557; to the Prince Alfred Hospital, 1,359. In the case of the Sydney Hospital, that number was nearly half of the total admissions, and it was just half in the case of the Prince Alfred Hospital.

106. Are not orders for admission issued by Dr. Paton and Mr. Simms? Dr. Paton gives orders to all those persons who can come to the hospital admission depôt, or who send their friends to apply to him. Mr. Simms issues orders to those people who apply to him direct. These applications emanate from medical men attending destitute persons in their neighbourhoods.

107. And you are aware, of course, that orders are given by me on behalf of the Colonial Secretary? Yes.

108. You say that there is £4,000 voted annually to the hospitals? Each of these hospitals gets £4,000, and in addition payment for the patients we have just mentioned. The Sydney Hospital got altogether £12,916; Prince Alfred Hospital got £9,790. Those are the totals for 1898.

109. *Dr. Manning.*] Do you know the capacity of the Carrington and Walker hospitals? The Carrington Hospital, 100 beds; the Thomas Walker Hospital, 76 beds. The Thomas Walker Hospital takes no Government patients. The Carrington Hospital had 1,082 in 1898, of whom one-third were Government patients, for whom they received as payment £1,006.

110. Then, with 176 beds, to what extent do these hospitals relieve the Metropolitan Hospitals? I have no means of answering that question.

111. You are aware that they take a majority of their patients from the Metropolitan Hospitals, and that they also take in a certain number of convalescents who have been treated in private homes; but you are not aware of the proportion of those? I have no information on the subject.

112. But considering that they have 176 beds between them, one may take it, I suppose, that they relieve the metropolitan hospitals to the extent of nearly 100 beds? I can only tell you that the Government gave 315 beds to people during 1898, and they were all at the Carrington Hospital.

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113. Presuming that they have 100 beds at these hospitals at the disposal of patients from the Metropolitan Hospitals, that would really increase the hospital accommodation of Sydney by 100 beds? It would increase it by 100 beds for the time that those patients would have stayed in the hospital if there had not been a convalescent hospital to transfer them to.

114. Do you think that the suburban hospitals are doing all that they might do to relieve the pressure on the Metropolitan Hospitals? They are very small places. If they were kept full they would not appreciably relieve a hospital of 250 beds.

115. Have you had complaints that they do not take in cases that they might take? Not for some years. There was a time when the North Shore Hospital declined every now and then to take in cases of typhoid fever, on the plea that they had not a sufficiently large staff. I daresay that that was true; and if one says that they ought to have a sufficient staff, the reply would be, "Then you ought to find the money." They did what they could.

116. There have been no complaints of this kind of late years? I think not.

117. What do you think of the advisability of having so many small local hospitals, as regards the cost, and from other points of view? Their cost, I think, must be excessive unless they are kept full. It is a very difficult question. If a man breaks his leg at Burwood it is a long way to carry him to the Prince Alfred or to the Sydney Hospital. It is reasonable that there should be some small place to which he could be taken.

118. You think that the advantages of early treatment, and possibly more rapid recovery, compensate for the increased rates of maintenance to some extent? I think it may be so. I must put myself right with the Commission by saying that my Department has never had control of the hospitals. I do not know that it is desirable that it should have. These points do not come under my notice, and I have not the facts, on which many of those questions could be answered.

119. Has the matter of maternity hospitals engaged your attention at all? Yes; in relation to the inadequacy and impropriety of the Benevolent Asylum as it stands at present; nothing further than that.

120. Under whose control are the country hospitals? They are under the control of the Chief Secretary. Perhaps it would best put the Committee in possession of the facts if I gave what I have noted on that subject. In the first place, as to the establishment of country hospitals, that is always by local initiative; there is never any controlling inquiry as to the need for one. The inhabitants usually collect some money; a site is very often given by a resident, or granted by the Government. Having got together a reasonable sum, they apply to the Government and get the usual £ for £ subsidy. That is very rarely enough to enable them to do more than begin building, and they then apply to the Chief Secretary for a special grant, which is usually given. Then the committee engage an architect and choose a plan. The plans are forwarded for approval to the Chief Secretary, by whom they are usually transmitted to the Health Department, where they are examined as to the arrangements and general suitability and sufficiency. As a rule, I have supervised these plans myself, and made notes on them, saying, "This is wrong," and "This must be altered," and so forth, and sent them back to the Chief Secretary; but nobody has any hold over the country hospitals except the Chief Secretary, and his hold depends, not on any matter of law, but entirely on his control of the purse. The consequence is that the alterations indicated are not always made. I have found that out by visiting the hospitals perhaps two or three years after they have been built. There is no arrangement for insisting on these alterations being made; there is no control and no check. When they have got their buildings up they get gifts of furniture and instruments, and if they are lucky that takes the form of a special grant by the Chief Secretary. Sometimes wealthy residents give them instruments. These subsidies and special grants are not regulated by law, but are given at discretion of the Chief Secretary and they constitute the sole hold which any body has over the building of the hospital or its subsequent management. Then as to the constitution—and this is regulated by law: The subscribers hold a general meeting, they elect a committee, and the committee appoints its officers. The only hold over the officers consists in a regulation which was made by the Chief Secretary, as the result of an inquiry into the management of a country hospital, which was that there should be on the resident staff at least one person who is a trained nurse. That regulation has been attended to ever since it was made, which I think was four years ago. Otherwise they are perfectly free to appoint their own staff. At the end of 1895 I drafted a series of model rules for adoption by the hospital committees in regard to their organisation, but that again was quite a voluntary thing. It was done merely because it appeared to be desirable. Then the committees are required to keep certain records, namely, a cash-book, a register of admissions, discharges, and deaths, of provisions, and of subscribers. Down to 1895 forms for these purposes used to be furnished by the Government, but at that date I understand the printed stock ran out, and the committees were required to furnish themselves with suitable books. There is no regular examination of those books or accounts, but they contain particulars which have to be furnished when they are applying for their annual £ for £ subsidy. Then, as to the subsidy, that is paid by the Chief Secretary as a matter of course on application, but subject to the furnishing of the statistics of the hospital for the past year. I gather those statistics. By an arrangement, made I think in Dr. Manning's time, the subsidy is refused by the Chief Secretary if those statistics have not been furnished, but no controlling use is made of the statistics after they have been got. Dr. Manning moved the Chief Secretary to require that every country hospital should have accommodation for at least two cases of infectious disease, and should also require them to admit cases of infectious disease to the extent of their accommodation, a thing which they had always refused to do under their own rules. It was, at the same time I think, required that they must admit destitute cases presented by the police. That admission of destitute cases is intended only to avoid the necessity for sending really destitute people to gaol for shelter and protection; and if the secretary to the hospital looks after the business, they need, I think, very rarely indeed keep such a person a week. They can always transfer such persons to an asylum, which is their ultimate destination. Then as to examination of accounts, statistics, and so forth, there was an Inspector of Charities, whose duty it was to go round and inspect their accounts, and see what they were doing with their money, and I have no doubt that he was a very useful officer. However, he ceased in 1887, and he has never been replaced. I may mention that there are at present 100 country hospitals—that number does not include the suburban hospitals—and out of these, in eighty-six cases the medical officer is paid. In the vast majority of those cases the payment is really an honorarium, and runs from £12 a year upwards. I do not think it exceeds £50 in any case, except in the cases of Broken Hill and Albury. I think that the resident medical officer at the former place gets £100 a year.

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In some very remote places the medical officer is subsidised by the inhabitants as medical officer to the hospital, and that really is intended to induce him to settle there; in those few cases his salary is much above £50 of course, but takes the form of a guarantee by the wealthier residents.

121. *Mr. Barling.*] At Broken Hill I think the miners subscribe a certain sum and the same with regard to the mine-owners? Yes.

122. *Mr. Walker.*] Are you not aware that the duties of the Inspector of Charities applied to the whole of the institutions receiving aid from the Government? No.

123. You have not mentioned the Sydney hospitals, but the inspection applied to them as well as to all the Schools of Arts and other institutions receiving aid from the Government? I say that the inspection of hospital accounts ceased in 1887.

124. *Dr. Manning.*] You have visited a great many of these hospitals during the last fifteen years or so? Yes; I must have seen most of them at some time or other.

125. Are they generally well-conducted? I think so.

126. Can you point out any that you consider are not well-conducted, or that were not when you saw them last? The only one that I have had anything to say about is Cooma Hospital.

127. A good deal of interest is taken in them by the inhabitants of the place, and they are generally well-conducted? Yes.

128. As to the character of the buildings, do you consider that they are too expensive? No.

129. But they are much more expensive than the Kiama Hospital, of which you drew the plans—are they? I do not think anybody would build in iron if he could afford brick.

130. So you think that the cost of the buildings as a whole has not been too heavy in country hospitals? As far as I know, I do not think they have been; but I do not think I ought to answer the question in that way. What I mean is that the buildings in structure and size are not extravagantly designed; but what their actual cost is, and how that compares with the market rate at the time they were built, I do not know.

131. Have the by-laws that you drew up been generally adopted? No; they have been adopted by some seven or eight Committees; but in two or three of these cases, they have altered them or taken what they thought they would like, and left the rest. They have no authority; it was merely a suggestion.

132. But you think it is advisable that they should be adopted? I think so; but they have not been discussed.

133. Do you think all these hospitals are necessary? Yes; I do not know how we could get on without them. I do not know of two such hospitals so near to each other that they interfere with each other's work. That is a solitary case which you mentioned the other day—Silverton; but Silverton Hospital was necessary for a long time. It is only the decline of that town which has made it superfluous.

134. You know of no other cases in which the hospital is no longer necessary? No; and in many cases patients still have to take very long journeys.

135. Do you think that there is a necessity for the inspection of these hospitals? I think that must be so; but I could not give specific grounds.

136. You think it is necessary in the first place to see that their funds are properly disposed of, and that their management is satisfactory according to modern methods? Yes; I do not think that this hospital business will ever be satisfactorily managed until each hospital is supported by the inhabitants of the district which it serves, by the payment of a tax. It will not be satisfactory until it is made part of a system of local Government.

137. *Mr. Barling.*] Has any abuse of the conditions under which subsidies are given come under your notice? Well, I have not anything to do with it.

138. No, but has it ever come under your notice in your inquiries in connection with hospitals? I do not quite know what you mean.

139. They get £ per £ from the Government;—have they, in making up their balance-sheets, included items on which they have got £ per £, which they should not have included? Yes; but that is not first-hand knowledge. I have heard of a case, for instance, but I do not know anything about it myself, where they said they would give their doctor £100 a year, but it was understood that the doctor was to subscribe £50 a year to the hospital. Then they got £ per £ on that £50. I think something like that has happened very often.

140. That would indicate that a more careful scrutiny of the accounts of these various institutions is necessary? It would.

141. What remedy would you propose to prevent imposition of that kind? I think the functions performed by the Inspector of Charities were likely to check that sort of thing.

142. You think an officer ought to have power to inspect the accounts? He had power to examine all the books, and to take evidence, I think.

143. You say there is sufficient power if it were exercised? He had the necessary power, and I think that if he performed his functions regularly it would make it difficult for that sort of cheating to go on. I think there has been similar cheating in somewhat different ways.

144. *Mr. Walker.*] Do you not think that certain of these hospital establishments are too large for the requirements of the town? Well, there is the Broken Hill Hospital; they had to shut up one wing because they could not keep it going. I do not know of any other case. They are usually such small places that they are like private houses.

145. Would it not be advisable to have a stereotyped plan for hospitals—a plan that they might follow in accordance with their requirements? If there were means of making them adopt it it might be useful.

146. Do you not think they would adopt it if such a plan were prepared? I do not think they would unless the Government would also build. When they go to their architect he will not adopt somebody else's plan; besides everybody likes to have something different from his neighbour's. It is only a portion of the money that the Government give; the rest is subscribed by the people in the neighbourhood, and I suppose they would expect to have some voice in the spending of it.

147. Do you know how patients are admitted into the country hospitals? They are almost always admitted on the order of a subscriber. They have first to go to the subscriber, who gives an order, then they have to take that order to the Medical Officer, and if the Medical Officer thinks the case a suitable one for admission, he endorses it.

148. And the same system applies as in Sydney; if a patient can pay he is made to pay? Yes.

149. And have not the Government the right to admit any patient through the Police Magistrate? Yes; persons who come under cognisance of the police.

150. Could not some of the hospitals be dispensed with in towns in close proximity to one another; would it not be better to have one hospital to serve the whole district, instead of several? It would be better.

151. Do you not think it would be better to establish hospitals in big centres, where a good hospital might be established, and do away with the aid given to some of the others? Yes; where it could be done that would be a very good plan.

152. More especially along the railway-lines, where you could easily convey the patients? Yes; perhaps you would be able to do it only on the railway-lines.

153. For instance, at big centres like Bathurst, Goulburn, and Tamworth, you would concentrate the hospital accommodation for those districts without giving subsidies to ten or twelve different hospitals, and the patients would get better treatment? Yes; but you can go from Tamworth to Warialda, and from Warialda to Inverell, without coming across a hospital. Those are long distances, and there is no railway.

154. *Mr. Powell.*] You recommend generally local control and local rating? Yes.

155. *Dr. Manning.*] Have you any knowledge as to what is the number of private hospitals in Sydney? No.

156. Do you think it is necessary that these private hospitals, of which I may say there are a great many, should be inspected? It is done by some boards of health, but not in Australia. In many American towns private hospitals have to be licensed. I should think that probably it would be a good thing, but they are all conducted by respectable recognised medical practitioners, who are quite aware of their interests in having the place properly constructed. I suppose you did not think of any continuous inspection.

157. I was not thinking of inspection before licensing, I was thinking of periodical inspection? With what object?

158. I can conceive that a hospital might be established by people ignorant of what a hospital should be, and also with a view of gain, and I can conceive it necessary that these places should be inspected in the interests of the public;—is it your view that it would be well, at all events, to inspect them before they are licensed? I think that that might be a wise precaution, and also there might be an inspection to see that they are kept in repair. When I asked whether you contemplated continuous inspection I meant as to details of management and inspection of the method of conducting the business.

159. I gather that you think that a number of these hospitals in the country were established so that the inhabitants generally might get the services of a doctor fairly cheaply? Yes; I do not think there are a great many of these cases. Hillston is one, I believe.

160. The argument is something like this: "Where a doctor can be found to settle you had better have a cottage hospital so that we may get his services cheap, and where one cannot make a living, also found a hospital, and pay him out of the subsidy, and then we shall get his services cheap?" Yes, that may be so, but perhaps you would not get a doctor at all in those places unless such expedients were resorted to.

161. They would have to send a greater distance to a doctor and pay him more? Yes; if they could afford it.

162. *President.*] In many cases, I presume, that would be a very proper arrangement which *Dr. Manning* mentioned? Yes; I have thought that although irregular it may be as good a way as any other in the present state of the country for the Government to provide for poor people in that respect.

163. In some cases it is almost the only way in which it could be done practically? Yes; I think it is.

FRIDAY, 21 APRIL, 1899.

[The Commission met at the Offices of the Public Service Board at 2 p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).	
F. N. MANNING, Esq., M.D.	J. BARLING, Esq., J.P.
J. POWELL, Esq., J.P.	CRITCHETT WALKER, Esq., C.M.G.

William H. P. Cherry sworn and examined:—

164. *President.*] *What is your position?*

I am Chief Compiler in the Government Statistician's Office.

165. *Mr. Barling.*] *I asked the Government Statistician to be good enough to arrange certain statistics in connection with the hospitals, and I think he has deputed you to come and give the information?*

Yes.

166. *What was the average residence of persons discharged from the hospital during 1897?*

In the subsidised hospitals it ranged from sixteen to twenty six days. Thus the average for Prince Alfred Hospital is twenty-six days; for Sydney Hospital twenty-four days; and for smaller hospitals from sixteen to twenty-one days. In the Government Hospital at Little Bay the patients remain longer, the average being thirty-two days. The same remark applies to the Walker Hospital, St. Vincent's, and the Lewisham Hospital, where the averages are thirty-one, thirty, and thirty-one respectively.

167. *You have distinguished between the hospitals that are not subsidised and those that are;—the Walker Hospital, St. Vincent's, and the Lewisham Hospital are not subsidised, I think?*

No; they are unsubsidised.

168.

- W. H. P. Cherry.  
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168. *Mr. Walker.] St. Vincent's is subsidised?*  
St. Vincent's was unsubsidised in the year 1897, for which I have given statistics, and has been so returned for the last five years.
169. *Mr. Barling.] Has there been any increase in the rate of admission?*  
Yes; taking the whole Colony, ten years prior to 1897, the rate of admission per thousand of the population was 14·65. For the year 1897 it was 21·09 per thousand. The increase of population during this period was 26 per cent., and the increase in the number of admissions to the hospitals was 82 per cent.
170. *What was the rate of admission per thousand of the population to the metropolitan hospitals?*  
In 1888 the rate was 25·9 per thousand, and in 1897 it was 34·9 per thousand. The increase of population in the metropolitan area during this period was 41 per cent., and the increased admissions to hospitals 67 per cent.
171. *Does not the increase of admissions, compared with the increase of population, seem very high?*  
Yes; but I would suggest that it can be largely explained by the fact of the increased facilities and accommodation. There is no doubt that formerly many persons were compelled to remain at home who, under present circumstances, would be received into hospitals. Ten years ago the number of hospitals in the Colony was only eighty-two—seventy-six in the country and six in the metropolis;—now there are 108 hospitals—ninety-five in the country and thirteen in the metropolis, besides which many have been enlarged.
172. *What was the number of beds in 1888, and what was the number in 1897?*  
1,920 and 3,018 respectively. In the year 1894 the nursing staff numbered a little over 400, but now the number is 600.
173. *What was the number of beds per 1,000 of population?*  
For the year 1897 the total number of beds, as before stated, was 3,018 for the whole Colony, or an average of 2·3 per 1,000 of the population (1,310,550). The number of beds in the hospitals of the metropolitan and suburban area was 1,232, or an average of 3 per 1,000 of the population (414,020).
174. *What is the present population of Sydney and suburbs?*  
On the 31st December, 1898, the estimated population of the city of Sydney was 98,250; of the suburbs, 328,700; total, 426,950.
175. *What was the total expenditure and the expenditure per head of the population for all the Government hospitals and the private hospitals for 1897?*  
That is, for Government hospitals, those subsidised by the Government, and the unsubsidised hospitals?
176. *Dr. Manning.] That does not include private hospitals, of which you can have no knowledge?*  
No.
177. *Mr. Barling.] What was the total expenditure and the expenditure per head of the population for all the Government hospitals and others, not private?*  
The total expenditure on all the hospitals, Government, subsidised, and unsubsidised, was £138,719, which is at the rate of 2s. per head of the population.
178. *What was the expenditure for the metropolitan area only?*  
For the metropolitan area only the total expenditure was £65,131, or 3s. 2d. per head of the population.
179. *And for the country only?*  
For the country only the expenditure was £73,588, or 1s. 8d. per head of the population.
180. *Dr. Manning.] Does the metropolitan area include the suburban hospitals?*  
Yes; it includes the Little Bay Hospital, the Balmain Cottage Hospital, Prince Alfred Hospital, Croydon Hospital, the Glebe Hospital for Sick Children, the St. George Cottage Hospital at Kogarah, the North Sydney Hospital, Sydney Hospital, and the Lewisham Hospital. The Walker Hospital is not included.
181. *Mr. Barling.] What was the revenue from all sources?*  
For the metropolitan hospitals it was £67,100, or 3s. 3d. per head; for the country hospitals, £71,427, or 1s. 7d. per head; making a total of £138,527, or 2s. 1d. per head of the population.
182. *What amount did the State contribute?*  
To the metropolitan hospitals the State's contribution was £41,985, or 2s. per head of the metropolitan population.
183. *How much to the country hospitals?*  
To the country hospitals, £31,233, or 8d. per head of the country population; and the total for the whole Colony is £73,218, or 1s. 1d. per head.
184. *Out of the total of £138,527 of revenue, what was contributed by the patients?*  
In the metropolitan hospitals, £8,623; in the country hospitals, £6,057; or a total of £14,680, being a little over 10 per cent.
185. *According to the hospital accounts, what is the average annual Government expenditure on the metropolitan hospitals?*  
The average for the past five years was £37,569 per annum.
186. *And in the country?*  
In the country the average for the last five years was £33,838 per annum.
187. *And for the whole Colony?*  
For the whole Colony the average for the last five years was £71,407.
188. *What was the number of indoor patients for 1897, and the total cost of their maintenance and treatment?*  
In the metropolitan hospitals the number of patients was 14,447, and in the country 13,196, or a total of 27,643. The cost per patient in the metropolitan hospitals was £3 18s.; and in the country, £4 19s.; or £4 8s. for the hospitals of the whole Colony.

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189. *What was the number of outdoor patients?*

That is rather difficult to answer. We cannot get the exact number. At the Sydney Hospital they give the attendances. The number of attendances at that institution is given as 85,350, but what number of individuals that represents we cannot say. I have arrived at an estimate in this way: Eliminating the Sydney Hospital, in all the other metropolitan hospitals the number is 22,510. The number which we get for the country is 7,732. I have added on to that an estimate of 20,000 for the Sydney Hospital. I find that in the Prince Alfred Hospital the number is 12,000, and I think it is considerably more in the Sydney Hospital, so I have made the estimate 20,000, which brings up the total number of outdoor patients to 50,242.

190. *What is the number of indoor patients in the Little Bay Hospital, the cost of maintenance and treatment of the patients, and the total expenditure?*

During 1897 the patients admitted numbered 2,506; the total cost of their maintenance and treatment was £10,869, or £4 7s. per patient; the total expenditure of the institution was £12,816.

191. *Excluding the Little Bay Hospital, what is the amount contributed by the Government to hospitals during the last five years, and the annual average?*

During 1893, £54,904; during 1894, £59,116; during 1895, £59,930; during 1896, £63,685; and during 1897, £60,402; annual average, £59,607.

192. *Are there any hospitals where no contributions are made by patients?*

Yes; the Little Bay Hospital and the Thomas Walker Hospital in the metropolitan area; also the Kogarah Hospital in the metropolitan district. In the following country hospitals patients contributed nothing during 1897:—Albury, Goodooga, Murrurundi, Scone, Tibooburra, and St. Joseph's, Auburn. That is absolutely correct as regards the Little Bay and Thomas Walker Hospitals, but whether it is quite correct as regards the Kogarah and the six country hospitals mentioned, I am not prepared to say. According to the returns furnished to us, the patients have contributed nothing.

193. *What is the total number of beds in the Sydney Hospital?*

The return for 1897 gave the total number as 322.

194. *And the number of indoor patients?*

4,090.

195. *What was the revenue of the Sydney Hospital, and from what sources?*

During the year 1897, Government contributions, £15,262; subscriptions and donations, £3,518; contributions by patients, £2,332; interest on invested funds, £1,254; other sources, £152; total revenue, £22,518.

196. *And the expenditure during 1897?*

Salaries, £7,141; maintenance, £9,845; buildings and repairs, £1,575; miscellaneous, £2,843; total expenditure, £21,404.

197. *Can you give the total cost of maintenance and treatment of indoor patients for this hospital?*

Yes; for 1897 it was £17,826, or £4 7s. per patient.

198. *Has there been any increase in the number of applicants for orders for Government hospitals and asylums during the five years ended 1897?*

Yes. In 1893 the number of applicants for Government orders was 8,813; in 1894, the number was 9,134; in 1895, the number was 9,747; in 1896, the number was 12,251; in 1897, the number was 11,503. There was, therefore, a decrease in the last year (1897), but an increase in all the other years.

199. *What were the increases?*

In the year 1894 the increase was 321; in 1895 the increase was 613; in the year 1896 the increase was 2,504; then in 1897 there was a decrease of 748.

200. *Now give us the total increases?*

In the year 1894 the total increase was 321; in 1895 the total increase for the two years was 934; in 1896 the total increase—that is, for the three years—was 3,438; and in 1897 it had dropped down to 2,690. That represents the total increase in the quinquennial period. The number of orders for the Asylums for Infirm and Destitute increased from 2,116 in 1893 to 3,091 in 1897, or about 50 per cent. There is a decrease in the case of one institution, Little Bay Hospital, from 2,197 in 1893 to 1,872 in 1897, or over 16 per cent. The orders for outdoor hospital treatment have risen from 1,930 to 3,300 in five years, or 71 per cent.

201. *How were the orders distributed in 1893 and 1897, and what was the increase per cent.?*

The orders distributed in 1893 were as follows:—Outdoor, 1,931; indoor, 6,412. Orders for appliances—that is, trusses, spectacles, &c.—96; the number of orders refused, 374. That makes the total of 8,813 for the year 1893. In the year 1897 the distribution of orders was:—Outdoor, 3,302; indoor, 7,615; appliances, 224; orders refused, 362; or a total of 11,503. The increase in outdoor orders between 1893 and 1897 was 70 per cent.; in indoor orders, 20 per cent. The increased number of applications for appliances was 143 per cent.; in the number of orders refused no increase at all. It is practically the same.

202. *What is the total increase per cent.?*

It is 80 per cent.

203. *You have given the increases per cent. in the applications for Government orders to hospitals and asylums; what is the increase per cent. of population during the same period?*

The increase in population is only 8½ per cent.

204. *So, whilst the population increased only 8½ per cent., we had increases of 70 per cent., 20 per cent., and 143 per cent., on account of outdoor and indoor treatment and for appliances respectively?*

Yes; and of total applications, 30 per cent.

- W. H. P. Cherry.  
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205. *Of the 11,503 applicants during 1897, how are they proportioned according to birthplaces, and also as compared with five years ago?*  
In the year 1893 the proportion of New South Wales natives in the total orders was 29·62; of other Australian natives, 7·08—that includes New Zealand; natives of the United Kingdom, 53·22; and for all other places the proportion was 10·08 per cent. In 1897 the New South Wales natives numbered 35·2 per cent.; the natives of other Australian Colonies, 7·4 per cent.; the natives of the United Kingdom, 48·7 per cent.; and the natives of other places, 8·7 per cent. As regards applicants born in New South Wales, there is an increase of 5·6 per cent. from the year 1893 to 1897.
206. *President.] You would expect an increase?*  
Yes; that is about the natural increase.
207. *Mr. Barling.] The other Australian Colonies remain in about the same proportion—it was 7·08 in 1893, and it is still 7·4 in 1897; but there is a decrease in the cases of natives of the United Kingdom?*  
Yes; of 4·5, which also you would naturally look for, and there is a slight decrease in regard to natives of “all other” places.
208. *Taking the period of residence in New South Wales, what is the number of applicants resident in the Colony from 1 to 12 months, from 1 year to 10 years, and over 10 years?*  
Resident from 1 to 12 months, 501; from 1 year to 10 years, 1,574; over 10 years, 5,375; or a total of 7,450 not born in New South Wales. Applicants born in New South Wales numbered 4,053.
209. *What is the proportion of—(1) natives of New South Wales, (2) natives of the other Australasian Colonies, (3) natives of the United Kingdom, and (4) natives of other places, to the entire population of New South Wales?*  
According to the census taken eight years ago, the proportion of New South Wales born was 64·51; of other Australian-born population, 7·47; of those born in the United Kingdom, 23·67; and of all others, 4·35. I may say that the proportion of New South Wales born has certainly increased since then, and the proportion of those born in the United Kingdom will be less.  
Contrasting these proportions with the percentages of applicants according to birthplaces just given for 1897, it goes to show that the New South Wales orders would be double if they were in proportion to the population. The orders of other Australian-born are in exact proportion to their numbers in the population. The orders of applicants born in the United Kingdom are double in proportion to their numbers in our population, and so are the orders of applicants born in “all other” places.  
Or, putting it another way, in proportion to their respective numbers in our population, the “other Australasian” applicants are double those of New South Wales applicants, and the applicants born in the United Kingdom are four times those of New South Wales applicants. But it is only fair to point out that the disproportionate number of applicants who are from the United Kingdom or foreign countries is in a great measure due to the important fact that the portion of our population drawn from these countries consists mainly of adults, while in the native-born population there is, of course, a great preponderance of children.
210. *Taking the actual increase in the number of applicants during the period 1893–97, what is the rate of increase for natives of each of the Australian Colonies?*  
During the five years, 1893 to 1897, the increase in the actual number of applicants has been as follows:—Natives of New South Wales, 55·3 per cent.; natives of Victoria, 51·3 per cent.; natives of South Australia, 51·3 per cent.; natives of Queensland, 8·9 per cent.; natives of Tasmania, 24·2 per cent.; and natives of New Zealand, 35·2 per cent. Natives of Western Australia show an increase of 800 per cent.—that is, from 1 to 9 applicants. With regard to the United Kingdom, the applicants who are natives of England have, from the year 1893 to 1897, increased 19·9 per cent.; natives of Scotland, 39·5 per cent.; and of Ireland, 12·5 per cent.  
An examination of the figures for the three years from 1895 to 1897, however, shows different results.  
Taking this shorter period, the orders have increased from 3,082 to 4,053 in regard to natives of New South Wales—that is, 31·5 per cent. The orders given to Victorian natives have increased from 239 to 354, or 48·1 per cent.; the orders for Queensland natives have increased from 132 to 147, or 11·3 per cent.; the orders of South Australian natives have increased from 44 to 56—that is, 27·2 per cent.; the orders of West Australian natives have increased from 1 to 9—that is, 800 per cent.; the orders of Tasmanian natives have increased from 108 to 118, or 9·2 per cent.; the orders of New Zealand natives have increased from 141 to 165, or 17 per cent.
211. *Now, as regards the natives of the United Kingdom?*  
The orders of the natives of England and Wales have increased from 2,681 in 1895 to 2,909 in 1897, or 8·5 per cent.; the orders of the natives of Scotland have increased from 627 to 752, or 19·9 per cent.; the orders of natives of Ireland have increased from 1,766 to 1,940, or 9·8 per cent.
212. *Now, with regard to occupation, how are the applicants classified?*  
Labourers, shepherds, and shearers, about 26 per cent. of the whole; servants, including barmaids, 13 per cent.; children and persons of no occupation represent 11½ per cent.; married women and housekeepers, 10 per cent.; seamen and fishermen, over 5 per cent.; miners, nearly 3 per cent.; carters, 3 per cent.; the others are all small. The number of seamen and fishermen seems rather high.
213. *Compared with five years ago, is there much variation in regard to the occupations of applicants?*  
There is not much fluctuation in regard to applications; there is an increase of 1 per cent. in miners, and of nearly 3 per cent. of married women applicants. Servants and barmaids are less in number by nearly 2 per cent., and cooks, bakers, and stewards by 1 per cent.



214. *How do the proportions stand in regard to the ages of the applicants?*

Nineteen per cent. are over 60 years old; another 19 per cent. are between 30 and 40 years of age; 16 per cent. are from 40 to 50 years of age; 13 per cent. from 50 to 60 years of age, and 10 per cent. between 25 and 30; 8 per cent. between 20 and 25 years of age; 5 per cent. between 15 and 20 years of age; 4 per cent. between 10 and 15 years of age; 3 per cent. between 5 and 10 years of age; and those under 5 years are very close on 3 per cent. This is for the year 1897.

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215. *Mr. Powell.] Have you particulars as to the amount contributed by the public in subscriptions, donations, and bequests?*

Yes; I stated before that the total revenue of the hospitals is £138,527; of that amount the subscriptions and donations amount to £41,845. Of that total revenue of £138,527, the metropolitan share was £67,100, of which subscriptions and donations formed £12,759. For the country, the total revenue is £71,427, of which the contributions, subscriptions, and donations are £29,086. Perhaps it would be better to go more fully into the item of revenue, and to give this information under each heading. I will give the revenue from all sources. For the metropolitan area the Government contributions amount to £41,985; subscriptions and donations, £12,759; contributed by patients, £8,623; interest on invested funds, £2,479; other sources, £1,254, making a total of £67,100. The Government contributions to the country hospitals amount to £31,233. Subscriptions and donations, £29,086; contributions by patients, £6,057; interest on invested funds, £1,928; other sources, £3,123, making a total of £71,427. The totals for the whole Colony are:—Government contributions, £73,218; subscriptions and donations, £41,845; contributions by patients, £14,680; interest on invested funds, £4,407; other sources, £4,377, or a total of £138,527.

216. *Dr. Manning.] Can you give us any idea of what is included under the heading "other sources"?*

No, I cannot. This information is obtained from the returns furnished to us by the Board of Health Department. Probably they could supply it more in detail.

217. *President.] You stated that the orders in regard to New South Wales natives had in three years increased 31 per cent., Victorians 48 per cent., Tasmanians 9 per cent., New Zealand 17 per cent.;—can you account for the disproportionate increase in regard to the natives of the two first colonies?*

I cannot say why the Victorian increase is so much larger than that with regard to the natives of New South Wales.

218. *It points to the fact that we are getting poor people from there?*

It has that appearance. The number of orders granted to Victorians was 437 in 1896, and 354 in 1897, whereas in 1895 it was only 239. With regard to Tasmania and New Zealand, the three years' comparison shows an improvement on the five years.

219. *You mentioned something about the large number of seamen who apply for orders;—can you account for that in any way?*

No; we have no means of accounting for it. But probably it is not the seamen of our own population who swell the ranks of applicants. More likely it is seamen from other countries; and I am inclined to think that those applicants resident in the Colony less than twelve months are composed largely of this class.

(Additional and later statistics in regard to Government orders will be found in Appendix I.)

Walter Liberty Vernon sworn and examined:—

220. *President.] You are the Government Architect? Yes.*

221. *Have you inspected the buildings of the Coast Hospital? Not within the last month or two, nor in view of this inquiry.*

222. *You know their condition? I know their condition generally.*

223. *Dr. Manning.] You have been there frequently within the last year or two? I have been there occasionally, not frequently.*

224. *Can you indicate to us in what condition of repair the buildings generally are? The building erected in 1882, and that is the main wards, the kitchen, the nurses' quarters, the junior medical officers' quarters, the men's mess-room, the lazarette, police buildings, recreation hall, and scientific hall are the oldest buildings in the institution. They were erected in 1882, and they are more or less in a state of dilapidation. The proximity to the sea has a very strong effect upon the iron roof, the consequence being that the life of those buildings, and not only of the ironwork but also of the woodwork, is rather short. The buildings were put up, I understand, in 1882 to meet some scare. They are in such a state that I estimate they will last from about thirteen to fifteen years with annual repairs, but not longer. I have a list in the office now of general repairs amounting to £1,500, but it is not exclusively confined to that set of buildings. There were a class of buildings put up in 1892, including a clock-tower, and leper quarters for Chinese and Europeans, and they are in a better state of repair.*

225. *President.] What are they built of? The bulk of them of wood and iron, in some cases lined with iron as well as cased in iron.*

226. *Dr. Manning.] What is the life of those buildings? I consider that the life of those buildings will be from twenty-five to thirty years, of course, with repairs.*

227. *Recently some more permanent buildings have been erected? Yes. In 1897 and 1898 we put up a diphtheria ward, additions to nurses' quarters, and a number of other buildings. These are all of increased stability, and are an improvement upon the original building, and although they are erected of wood with iron casings and linings I consider that they will stand for another thirty-five or forty years. That is, with constant repairing in all cases, I am of opinion that repairs will keep on in an increased ratio per year in all those buildings.*

228. *Have any buildings of stone or brick been put up of late? We have just completed a new laundry and a fumigating-room in brick. That is practically the first building put up of a more permanent character.*

W. L. Vernon.  
21 April, 1899.

W. L. Vernon. 229. Why were they put up in stone and brick rather than on the old plan of using galvanised iron? One thing was to get stability in connection with the machinery for laundry purposes; another one was to avoid the increasing repairs in connection with these timber buildings. There was great doubt at the time as to what should be done, and at a subsequent period in connection with the new kitchen, I raised the question with Dr. Thompson as to what the future of the institution was to be, because that really would be a guide as to the class of buildings to be erected, whether they should be of a stable character of brick or stone, or of a temporary character. The laundry was built of brick, because at the time, I suppose, it was imagined that the chances were that the institution would remain permanent.

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230. What has been the cost of the buildings erected during the last two years in stone and brick? In 1897 and 1898 the infectious diseases ward cost £2,390 8s. 4d, and the furniture, £314 3s. 1d. There was a small sum of £68 for additions to the nurses' quarters. In 1898, including the laundry and several permanent additions, the cost was £3,338 2s. 2d; for furniture, £231 2s. 4d. Up to 1892 the expenditure upon the whole institution was £47,441. Since then, there has been a total expenditure of £11,337 12s. 7d. This latter amount is divided between loans and revenue. There has been an average expenditure since 1892 of £1,067 from Loans and £989 from Revenue.

231. What buildings are now contemplated at the hospital? The erection of a new kitchen and new kitchen plant, and the remaining proposals are very small at present. There are additions to the junior medical officers' quarters, and some rather large additions to the superintendent's quarters. Beyond that I cannot carry in my mind any further schemes.

232. Can you tell us what is the amount of money which it is proposed to expend over these contemplated additions? The additions to the junior medical officers' quarters, I think, come to about £350, and those to the superintendent's quarters to about £600. The question as to the kitchen has hardly got far enough to meet the estimated cost; the papers are passing through now in reference to whether it should be a permanent or temporary building.

233. *Mr. Barling.*] Can you tell us about what proportion the additional cost of brick would be over wood and iron? I should think about 30 per cent., because the hospital is in such an exposed position that if you are building in brick you must take special precautions against the south-easterly gales, otherwise you would not be so dry as you would be in a wooden building.

234. Would there be any appreciable difference in the building of a hospital on a site such as that of the Coast Hospital and at a place nearer Sydney? Yes; there is excessive cost in taking the material out there. I may mention, for instance, bricks. When I was out there the last time I found that the carters can only bring one load of bricks per day—that being a journey of 26 miles. The contractors are put to a great disadvantage as to cost, in not being able to send out two loads per day.

235. *Mr. Walker.*] That would add 5 per cent. to the cost? I think it would.

236. *President.*] Where are the nearest brick-works? At St. Peters. At present Little Bay is very inaccessible; it takes nearly a day to go there and back.

237. *Mr. Walker.*] Is there any protection from fire in the Coast Hospital? The protection of isolation more than anything else. There is a system of hydrants through the building, and we have the water supply from the city, but in a gale I do not suppose that the hydrants would stop any one ward from being burnt; but they are so well isolated that I do not think there is much to fear.

Robert Thompson Paton, L.R.C.P., Ed., F.R.C.S., Ed., sworn and examined:—

R. T. Paton,  
L.R.C.P.,  
F.R.C.S., Ed.

21 April, 1899.

238. *President.*] You are Government Medical Officer and Vaccinator? Yes.

239. *Dr. Manning.*] The majority of the cases sent to the Sydney Hospital to be treated at the Government expense, pass through your hands? They do.

240. Under whose instruction do you act? Those of the Chief Medical Officer, Dr. Thompson.

241. What, briefly, are those instructions? Either Dr. Taylor or myself is present at the Hospital Admission Depot between 10.30 and 12 every day, except Sundays, Christmas Day, and Good Friday. The persons presenting themselves at the Hospital Admission Depot are first interviewed by a clerk, who takes their particulars and inquiries as to their ability to pay anything for their maintenance, and whether they have received former hospital treatment. I have one of the forms here which shows the inquiries that we make. They are then sent into my room and examined by me, and if I find that they are suffering from some disease, and it requires active hospital treatment, and if they are not suitable cases to stand a journey to the Coast Hospital—

242. If they are so acutely ill? Yes, as not to be able to stand the journey to the Coast Hospital, I issue Government orders for their admission to the Sydney or Prince Alfred Hospital. If they require hospital treatment and are able to bear the journey to the Coast Hospital, I issue an order on the Coast Hospital, and they are sent there by an ambulance that leaves the depot every day at 12 o'clock. If they have a home and can be treated as out-patients, I issue an out-patient's order on the Sydney or the Prince Alfred Hospital. If they are destitute and suffering from chronic disease, I issue an order for one of the Government asylums.

243. What staff have you besides the clerk? One messenger, who shows the people in.

244. Have the instructions been modified at all lately? No.

245. And how does it happen that a rather different class of cases have been sent to the Coast Hospital within the last twelve or eighteen months? Probably cases that would formerly have gone to one of the metropolitan hospitals have been sent to the Coast Hospital. It simply depends upon the number of beds that we have vacant. If there are a number of beds vacant at the Coast Hospital, and we have none at the Sydney or Prince Alfred Hospital, patients are sent to the Coast Hospital.

246. Yes; but I gather that there had been a much larger proportion of cases needing operative interference, and acute cases, sent to the Coast Hospital within the last twelve or eighteen months? Then it was because there was not accommodation in the metropolitan hospitals.

247. You have had very large experience of hospitals;—do you think it is wise to make the Coast Hospital, which is a considerable distance away, into an operative hospital? No, I do not think it is.

248. Operations involve the giving of chloroform? Yes.

249. And very considerable skill? Yes.

250. And it is not advisable, is it, that these things should be done without the checks which are imposed by the presence of visitors and students in an ordinary hospital? No. I think that operation cases would be done in a public hospital, and should be under the criticism of the medical profession. R. T. Paton/  
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251. So that it is not advisable that operation cases should be treated at the Coast Hospital? No; it is not advisable, if it can be avoided. 21 April, 1899:
252. You told us how you send some of these cases;—is any preference expressed for any one or other hospital by the patients? The patients nearly always wish to go to the Sydney or Prince Alfred Hospital. They ask to be sent there.
253. What are their objections to the Coast Hospital? I think its remoteness. They cannot be visited there by their friends.
254. Not because of the treatment or of the way in which they are fed? No; they say that if they go there they would not be able to see their friends.
255. Do they object to go to the Asylum for the Infirm and Destitute? Yes, a good number of them do.
256. Why? They do not seem to be satisfied with the treatment there. A great number leave the asylums and re-apply and attempt to get either to the Coast Hospital or to one of the metropolitan hospitals.
257. Do you think that is because of the dietary or because the accommodation is not so good at the asylums for the infirm and destitute? I do not know exactly the reason. They seem to be dissatisfied with the asylum, but I never could be certain as to the particular reason for their dissatisfaction.
258. Could the majority of cases sent to the Coast Hospital be treated in a proper poorhouse hospital—I do not mean a hospital in connection with the asylums for the infirm and destitute as they now exist, but hospitals in connection with the infirm and destitute institutions as they should be? If you did not send any operation cases and infectious fever cases then a large percentage of them could be treated there.
259. Do you think that the majority of ordinary cases treated at the Coast Hospital could be treated in a properly-constructed and properly-managed hospital for the infirm and destitute? A great number of them could be treated in such a hospital as you describe.
260. I may say that Dr. Thompson thinks that no more than 30 per cent. could be so treated;—what is your view on that subject? Well, the Coast Hospital takes a lot of typhoid cases.
261. I am excluding those and all infectious diseases, and taking the ordinary hospital cases? I could not be sure as to the exact number, but I should say that a large number could be treated there.
262. You think over 30 per cent.? Yes, over 30 per cent.
263. You know, of course, what the present hospital accommodation of Sydney is? Yes.
264. Do you think it is sufficient for the needs of the population? No; I think they require more beds than they have—that is, presuming that they were to take all those cases which we are now sending to the Coast Hospital.
265. And if additions are to be made, what do you think will be the best form of making them;—what form do you think the additional accommodation in the metropolitan hospitals should take? Do you mean as regards an increased number of beds?
266. Would you add to the Sydney or the Prince Alfred Hospital; and in what way would you add to it? You could add to the Sydney Hospital by increasing it a storey. I am not quite sure as to how you could increase the accommodation at the Prince Alfred Hospital.
267. Is hospital relief sought for by undeserving cases to any large extent? Not to any large extent. A number of people who could afford to pay very often apply at the hospital admission depot. If this is discovered they are refused; but I daresay that a number get into the hospital on Government orders who could afford to pay.
268. I find that you reject upwards of 300 a year? Yes.
269. That is after an inquiry which is not very searching in its character? No; it is simply an inquiry of the applicants as to what property they possess.
270. You have no corroborative evidence? No.
271. And you have no means of following up that inquiry at the people's own homes? No; we have no means of inquiring at their homes.
272. In fact, in no case do you check what they tell you by any further inquiries? No.
273. The hospitals have grown very much in special departments? Yes.
274. Do you think this specialisation of hospital work is necessary? Yes; as regards the eye department of the Sydney Hospital.
275. I am going into that afterwards; I mean the specialisation more recently established with regard to diseases of the throat, ear, and nose? The majority of the throat and ear cases are outdoor cases. I admit very few to the hospital to be treated for throat and ear complaints.
276. Are you aware that there have been special departments made at the Sydney and Prince Alfred Hospitals within the last year or two? Yes.
277. Do you not think that this has been more for the benefit of enterprising medical men than for the good of the patients? No; I think it is necessary that a man should have skill in those particular departments. I mean that the ordinary surgeon is not usually skilled in the treatment of ear diseases, and I think it is necessary and right that such departments should be specialised.
278. You have some idea of the rates of payment made to the hospitals? Yes.
279. Have you formed any idea of what should be the system under which hospitals should receive payments from their patients? Patients who can afford to pay 10s. a week have to be admitted; but we refuse to recognise them as pauper patients. We give such a patient a recommendation, saying that he can afford to pay 10s. a week, and they take him in on that; but they lose by it. I do not think it pays the hospital to take a patient for less than 25s. a week.
280. Do you think it is right that they should take paying patients up to those rates? Under certain circumstances, I think, it is right. There are a number of people who can afford to pay 25s. a week who would go into a hospital for an operation or to be nursed, but who could not afford to pay for nursing and for an operation in their own homes. A man suffering from acute pneumonia would require a night and day nurse, and his house might be unsuited for the treatment of this disease. A man who could pay 25s. a week, and go to the hospital, would have a better chance of recovering from his disease than he would have if he remained outside.

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281. But where the hospital accommodation is over-strained, as you say it is in Sydney, the taking in of paying patients must restrict the number of more necessitous cases that might be taken? Yes; it does.
282. Therefore, it means a necessity for increased hospital accommodation, practically for a class who could largely afford to go into private hospitals? I do not think that a man could be treated in a private hospital for 25s. a week.
283. Has the enormous number of out-patients struck you? Yes.
284. We find that it is between 45,000 and 50,000 individuals at the hospitals;—does not that seem a very large number for the metropolis? It does.
285. Could you tell us how far you think the Coast Hospital is suitable as a hospital for infectious diseases? It is suited for infectious diseases, but very often I get cases that are too ill to go there,—for instance, a typhoid case in the second or third week. Such a case is too ill to be removed to the Coast Hospital—the distance is too great; consequently, I have to put the patient in one of the metropolitan hospitals.
286. Let us exclude typhoid and deal with the ordinary infectious diseases;—what do you say about them? I think the Coast Hospital is a suitable place for treating such cases.
287. Can you give us any objections to it in dealing with those cases? There are several objections to the Coast Hospital. I have not any recent knowledge of that hospital. One objection was that they had no accommodation for mixed scarlet fever and diphtheria cases. I do not know whether they have any now or not. Then the conveying of them in ambulances that had to be disinfected. But with proper accommodation I should think the Coast Hospital would be a suitable place for the treatment of infectious diseases.
288. The first objection you mentioned—that there was no suitable accommodation—could easily be met by a re-arrangement of the wards? Yes.
289. And the second could be met by providing greater facilities for transit? Yes.
290. In the Sydney Hospital there are female lock cases? Yes.
291. What is the number? I have not got them separate. I have all the venereal cases together. We have not many beds for female lock cases. The only beds we have are in the Sydney Hospital. I do not think they exceed twenty.
292. Do you think these cases could be provided for elsewhere under proper conditions? Yes.
293. Where do you suggest that they should be provided for? At the Coast Hospital.
294. Then you have a very bad class of women and a bad class of men, the women possibly being worse than the men as a class, and they would be in very open wards at the Coast Hospital? If the female lock cases were transferred to the Coast Hospital they would have to be in an enclosure.
295. You think that the difficulty of treating female lock cases at the Coast Hospital could be met by treating them in enclosures? I think so.
296. It is part of your duty to visit the hospitals, and to check the stay of the Government cases? Yes.
297. How often do you pay such visits? Once a month.
298. Do you find any tendency on the part of the officials to keep those cases unnecessarily? No.
299. Turning now to Moorcliff—would it not be advisable that those eye cases should be treated in the main Sydney Hospital? Yes; I think they ought to be treated in the main hospital.
300. What is the number of cases treated at Moorcliff? Last year there were 325 order cases.
301. Do you know the number of beds at Moorcliff? I have not got the correct number.
302. What is the length of the stay of those eye cases; is it not greater than that of the ordinary hospital cases? Yes; very much greater.
303. Can you give us any idea of the average number of days that they are in the hospital? No; I have known cases to remain in Moorcliff Hospital for at least a year.
304. Are there many cases admitted that are not fit cases to be there? No; the beds are so very much in request that if a case goes to Moorcliff Hospital that is not a fit case they very soon get rid of it.
305. Are there any extra colonial cases? Yes; there are a number of them. During last year a number of people from other colonies and from beyond sea applied for admission. Of persons under one month in the Colony 164 applied, and from one month to six months, 267, giving a total of 431.
306. I am speaking more particularly of Moorcliff eye cases? A number of those cases that I am speaking of came from other colonies, principally from Queensland and were eye cases.
307. I see that Sydney Hospital, in its report for 1896, rather prides itself upon the magnitude of its dealings with eye cases, and says that the eye department is not only known throughout New South Wales, but attracts patients from the neighbouring colonies? That is so. A number of people come from Queensland. Queensland is the colony that sends the most eye cases.
308. Is that because this place is on a large scale? No; I am inclined to think that it is because the eye surgeons here have a very great reputation.
309. The department for eye diseases is on a larger scale than at almost any other place compared with the size of the town and the size of the hospital to which it is attached? Yes.
310. Do you know any other place in the world of the size of the Sydney Hospital that has four ophthalmic surgeons attached to it? Not out of London.
311. You have a good deal to do with Sydney Hospital? Yes, as regards admitting patients.
312. I suppose you look upon it as the main function of that hospital to admit accidents and urgent cases? Yes.
313. From what you have seen, do you think that room could be made in that hospital for the Moorcliff cases? Yes, room could be made for them by addition to the hospital.
314. Are you aware that those wards at the back of the administrative buildings were formerly intended for ophthalmic cases? I have heard that they were.
315. But they have been appropriated for other cases? Yes.
316. Have you anything to do with suburban hospitals? No.
317. Have you anything to do with convalescent hospitals? We occasionally send cases to the Carrington Hospital.
318. You send them direct from the dépôt? Yes; and they are paid for by the Government at the rate of 2s. a day. We do not send many cases. As a matter of fact, we get very few beds.
319. You have, besides issuing hospital orders, to give orders for appliances which have been described as trusses, spectacles, artificial limbs, &c.? Yes; we occasionally give artificial limbs, bandages, glasses, trusses, &c.

320. Is the expenditure on these articles large? The expenditure on glasses is the greatest. Every year we are getting more people applying for glasses. It is only a few years since we started supplying them. We had a number of cases applying for admission that required glasses, and we started to give them when they left the hospital.
321. And now you are supplying glasses to a very large number? Yes; the demand is increasing every year.
322. The Prince Alfred and Sydney Hospitals also supply trusses and other appliances? If they are Government patients who want them, the articles are supplied at the expense of the Government.
323. In addition to that, some new society has started for supplying them? Yes; I believe so. One of the things which lately we have had to supply is abdominal belts for women.
324. Do you know anything about the private hospitals in Sydney? No.
325. Do you know how many there are? I do not.
326. Have you formed any opinion as to the necessity for the inspection of these private hospitals? That is a thing which I have not thought about.
327. *President.*] You said you had no means of following up the inquiries made;—does that refer to the inquiries made by you or by the clerk? The inquiries are made by the clerk, and I always check them.
328. Has not the Charities Department machinery for following up these inquiries? Not for our cases.
329. Have they no inspectors? Not for this purpose. Some years ago there was a Sub-Inspector of Police, Mr. Long, who was clerk at the Hospital Admission Depot, and if we had a very doubtful case he used to make inquiries when disengaged. Even if you suspect that a man has means, you cannot refuse to admit him to the hospital if he is very sick.
330. *Mr. Barling.*] Evidence has been given to us from the Statistician's Department that out of the whole number of hospital patients treated, some 500 had been resident less than one year in the Colony;—have you some information to give us on that point? Last Tuesday I admitted four people—R—S—, 27 years of age, who was three weeks from Western Australia, and was suffering from consumption, and whom we sent to an asylum; he had no home; he had been existing on a few shillings that he possessed, sleeping at a lodging house; he had never been in New South Wales before, and was a native of Canada. Another case was that of H—S—, 22 years of age, native of Denmark, who had been six months in the Colony, and had been discharged from a steamship of the Aberdeen line, on account of ill-health, six months before; he was suffering from phthisis, and was sent to a Government asylum. Another case was that of A—R—, aged 30 years, who had been six months in the Colony, and was suffering from tuberculous glands of the neck; he had been discharged from a steamship; he was sent to the Sydney Hospital to have the glands removed. The other case was that of A—O—, aged 24 years, who had been three weeks in the Colony, and had come from Victoria; she was suffering from advanced phthisis, and was sent to the Sydney Hospital as an indoor patient. This A—O— was ill in Victoria, and her sister, who resides here, thinking that the climate of New South Wales would agree with her better than the climate of the other Colony, got her over here, kept her three weeks, then sent her to the hospital extremely ill. These are four cases selected from one morning's work.
331. These are instances of the way in which the Government liberality is used here for the benefit of people from outside the Colony who come here to be treated at the Government expense? Some are attracted by the climate, and some by the reputation of the surgeons. The eye cases come mostly from Queensland. I think they are attracted by the results of operations which they have heard of. A number of cases of phthisis at the beginning of winter begin to come in from the southern colonies.
332. Have you any information to give us to seamen discharged from ships here for the purpose of being sent to the hospital? Yes; I had to send five seamen from the Orient line to the hospital at the Government expense—two from the "Ophir," two from the "Oruba," and one from the "Orient." The way they disposed of them was as follows:—I found that they were on the articles of the ships, and I refused to treat them, and sent them back to the ship. The captain, or somebody acting for him, took the men to the Shipping-master and had them discharged. Then they came to me again destitute, or with only a few shillings. These men were all suffering from venereal disease, and they were so ill that they had to be sent to the hospital. They were sent to the Coast Hospital.
333. Do they pay anything? No, they pay nothing. Some will be a charge on the Colony for a long time. Two were suffering from gonorrhoeal rheumatism, and will not be able to earn their living for at least a year.
334. Are you aware whether the companies have any responsibility as to paying the expenses of the seamen from their boats? I believe that as soon as ever they can get them discharged by the Shipping-master their responsibility ceases.
335. Is the Shipping-master compelled to discharge them on their applying to be discharged? I am inclined to think he is. I informed Dr. Thompson, and he saw some of the Crown Law Officers, and I infer that they have power to do it, because it has not been stopped.
336. You think there is some defect in the law? Yes.
337. And that it would be desirable to strengthen the law in that particular, so as to prevent the Government from being imposed upon in that way? Yes. The North German Lloyd Company sometimes send cases, but they pay for them and take them away as soon as they are well enough.
338. Is that the only company that show any regard to their obligations? I never had any cases from the P. & O. Company.
339. The North German Lloyd Company pay? Yes, and take the men back to Germany.
340. Do they pay sufficient to recoup the Government? The man pays 10s. a week, but the company makes themselves responsible for the paying whilst he is in the hospital.
341. Have you anything to suggest by which this charge upon the Government should be put a stop to? Yes; some years ago they used to land lunatics in New South Wales in the same way as the now land sick men. I think a similar law to the amended Lunacy Act would be effective.
342. Of course such a large number as 501 persons being treated in our hospitals means a very heavy charge? I think there are more than 501 in a year, because I have got 431 applications from persons who were only six months in the Colony.
343. Your idea is that that is a mistake? I think there must be a great deal more than 500.

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344. Evidence has been given to us that whilst the increased population in the last quinquennial period has been  $8\frac{1}{2}$  per cent., the increase in the hospital orders has been for outdoor patients, 70 per cent.; for indoor patients, 20 per cent.; and for appliances, 43 per cent.;—have you any idea how it comes about that our hospital expenditure so far outruns what you would think would be its proportion to the increased population of the Colony? Of late years the number of people who could formerly pay for medical attendance have found themselves unable to pay. A great number of the bread-winners of families have emigrated—have gone to Western Australia, South Africa, and other places, and left their families here.
345. It is another instance showing the low wage-earning power of the population? Yes; but a great number of cases have come under my observation, in which the head of the family was in Africa or West Australia, and had not been heard of for months, and the family were destitute. They have been assisted with medicine and with recommendations to the charities.
346. You said in your reply to Dr. Mauning that a great many patients display a preference for the Sydney and Prince Alfred Hospital rather than the Coast Hospital? Yes.
347. Might not a part of the reason be that in those two hospitals they get the highest medical attendance, and the best surgeons to be found in Sydney, whereas, although there are first-class officers in the Coast Hospital, they are confined to Government officers—they have not the run of the talent of Sydney? It may be that; but the reason they always gave me was that they would not be able to see their friends at the Coast Hospital.
348. Is it not a fact that, to a very large extent, the Coast Hospital is run on the same lines as the Sydney and Prince Alfred Hospitals? Yes; except as regards the major operation cases.
349. In the Sydney Hospital and the Prince Alfred Hospital they have all the medical men of Sydney attending? Yes; at the Coast Hospital they have only the resident medical officer.
350. Do you think it would be desirable that that hospital should be thrown open to the medical faculty to perform operations and attend medical cases? The Coast Hospital is, in my opinion, too far away for that.
351. Yes, but apart from that, do you think it would be advantageous to the poor of Sydney if the Coast Hospital were near enough to have it thrown open to honorary officers? Yes.
352. You think that the poor would profit by that? Yes.
353. Does not that lead to the conclusion that the Coast Hospital on that account is too far away and ought to be nearer Sydney? Yes; it would be desirable to have it nearer.
354. Are not the poor of Sydney suffering a distinct loss by reason of their not having the attention of the medical faculty at that hospital? Yes; the Coast Hospital would be very much more useful if it was close to Sydney.
355. The poor would get better treatment if the hospital were nearer Sydney and if it were thrown open to the whole medical faculty? Yes.
356. Your idea is, that it would be a distinct gain to the poor of Sydney if the Coast Hospital were nearer, and the medical profession had access to it as they have to other hospitals? I think so.
357. Looking at the whole question of hospital accommodation and hospital management—have you anything to suggest that would help the Commission in coming to a determination in the matter? There is one thing about venereal cases. During last year 984 cases passed through the Hospital Admission Depot. During the first three months of this year we have had 338 cases, and we have not got sufficient accommodation for them at the Coast Hospital. We only send them there.
358. You do not send venereal cases to the other hospitals? Yes, we send female cases to the Sydney Hospital.
359. What is there to prevent you from sending the male cases to the Sydney Hospital? Because in the Sydney or Prince Alfred Hospital they would have to be nursed by women, and we do not think that that is right. They are, therefore, sent to the Coast Hospital, where they are attended by wardsmen. I do not think it right to mix them up in the same wards with other cases, on account of the danger of infection.
360. What increased accommodation would meet the want? At present we have practically an epidemic of venereal disease. I never remember having so many cases as we have had in the first three months of this year. I think that another ten or eleven beds at the Coast Hospital are actually needed. As a matter of fact, the way to get rid of venereal disease will be to secure the women. I send a woman into the hospital, she being ill and not able to go about, but as soon as she can walk about with any degree of comfort she will come out and disseminate disease all over the town.
361. Have they not some Act in Queensland dealing with it? They have a Contagious Diseases Act in Queensland.
362. Does it diminish the disease? It does in other countries; I do not know about Queensland.
363. Are you aware that a number of these female venereal cases, by reason of the restrictions in Queensland, are thrown into this Colony? I am not aware of it, but I think it is probable.
364. Therefore, the abnormal number that we have of that class of disease cases may be due to the restrictions in Queensland? I should think that a woman there who finds that she is affected would come with the first boat to New South Wales.
365. *Mr. Walker.* You say that you admit all the people to the hospitals? Yes.
366. Do you admit them to the asylums for the infirm and destitute too? Yes.
367. Does anybody else give orders besides you for admission to the hospitals or asylums? Dr. Taylor does.
368. Does not Mr. Simms give orders? I do not think Mr. Simms does. Mr. Gullick, one of the clerks of the Board of Health, gives orders for the Sydney Hospital.
369. Do not patients sometimes go in without orders, the orders being sent in afterwards? Some cases are admitted in this fashion: they are outdoor patients, and if one is found to be ill, and it is thought it would be injurious for the patient to go to the Hospital Admission Depot, they send me a note telling me the man's ailment, and I make inquiries of his friends as to their ability to pay, and so on; then I issue a Government order.
370. A person applies who says he is without means, but it is afterwards found he has money,—do they not compel him to pay? They would if he had money.
371. So there is no chance of their cheating the Government on an order unless they can hide their money? No; if we find that they have money we compel them to pay. At one time the patients all had to apply at the depot, but this enhanced the risks which they ran. At present a medical man sometimes communicates with me by telephone, and I issue the order without the patient appearing at the depot.

372. *Mr. Powell.*] You spoke about the discharge of seamen—if they are discharged for medical treatment, should not the Shipping-master impound whatever wages are due to them? I do not know whether he can.
373. Of course, they break their contract by mutual consent, and they do it for a reason; and if that reason be that the men require medical treatment which will be chargeable to the Government, should not their wages be impounded to pay the expense? Yes; but can the Shipping-master do that?
374. If a man is discharged from a ship for the purpose of medical treatment, and if that is to become chargeable to a Government institution, could not the Shipping-master or the Government Officer refuse to give a discharge unless someone became responsible for the expense? As a matter of fact, the men usually have very little money.
375. *Dr. Manning.*] Are you aware if any complaints have been made by medical officers in the Squadron as regards the large amount of venereal disease in Sydney? I have heard that they have complained about it. I do not remember ever before meeting with so many cases as we have now.

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L.R.O.P.  
F.R.C.S., Ed.

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THURSDAY, 27 APRIL, 1899.

[*The Commission met at the Offices of the Public Service Board, at 10.30 o'clock a.m.*]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).

F. N. MANNING, Esq., M.D.

J. POWELL, Esq., J.P.

J. BARLING, Esq., J.P.

CRITCHETT WALKER, Esq., C.M.G.

The Hon. Sir Arthur Renwick, M.D., sworn and examined:—

376. *President.*] You are President of the Sydney Hospital? I am President of the Sydney Hospital, and the only surviving trustee of the land granted by the Crown for the use of the hospital.
377. How many beds are there in the Sydney Hospital? There are 189 beds for males, and 129 for females.
378. How are the beds allotted to the various wards? They are divided in this way. We have accident wards, wards for surgical cases, medical wards, and wards devoted to special diseases, such as women's diseases; and, besides these, eye cases are treated in a branch of the Sydney Hospital.
379. Are any lock cases received? We have some lock cases. At one time we had a ward devoted solely to them.
380. How many cases are there in the lock ward? About thirteen.
381. Is the accommodation sufficient, taking the hospital as a whole, to meet the demands upon it? Certainly not. It is not sufficient to meet the demands of the city.
382. No doubt you have thought the matter out;—have you any suggestion to make? With regard to the bed accommodation, I am afraid that the Sydney Hospital could not be arranged so as to make a larger provision than there is at present. The building is not yet completed. I may explain that we have an operating theatre which is rather behind the times. When originally constructed it was well adapted for its purpose, but now we have such a large number of operations daily that we have actually to use a room adjoining for operation purposes, and sometimes we have as many as two operations going on at one time in the operating theatre. Then, in regard to the Nightingale wing, we had not good accommodation there for the nurses. We should like to have additions made to the Nightingale wing which could be done without infringing on the air space or other arrangements connected with the hospital. We want accommodation for fifteen or twenty more nurses. We have no provision for laundry purposes, and we have to give out our washing. It might be arranged for a one-storey building to be built at the bottom of the ground on the left-hand side for laundry purposes. It would have to be a one-storey building; it could not be larger on account of the air. Then we have made provision for a school of dentistry in connection with the hospital. A building would be required, and that would be placed over the building where the steam-engine is at present. Professor Anderson Stuart and myself have gone into the matter, and we find that we can accommodate a dentistry school at the Sydney Hospital at an expense of about £1,000. It will not interfere with the arrangements of the hospital, and it will be a great boon to young people in Sydney who wish to be educated in dentistry. I may state that we have to arrange a curriculum, and the University is prepared to assist us. The only thing we are waiting for is the passing through Parliament of a Bill, which is now before the Legislative Assembly. These are the principal things which are required to make the hospital complete. I consider that it would be difficult to add to the bed accommodation in the present buildings; but for a properly-administered hospital the adjuncts I have mentioned are necessary to make it complete.
383. Why would it be inadvisable to add to the number of beds? Because we have not room, unless you put another storey on the top of the building. It is always a source of danger, however, to make a building too high, and especially in a hospital where there are people who are unable to move about freely.
384. Have you the average number of beds occupied? The average number of beds occupied is about 293.
385. Does that include Moorcliff? Yes.
386. Could not the eye cases at Moorcliff be received into the hospital under some arrangement? I have been pointing out that we have insufficient accommodation at present in the institution for the claims that are made. In every well-regulated hospital there ought to be a number of spare beds at all times in case of any great accident in the city, or any outbreak of disease. But that we cannot possibly make provision for under present circumstances. What I would rather suggest in connection with ophthalmic patients is that the Government, as I have already recommended, should resume the site at Moorcliff, which is a splendid site for the purpose, and is recommended by all the medical gentlemen connected with it—for ophthalmic purposes—and build on it a more modern structure. The building at present used is old; it is infested with vermin at times, and it is a continual source of expense to the institution in regard to repairs and alterations. But still the operations there are most successful, and it has really become the ophthalmic institution of Australia.
387. Was not the main hospital planned and arranged to meet these requirements? Yes; but when that plan was made it was intended to have another storey on the top of the present building. If that had been

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been carried out, in all probability we could have accommodated those cases in one of the blocks prepared, called the ophthalmic block, but not having got that storey we are compelled to use Moorcliff, and we could not do without it.

388. Am I right then in assuming that the idea of having another storey is why the building was made so very heavy and massive? That is one of the reasons.

389. Are not the closets and lavatories very large in proportion to the establishment? Yes, to some extent they are; but I have always been of opinion, and I had that opinion carried out to some extent in this matter, that it is a great mistake not to have sufficient space in lavatories. One institution which you have visited, and a large one, has about half the lavatory space that the Sydney Hospital has, and it is almost impossible to keep down the smell, notwithstanding the use of disinfectants.

390. I thought that would be a matter of ventilation? It is; but everyone knows that in connection with hospitals and institutions for those specially afflicted there are people who are incapable of attending properly to themselves. There is always a difficulty about it. Whilst there is too much space allowed at the Sydney Hospital, there is too little allowed at the other institution to which I have referred.

391. The administrative offices and the officers' quarters are very large at the Sydney Hospital? They are not sufficiently large for their purposes. We have had to divide the rooms off in order to provide additional accommodation for an additional number of medical officers. I have no doubt that if the Moorcliff institution were carried out in the way I am suggesting, and also considering that we are now going largely into the matter of bacteriological investigation of disease, it would require an additional resident medical officer by-and-bye, and if we have a school of dentistry we shall require still further additional accommodation. If the original plan had been carried out it was intended that some of the rooms should be used for private patients and patients requiring separate treatment.

392. We were rather struck with the nurses' quarters;—they seem to be very dark, and some half-dozen nurses sleep in one room? That is owing to want of accommodation. If we were to carry the Nightingale wing about 20 feet further to the east, and give a little more light and further ventilation, I think the building would be much more complete and satisfactory. If we carried it 20 feet further, that would complete the work. We have had the architect there to look at it.

393. The rooms are very dark? Yes.

394. Then what about so many nurses sleeping in the same room? That is objectionable. If we had this additional accommodation that would be avoided entirely.

395. What remarks have you to make about the out-patients department? The only remark I have to make about that is this, that I think it is rather overdone.

396. I am speaking now as to the matter of accommodation? The accommodation is not so complete as we might desire, but it answers all present purposes. We have had under consideration the desirableness of making a change—putting additional rooms below, and carrying out into one of the quadrangles some additional rooms for medical officers connected with that department. That has been considered, but we would rather have a small thing perfect than have a large thing imperfect, which might afterwards be unpleasant. That is why we have not blocked up the space in the lower part of the building.

397. Then the pathological and the bacteriological department is large? I am quite sure that it is not too large. That will be a most valuable adjunct to the institution. It is the most perfect thing in the Southern Hemisphere connected with hospitals. As the work progresses, and as we understand more of the subject, I am quite sure it will make a complete change in the modes of treating disease. At any rate, researches are being made there of a very valuable character. It is becoming more important every day. I am sure that we shall have to have additions to the staff that we have there at present. We have one of the resident medical officers who has had a little experience in connection with the thing, and he desires to know more. We shall have to add one or two more to that department to run it properly.

398. Are you satisfied with the children's ward? They are sufficient for present purposes. Of course I consider that they might well be treated in a separate institution. If we had accommodation for adults, and children were accommodated in a separate institution, that would be better.

399. The room is not very bright? No; but the children are always very cheerful there. They are very contented and pleased; they sit principally on the verandah. They are very happy there, but still I am satisfied that children, like ophthalmic patients, would be far better in an institution devoted entirely to their particular diseases.

400. It is reported that there was no hot water laid on to the wards? No; that is a defect which we are going to remedy as soon as possible. Of course we could make the thing complete if we had the money at our disposal, but we are always hampered by considerations of expense. It is a pity the Government took the view which they did, because it is only by Government assistance that we could manage to carry on. The private assistance which we are getting is about as large as we could anticipate. At present I do not see how we can get more. The Government assists us from time to time, but these improvements require considerable funds. We have to do the best we can. It has been arranged that hot water shall be laid on.

401. What is the number of your in-patients? The total number of beds is 155 for males and 95 for females in main building.

402. *Mr. Barling.*] I suppose you are aware of the report which was made to the Colonial Secretary in 1883. It was a report asked for in connection with the hospital requirements of the city, reports being asked for from the President of the Board of Health, from Dr. McLaurin, and others? I remember it.

402½. Dr. Mackellar, in his report, says:—

According to Oppert, who is one of the best English authorities, there should be provided in the large town districts four hospital beds for every thousand of the inhabitants, including Union Infirmary beds, which are calculated to be one-fourth of the whole. Were we to accept the first estimate, we would be already in possession of numbers far in excess of our requirements; and were we to accept the latter, we would find ourselves very far short of the requisite number. I think that a safe and fair estimate, considering the circumstances of our labouring population, which is vastly better off than the same class in the mother country, would be three hospital beds per thousand, and that one-fourth of these should be in the hospitals of the Government Asylums for the Infirm and Destitute.

I got the Statistician to get out for me the present population of Sydney, which is 426,950. The number of beds per thousand of the population, according to the published returns for the year 1898, "Information not yet available"; 1897, total number of beds, 3,018 for the whole of the Colony, or an average of 2.3 per thousand of the population. Taking the metropolitan and suburban area only, the number of beds is 3 per 1,000 of the population, the total being 1,232 beds. According to that it will be seen that there are now three beds per thousand of the population, which would seem to carry out the recommendation

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of Dr. Mackellar;—we should like to know what your idea is on the whole subject in view of that statement of Dr. Mackellar's and the statistics on the subject? With regard to the statistics and the principle laid down in connection with them, you will find, as in most cases of human experience, that you have to look to practical details as well as to statistics. As a matter of fact, we know that no hospital question like this can be considered as a simple question of statistics. I have already explained that in our institution we receive medical cases, surgical cases, cases of women's diseases, and ophthalmic cases. Those statistics, of course, refer to general hospital experience; therefore, in regard to our accommodation, if you deduct the special matters you will find that they are below the mark. We make provision for thirteen or fourteen gynaecological. We have lock cases also, and those beds must be deducted from our accommodation. Independent of that argument, I should like to point out that sickness and accidents occur in waves. You cannot have any regular statistical basis on which to go in a matter of this kind. In addition to that, in every well-regulated hospital, whether surgical or medical, there ought to be a certain proportion of spare beds kept for various purposes—first of all, in case of a wave of accidents or a wave of diseases; next in order, that the wards may from time to time be evacuated of their patients, and means taken to put them in a proper hygienic condition. It is a great mistake to overcrowd any hospital, or to depend purely on statistics. In my opinion, the hospital accommodation in Sydney, when you take it as a whole—the Sydney, the Prince Alfred, and the St. Vincent Hospital—is not sufficient at the present time. I only state it in a rough way, without reference to statistics, and as the result of my own practical observation.

403. The full number of beds, the estimate by English authorities being 4 per 1,000, would show the necessity for 427 additional beds;—do you think that would be sufficient? I would not rely entirely upon statistics. First of all, the climatic conditions here are quite different from those of Germany, where, I suppose, that calculation was made, and they are different from those of England.

404. Then you do not give an estimate? I could not give an estimate on a statistical basis of that kind at all, nor would I rely upon it.

405. Without referring to statistics, what additional accommodation in the way of beds do you think will be required to fairly meet the population? Some years ago, when the matter was very much before the public, I stated what the accommodation should be at the Sydney Hospital, Prince Alfred Hospital, and St. Vincent's Hospital, and my impression was that a fourth hospital, in a different direction, would be necessary in the course of time, and that its situation would depend entirely upon the spread of population. That was calculated only on the natural increase of the population.

406. Then your idea is, shortly, that another hospital of considerable size would be required to meet the necessities of Sydney and its suburbs? Yes.

407. Would you call a hospital a large one which had accommodation for 427 patients? Yes.

408. That would be about 4 per 1,000? I was going to say that my views had been considerably modified by the fact that little suburban hospitals have been created in most of the large centres of population in the metropolis, but, independently of that, I consider that another large hospital will be necessary in the course of time, because in those small hospitals, however excellent they may be for the treatment of accidents and diseases for special cases, you must have the cream of the profession, and the cream of the profession will always be attached to the large hospitals. I say that without any derogation of the well-intentioned efforts exerted in connection with the small hospitals.

409. I think I gathered from your answer to one of Mr. Wilson's questions that you do not think that the accommodation at the Sydney Hospital is at all extravagant? I am sure it is not.

410. When the building was erected, I presume you were consulted, and approved of the plans? Yes.

411. *President.*] Taking the number of beds as 3 per 1,000 for Sydney, is it not a fact that many patients come from the country? A great number come from the country. From all parts of the Colony persons come to those large hospitals for special treatment, and that modifies any estimate that might be formed from statistics. It is a little different in regard to England and Germany; in Great Britain you have large centres of population, and large hospitals in those centres, so that there is not so much travelling to great hospitals (say) in London. Here the great hospitals are in Sydney and Melbourne. In England they are not only in London, but also in Birmingham, Manchester, Glasgow, and Edinburgh. You have in those towns large hospitals, and you have the special skill that must be necessary.

412. And those centres are only a few miles away? They are within easy reach. The whole country is small compared with these colonies. You can see, therefore, that statistics are not always reliable.

413. *Mr. Walker.*] Do you think that the Moorcliff Hospital is too large for its purpose? No, by no means; the space is just sufficient for the purposes I have indicated. At one time, when Sir Alexander Stuart was Premier, it was proposed that Moorcliff should be turned into a Lock hospital. It might be used for that purpose, but it will be infinitely more advantageous to the city to have it used for an eye hospital. It has all the advantages of clear air and good elevation. It is not too much exposed to the sea breezes, and in that institution cures are effected with remarkable rapidity.

414. Do you think there are too many officers in connection with it? There is one matron; and the number of nurses is regulated by the matron.

415. Do you think the buildings are adequate for the purposes for which they are intended? They are at present; but they are not of a kind exactly suitable for the purpose. The most is made of them; but if we had a proper building the results would be very much better in every way.

416. Do you think that if the institution were put in the Sydney Hospital you would have sufficient room there for the accommodation of the patients? Yes; if you give us another storey. Of course there are objections to putting up another storey which I have already mentioned. There are dangers in connection with a building that is too lofty in regard to the removal of patients in any great emergency.

417. You said that a great many people came from the country for special treatment at Sydney Hospital;—do you think that if in large centres, or in such places as Wagga Wagga, Bathurst, and Goulburn, large hospitals were established it would not prevent those people from coming to Sydney? I do not think that such hospitals would be suitable for the purpose; first of all, you would not get the medical attendance, the population in those places not being sufficient to maintain special men. I meant a fourth hospital within the metropolitan area. Bathurst, with a population of a few thousand, could not maintain an ophthalmic or gynaecological surgeon, and the Sydney hospitals get the services of those men gratuitously.

418. If a large hospital were established at Newcastle or Maitland, would not the population there be sufficient? Then you would require to pay those men, but you get their services here gratuitously.

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419. Yes; but I gathered from a reply of yours that the Sydney hospitals were overcrowded by these people coming from the country;—could we not relieve them by having hospitals in the country? I do not say that we are overcrowded in that particular way. What I mean is that we have a larger number of applicants for admission than we have room for, and sometimes patients are delayed in being admitted from seven to fourteen or twenty-one days in consequence of the want of room in the special departments. The gynecological and other departments are run upon to a large extent to obtain the services of special men. I do not know that there are any such men to be found outside of Sydney—in fact, they could not live in the country. In Great Britain, men who start this sort of work are maintained by it, and write books on it, and there they can carry out the views you are suggesting, but the towns outside of Sydney are too small to keep a man of that character.

420. Unless he was entirely paid by the Government? Well, it would be a large sum he would have to be paid. The incomes of these men are very considerable, and I do not think the Government would be willing to give more than a Minister's salary to a medical man.

421. With regard to the outdoor patients, they are all treated now in the buildings under the archway coming from the street? Yes.

422. Did they not treat them at one time in a building in the Domain? Yes.

423. Do you think it would be a better arrangement to have a building out there? I should be most happy to adopt that suggestion.

424. Instead of having all these people gathered in Macquarie-street? It was suggested some time ago that a portion of the Domain, at the rear of the hospital, under certain circumstances and certain conditions, should be given to the hospital; that was in connection with the exhibition.

425. Do you mean where the shed was? Yes; right back to the road, and a new road was to be made at the other side. We would gladly accept that, because it would relieve us of a great difficulty in connection with the hospital work. If we had three-quarters of an acre given to us in that way we could have the outdoor department entirely separate from the indoor department. We could also make arrangements in connection with the Dentistry School and the laundry, and we could make the hospital as complete of its kind as any in the world.

426. There was an objection to giving up the people's rights? No. I thought you would know all about this subject.

427. I know there was nothing definite; it was only a proposal? It was only a proposal. We would gladly accept it. It would relieve us of all the difficulties in connection with the management of the institution.

428. What I mean is, could you not have a building facing the Domain in your own ground? No; we could not interfere with the air-space there. When I mentioned the laundry, I suggested that it should be only a one-storey building, no higher than the present wall at the back of building, so that the air-space and the breezes from the Domain could not be interfered with. It would be impossible to raise a further structure there.

429. You could not, if you put another storey on the building, add anything more to the ground? No; but if we are to have further bed accommodation we must have another storey.

430. There is not a sufficient area in the grounds to put up more buildings? No medical man would sanction such a thing for a moment, except in the way suggested.

431. The ground that you want is the land on which the museum is built? Exactly; the road was to be put on the other side, and the proposal was that we were to get about 1 acre.

432. *Dr. Manning.*] I see that you have 318 beds in the hospital, and the average number filled last year was 292, leaving 26 beds on the average vacant? Yes.

433. So that the pressure on the hospital space has not been so very extreme? That is the general average for the year; but the daily and weekly averages are quite different. On some occasions when I have gone through the institution there have not been ten spare beds; but we consider it a matter of duty to the public to keep a few spare beds.

434. You said that the children would be better in a separate institution;—why are they taken in, then, considering that there is a separate institution? Because I suppose people prefer, first of all, certain medical attendance—the attendance of certain men of reputation. In the next place, we take them in if there are spare beds in that particular department. We have always had a children's department; and there is also the fact that the accommodation at the Children's Hospital is always pretty well occupied.

435. The main object of the Sydney Hospital is the treatment of accidents and urgent cases? Certainly that object has been kept in view during the whole of its history. It cannot be anything else.

436. Something has been said about Moorcliff;—do you not think it is a very out-of-the-way place for students? The students generally take that branch of their subject when the lectures are not on.

437. Can you tell us the cost of the erection of a particular bed at the Sydney Hospital? I could not without I had the figures before me. I will see that it is prepared for you.

438. *President.*] In reference to the convenience of students, you said it was preferable to have a new hospital in Sydney to having it in a country district;—if a large hospital were built in the country would not that advantage be lost? It would be, especially where there was ophthalmic training and training in midwifery. I do not think students would go 200 miles from Sydney to obtain the information. I do not think that a hospital so distant from Sydney would be of any use to students at all.

439. In reply to Mr. Walker you said that Moorcliff is not too large? No, I am sure it is not too large.

440. There are sixty-eight beds at Moorcliff, I believe? Yes.

441. There are four honorary officers? Yes, four ophthalmic officers.

442. Is that a large staff? Well, the question may be looked at from different standpoints. The Board have looked upon it from different standpoints. In the gynecological department we have only two medical officers, and we have endeavoured to persuade the medical staff of the institution to allow us to appoint two others to that department in order that the work may be more efficiently carried out; but they have not seen their way to agree with us. I am sure that there are not too many ophthalmic officers. If the other departments were put on the same footing it might be advantageous to the public. In regard to work of that sort, it is a great mistake both for the medical men and the population that the work should not receive proper attention. It does harm to the medical man, and it does no good to the patient. I am sure that our ophthalmic department is not over-officered, and those gentlemen give their services gratuitously. It is altogether a great advantage to the public.

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443. Suppose that you got an extension to the hospital by the granting of that extra land, would you consider it desirable to transfer the ophthalmic patients to the main hospital? We would do it instantly, and then suggest that the Government should resume Moorcliff for a lock hospital. It is best adapted, in my opinion, for an Ophthalmic Hospital; but the ophthalmic patients being provided for at the Sydney Hospital, we should advise the Government to resume the site as it is so admirably adapted for medical purposes. Its isolation is an advantage.

444. You said the site was a good one? A very good one.

445. The only drawback is the want of accommodation? The want of accommodation and the dilapidated and antique character of the whole structure.

446. *Mr. Walker.*] Is there room for the extension of the buildings at Moorcliff? Yes, we have two houses there.

447. What is the extent of the ground? I think, there must be nearly half an acre altogether.

448. There is an out-patients department also? Yes.

449. Does the institution attract many patients from the other colonies? Yes; they come from Queensland, from remote parts of the interior, and even from parts of Victoria. I could not tell you all the places that they come from, but we receive letters of thanks for services rendered from persons after recovery, and those letters come from very remote parts.

450. Why do you suppose they come? On account of the superior skill of the gentlemen attached to the Institution. I suppose they are the best men in the Southern Hemisphere.

451. They are rented buildings? Yes, the Government pays the rent.

452. *President.*] There is a dispensary in Regent-street? Yes, we have that dispensary there, and we have also a piece of land bequeathed to us on the South Head Road by the late Mr. Perry for the purposes of another dispensary. There is a division of opinion in our Board in connection with the matter. Some members of the Board think it is undesirable that we should deal with anything outside Sydney Hospital and Moorcliff; that we should not take up dispensary work. They have, therefore, suggested to the Government that we should give up the dispensary in Regent-street, but the Government after consideration of the matter, and especially on the representation of the gentlemen who represent in Parliament the districts concerned, have paid the rent and asked us to continue our services in connection with the Regent-street dispensary. We have not had sufficient funds to carry out the terms of Mr. Perry's bequest to build on the land. It is a matter for consideration whether we should continue or not. The continuance of the dispensary at Regent-street depends upon the will of the Government.

453. I understand that, whether it is carried on by the hospital authorities or not, some provision of the kind will have to be made? It is very questionable. I have gone to Regent-street on many occasions and examined the books and seen the patients that go there, and I doubt whether it would not be far better if those patients came to the out-door department at the Sydney Hospital. Nine-tenths of them are cases which could come without any difficulty at all, and it is questionable whether the other tenth ought to get hospital treatment—whether they should not pay for treatment, and whether they should be treated at a public dispensary at all. A dispensary, with a person attached to go and visit the poor who are unable to pay for attendance, would be a valuable thing. Therefore, it was suggested some years ago that the plan adopted in large cities in England would be more advantageous than this plan, viz., that the city should be divided into districts, each with a medical man attached; that the local dispensary should be paid a certain sum annually, and that the person to visit the sick should be the poor-doctor of the district. It would be a great saving to the country, and the poor would be much better attended than they are at present. As it is now, I do not know that any provision of a satisfactory nature is made for the attendance of poor sick people who are unable to go to the institution.

454. The number of out-patients appears to be increasing;—there are 92,000 attendances, or an increase of 9,000 in 1898 over 1897? Of course it is to be remembered that these are attendances merely—not cases—(Report, p. 11). I attribute the increase not so much to the increase in population, although that will affect the question to some extent, as to the fact that the medical gentlemen who attend there are gentlemen of repute, consequently, when any person feels that he is not getting satisfactory treatment other ways, he rushes to the dispensary to get advice.

455. There is an increase in the number of special departments—the gynæcological, and the eye, ear, nose, throat, and skin? Yes.

456. You have already said that you attach great importance to the gynæcological department, and that it should be better officered? I do not say better officered, but more largely. The gentlemen who have the management of it say that they can deal with the whole of the cases that come before them. They are quite satisfied; they do not want the additional help which the Board have suggested from time to time. The Board look at it from a different stand-point. It is a very important department indeed.

457. We have already dealt with the eye, ear, nose, throat, and skin department;—are all those special departments necessary? Oh, very necessary. To show how important they are, I suggested to our Board that we should represent to the Prince Alfred Hospital that the ear, nose, throat, and skin cases were becoming so numerous, that we should either have to increase the staff, or do something else, and we suggested that, as they had no department of that kind in their institution, it would be well to establish one to relieve us, and they have done so within the last few months.

458. That would ease you off? It has relieved us considerably; people come from all the southern districts to be treated by the special men connected with the department.

459. Are there not a large number of special cases treated at the hospital which might be treated privately? It is a very difficult question to answer. In those special departments the medical gentlemen are supposed to depend entirely on their special work, and they charge a special fee, which some people are not able to pay. The specialist may require 10, 15, 50, or 60 guineas in a case, but patients who cannot afford to pay those fees will endeavour to get the services of the same gentleman in another way. There are difficulties in connection with the department. We have had cases brought under our consideration, in regard to which we really do not know how to act. I cannot give an exact reply to that question.

460. I should fancy that it must be liable to prejudice the interests of the specialists? The only course for these cases is if they do not wish to come into the hospital to go under some gentleman of less repute who charges a smaller fee, but what they endeavour to do is, by means of the hospital, to get under the gentleman

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gentleman who charges high fees outside; hence a number of these gentlemen have established small hospitals of their own so as to adapt themselves a little more to the circumstances of the case.

461. Is the charge of 1s. to out-patients continued? Yes; it is in force at the present moment.

462. What inquiries are made as regards the means of patients who are admitted? Well, at the present time we are considering the by-laws of the institution. Some of the by-laws provide that a subscriber shall recommend patients. When a subscriber's order comes we generally take the patient in without further investigation until inquiry is made into all the circumstances of the case. The by-laws about to be suggested for adoption by the Board will require that every case shall be taken in and dealt with at once, subject to medical examination, and that the medical examination shall determine whether the patient shall be admitted or not. That is a complete reversal of the practice that has been adopted at the Sydney Hospital ever since its institution. The Prince Alfred Hospital adopts a similar rule. If it is adopted the practice will be as follows: When a patient is brought to the institution he will be examined immediately by a medical man, and if the medical man considers that it is a suitable case for admission he will be admitted forthwith. As soon as he is in his bed and arrangements have been made, all the particulars in connection with him will be then investigated and a return prepared. Then he will be asked to pay according to the rules of the institution, or not to pay, as the case may be. That is the new practice that will be followed.

463. That should tend to make the inquiry much more effective, if done at leisure? It will be done at leisure, and it avoids the horrible practice of asking a poor man who has met with a serious accident and may be in great pain questions that are perfectly superfluous until he has received medical treatment.

464. That is the course adopted with regard to in-patients? We have given instructions for it to be adopted with regard to in-patients. With regard to outdoor-patients, there is a person specifically appointed to examine and deal with them to the best of his ability; but first of all the numbers are great, and next the appreciation of a person's position is so difficult under the circumstances. A person may consider himself very poor, and may say that he is, and yet he may not be so. The statements made, I believe, are often delusive; however, the best is done that can be done under the circumstances. Subscribers in their orders have said that a person was in impoverished circumstances, and not able to pay for medical attendance; but I am sorry to say that when these have been sent even by Magistrates, Members of Parliament, and above all by Clergymen, they have been found to be not exactly in accordance with fact.

465. The number of operations as stated have been in 1896, 1,703; in 1897, 1,954; in 1898, 1,941; can you account for the increase? No; it is just an ordinary fluctuation.

466. How long does the training of the nurses take? The course takes three years.

467. And the lectures? The lectures are given every year by the honorary physician, the honorary surgeons, the resident medical officer, by the matron, and by her assistants.

468. Is the nursing staff sufficient? We should be glad to have a few more nurses if we had accommodation for them. We have a great number of applications for admission, and we endeavour, as far as we can, to get their claims satisfied, but with the limited accommodation in the Nightingale Wing it is impossible for us to increase the staff, although it would be very desirable indeed.

469. We may infer from that that the nurses have more to do than they ought to have? I do not think they have, but it would be more satisfactory to have an ample supply.

470. Do the nurses complain about their work? No; never.

471. You say you have many applications for positions? Yes.

472. What is the number of the nurses? Thirty-two. There is 1 matron, 1 sub-matron, 5 sisters, 32 nurses, and 21 probationers, making a total of 65.

473. How many resident medical officers? Nine.

474. Is that a large number in comparison with the other hospitals? A comparison can hardly be instituted with hospitals elsewhere. Most of those hospitals in Great Britain have a medical school attached, and the medical students attend in their last years. Sometimes they have clinical clerks. They have a rotation of medical officers in connection with indoor work. They have resident medical officers, and they do a great deal of work.

475. How many members of the Board are there? When I was a Member of the Legislative Assembly I got the present Act passed governing the Sydney Hospital, and in it provision was made for a President, two or more Vice-Presidents, Honorary Treasurer, ten gentlemen to represent the Government on the Board, ten to represent the subscribers, and two gentlemen to represent the honorary medical officers, that is twenty-two members of the Board and four honorary officers.

476. Do the representatives of the Government take a very active part in the management? Yes; no complaint is to be made in regard to the attendance of any of the medical gentlemen. One complaint was made in regard to one gentleman representing the Government some time ago, but I think that has been remedied. With regard to subscribers' representatives, the difficulty is to find out who are to retire according to the rules at the end of the year. Sometimes a ballot has to be taken, the attendances have been so regular.

477. *Mr. Barling.*] About the general management,—you gave us some very valuable evidence when you were before us in connection with some other branch of this inquiry. Since then, referring to some documents which I have already quoted from, I see that Dr. MacLaurin made these remarks, which agree with what you said:—

As to administration, it is clear to me that great gain would result to the public from bringing the medical charitable institutions of the city and suburbs under one controlling Board. The services could be carried out with greater economy, there would be an absence of competition between different institutions, and patients could be sent at once to the particular hospitals for which their cases were suited.

I think it will be very useful to us if you can give us anything further on that subject especially dealing with the hospitals? I quite concur in that statement, and to a large extent I have been instrumental in carrying the principle involved into effect. During the last three or four weeks the Prince Alfred Hospital Board and the Sydney Hospital Board have met in order to determine certain questions connected with both institutions, in other words they are working harmoniously together in regard more especially to the best plan of raising funds for the support of the institution. For this purpose they are going to have a conjoint ball for both institutions; the money to be divided equally between them. So they are really carrying out this principle to some extent. Of course the question as to the size of the controlling Board,

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Board, and the question of the Board having distinctive control over both institutions is another matter altogether. I think it would be a great mistake in any way to stifle the philanthropic inclinations of gentlemen on those different Boards who give their assistance freely. It would be a great mistake in the public interest to reduce the number of the members of the Board too much, and so long as the Board is manageable, it is as well to have a large one, so that as great an interest as possible may be taken in the work by the public, whom those gentlemen represent. From what I am stating, you will infer, therefore, that I do not think it would be a good thing if both those institutions were placed under one management, unless both Boards could be amalgamated, and the number of members not greatly diminished. I should be very glad if the hospitals were placed under one Board.

478. I should gather that Dr. MacLaurin does not contemplate reducing the number of members of the Board? No; but that would follow. You have at the Prince Alfred Hospital a Board consisting of twenty gentlemen, and the Sydney Hospital has a Board of twenty; that would be forty—a small House of Parliament in fact. It would lead to all sorts of discussions; the number of members would have to be limited very considerably.

479. I do not think that Dr. MacLaurin means even that; I think he must mean that over the subsidised institution there should be a controlling Board composed of, say, three gentlemen to whom these subsidies could be paid, and they would make inquiries to see that there was no overlapping and no defect in the management before the subsidies were handed over to the institution. That was your idea when you gave evidence before? I am sure Dr. MacLaurin had no such view when he made the statement contained in this paper. He says:—

As to administration, it is clear to me that great gain would result to the public from bringing the medical charitable institutions of the city and suburbs under one controlling Board. The service would be carried out with greater economy; there would be an absence of competition between different institutions, and patients could be sent at once to the particular hospital for which their cases were suited. In order that the responsibility of the Directors should be real and not merely nominal, I should suggest that their number should be not less than five nor more than nine.

we should have forty members for the two hospitals.

480. Am I right in supposing that your idea was that there should be a Board such as I mention, and which Dr. MacLaurin does not refer to there? Yes; my idea was this—and I hold it still—that all the charitable institutions, hospitals, benevolent asylums, &c., should be placed under either a small Board or under one person. This one person or small Board of two, three, or five, should then have the control of all the subsidies, but when it comes to directing the institution itself, these three persons should be superior altogether to the Board of the institution. In other words, we would have these three persons, or one person, whichever it might be, looking after the subsidies and the local Boards managing their own local matters. I do not think that Dr. MacLaurin had quite that idea.

481. Referring to the question as to the nurses again,—are you quite satisfied that the nurses do not complain that they are overworked; I have an idea that there are some complaints, although I cannot specify any? Of course this occurs. A person applies to become a probationer, and when she has been there a fortnight or three weeks a report is brought before the house committee that Miss So-and-so is a person of excellent character, but she is hardly suited to the work of a nurse. An inquiry is made by the house committee, and it turns out that she is not strong enough to do the work, and, therefore, she is allowed to leave. But after a nurse has been one year in the institution and has passed the probationer's stage, and got acquainted with the work that she has to do she rarely makes any complaint. I have never heard a whisper or a murmur in connection with their work or anything else. It is only in the probationary stage, and particularly during the first month, that any difficulty happens.

482. Do you think it is desirable that nurses on probation should go through the hard manual labour which they are called upon to do during the first year? I have always held the opinion that if a young woman is to be a nurse she ought to be thoroughly trained and that she ought to begin from the very lowest stage. I do not think it is desirable to make them scrubbers, and, as a matter of fact, we keep wardsmen to do that work; but that they should do everything connected with the nursing department, however low and degrading it may be, is absolutely essential in connection with their training. This is why any trouble of the kind you refer to that does occur occurs in the first stage of their probation.

483. You say that the nurses are exempt from the scrubbing? I understand so. We give instructions to the matron that these probationers should be relieved of that sort of work—of manual work of a degrading character.

484. Such as scrubbing floors? I think it is very desirable that they should even do that. If they go into a poor man's house they ought to know how to clean a floor or to clean a pan. I think that is essential; but I leave these matters entirely to the discretion of the matron. If she is fit for her position she knows how far this work shall be carried out by the nurses. The Board never interferes with the matron in matters of that kind; and we have never had any complaints about the degrading character of the work. We have had probationers, as I have said before, who said the work was too hard, or made other excuses; though, no doubt, that was at the bottom of it, and they have left within the first month. That sort of thing must necessarily occur. We have a great many applications. I dare say that there are more than 100 applications on the list now to get places in the Sydney Hospital. We do not encourage favouritism, nor do we make any special selection. We take these nurses in the order of their applications, and it follows, of course, that some are quite unsuitable for a position of the kind; therefore such cases as you have referred to occur. I am sure, however, that there are not half a dozen in a year.

485. In fact, it has the effect of a good sifting process? Certainly it sifts out those who are unfit. A well-educated young woman going in there, who likes her calling, would never object to the scrubbing or to the cleaning of dishes. There are nine wardsmen to do the rough, coarse work, including the scrubbing.

486. *Dr. Manning.*] You have so many applicants for the position of nurse that it takes nearly two years after an application is made before a person can get on the staff? Yes; that is about the average.

487. It is a position that is very much sought after? It has for years past been very much sought after.

488. It is advisable to put the nurses to hard work to weed out the incapables who would give trouble in a private house afterwards? Yes; and not only that but also to test their character.

489. Unless some of them were weeded out they would be a trouble in a private house instead of a help? Certainly.

490. You have said that the ophthalmic hospital attracts patients from the other colonies, do you not think that that is rather inadvisable considering that many of them will be paupers and will remain in the Colony?

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Colony? A man comes who requires an operation for cataract and he is a pauper;—how can he be refused wherever he comes from?

491. Is it a good thing to advertise it? I am not really advertising it. If you look at the statistics you will see how it occurs. They come, and the hospital is there to relieve them wherever they come from.

492. Can you give the cost of the out-patients? I could not.

493. Do you think the charge of 1s. each for out-patients advisable? I do.

494. On what grounds? It may be said that it encourages people to come who could pay a great deal more than 1s. It may be said that if they pay 1s. they think they are entitled to more than a shilling's worth. But that sort of thing was done before the shilling was charged at all. It is a kind of check, but we never ask for a shilling from a person who is not able to pay. These shillings cover the cost of the bottles, and they amount to nearly £600 a year, and that is a great consideration.

495. You said that in your opinion it is advisable that some dispensary system should be established in Sydney? Yes; very advisable.

496. And you think that if people were treated at their own homes by a dispensary medical officer it would save the admission of a great many people into the hospital? I have no doubt about that. Our former experience proves that. The Sydney Hospital at one time, instead of having the present system, had honorary physicians, honorary surgeons, and dispensary surgeons. There was a dispensary surgeon attached to each ward at the city, and those dispensary surgeons gave orders for medicines to the poor people whom they visited and the medicines were got at the Sydney Hospital. It was a great boon. Now if a person is ill and not able to go to a doctor he is put into a cab and taken to the hospital at once. Most of such people would remain at home and it would save the hospital a considerable amount in regard to maintenance, if we still had the old system. Some of these cases are cases that should go to other institutions, to Little Bay or to Parramatta or one of the other places, but they are all brought to the Sydney or the Prince Alfred Hospitals.

497. Are you aware that since the dispensary surgeons have been done away with, a great deal more work has fallen upon the police surgeon? Yes.

498. That he is not able to find time to visit the patients at their own homes, and orders their admission to the hospital, whereas, if there were a dispensary surgeon they would be treated in their own homes? I quite agree with that.

499. Has the question of provident dispensaries engaged your attention? Yes; there are a number of them in Sydney, and in some of the more important cases they are attended by a number of medical gentlemen. Those medical men engage to attend persons for a certain sum and the medicines are prepared at the central institution. There are at least three or four of these places.

500. These are almost all in connection with the different Friendly Societies are they not? No. What I am speaking of are outside the Friendly Societies altogether. I do not know that any special advantage, as far as hospital, work is concerned, arises from them. At any rate they have made no difference to the hospital, as you will see by the statistics. They have given no relief to the hospital. The only way in which they have given relief has been to persons who wish to select a doctor out of a certain number and to get him at a reduced payment for both attendances and medicine. That is the only result that I can see. In other words, it is an extension of the Friendly Societies' business. With regard to clubs and lodges, I think they are in much the same state as they have always been. There is no relief to the hospitals in connection with them.

501. I gather from the former part of your evidence that you are of opinion that the inquiry as to the means possessed by patients is at present inadequate? Yes, there is great difficulty in obtaining accurate accounts.

502. Do you think that a more accurate system might be inaugurated? It is very difficult to suggest anything. Care has been taken to make a strict examination into these matters; but it has been sometimes found after a patient has come in as a pauper, on a Government order, and has died, that he had a small banking account. Well, no one could discover that unless he chose to tell.

503. Is there any system of checking the inquiries made at the hospital, by visiting the homes of the patients? I do not think so. We should require a special officer for that.

504. A special officer would be necessary? Yes; and we have overdrawn considerably already at the Bank.

505. *President.*] What is the cost per bed in the hospital? £61 10s. I should like to explain that it is very difficult to arrive at the exact cost, per bed, of any patient in a hospital, because you make your calculations on various bases. For example, at the Sydney Hospital we have been put to considerable expense in connection with the building, the Government supplying most of the money; and the question is whether the interest on that money should be included in the calculation.

506. *Dr. Manning.*] That never is? Putting that aside, the next question that arises is, what is the expenditure of the hospital for the year *pro rata* in connection with the indoor patients. If it is taken purely on that basis, I understand that the cost is about £61 10s. per annum.

507. *President.*] Is that the outgo in reference to each patient? No, in reference to each bed.

508. *Mr. Walker.*] That does not take in money advanced by the Government? No, it is only the cost to the institution for the maintenance of that bed during the year.

509. Nothing but the actual cost of maintenance? The actual cost of maintenance.

510. *President.*] What are the sources of income to the hospital? First of all, the subscriptions of the public; next we have the Hospital Sunday Fund; next the subsidy from the Government for the maintenance of patients at the usual rate of £ per £. Then the Government pays for the maintenance of patients in the institution, and gives us also further assistance in the shape of rent for the Moorcliff Hospital and the branch dispensary. We have fees from paying patients, fees from out-patients, fees from pupils, and fees for the ambulance travelling; then there is interest on investments. Of course we have occasionally also legacies, the interest on which is available for the institution.

511. You say that the Government pay 3s. a head for patients sent by them? Yes.

512. Is that sufficient? No; it does not cover the expenses. At that meeting of the Directors of the Prince Alfred and the Sydney Hospitals, it was decided that we should wait upon the Government together, and ask them to increase the amount slightly, and so relieve us of some of the difficulty in connection with the finances.

513. What is proposed? We are going to ask the Government to give us an additional shilling—to make it 4s. instead of 3s.

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514. The average cost per diem is 3s. 8d., is it not? Yes; we are going to ask them to give us 4d. more than that.
515. You take paying patients? Yes; patients who are able to pay.
516. The patients pay £1 or 24s. a week;—what are your views on that? I think we make a mistake, and we are going to remedy it. We only ask 1 guinea a week, but there are some patients who could just as easily pay 5 guineas. At the Prince Alfred Hospital they have separate wards where patients are accommodated in a private way, and with considerable advantage in regard to domestic management, and they pay larger sums for the use of those particular rooms. We have no such accommodation; that is why we always charge 1 guinea a week. I do not know whether it is desirable in a public institution like Sydney Hospital that there should be any distinction drawn; but if there were any distinction we ought to give better accommodation for those who can pay larger sums of money. At the Prince Alfred Hospital the doctors get a share, which they donate to the hospital, and thus become subscribers.
517. *President.*] Is the hospital relief much abused? I do not think so. Of course it is abused as everything good is abused, but I do not think it is abused to the extent that people imagine. We have made inquiries into the matter. The Government at one time lent us a detective to go round and inquire into all the cases, and we had a report on the subject. It was said that people came to the hospital in carriages to get outdoor relief, that persons came dressed in a manner in which persons requiring assistance would not be dressed, and that others came loaded with jewellery. We had a thorough investigation, but the thing was not found to be so glaring as was anticipated. There were cases of abuse, no doubt, but it is so difficult unless the institution employs detectives to discover them.
518. For operations, I believe, certain small fees are charged? No; I do not think that any fees are charged.
519. *Dr. Manning.*] You get some money handed over to you by clubs, Benefit Societies, workshops, and firms? Yes.
520. Do you give them any special privileges or advantages? The only persons to whom we give any special advantage are the railway people. Application has been made by the Engineers' Association and by other bodies to come under the same rule as those connected with the Railway Department, but we have in every case refused. In all probability, as a result of that meeting the other day of the Directors of both institutions, the railway people will be deprived of this privilege too.
521. What privileges do they derive? They are admitted at once without any investigation. No charge is made in connection with the case, but 15s. a week is paid. Then at the end of the year, in proportion to the number of patients treated, the balance of the fund collected by the railway employees is divided between the Sydney and the Prince Alfred Hospitals.
522. *Mr. Barling.*] Referring again to the control of the Government institutions by Government officers, I suppose your idea is that it would have to be very carefully brought about, as it might have the effect of drying up private charity? Yes; that is the reason why I say that if you were to diminish the number of members of the Board it would cause a considerable diminution in the contributions. Take the Sydney Hospital. I know members on the Board of that hospital who have contributed as much as £50, and £200, and various other sums, and they use their influence with persons who are in a position to bequeath money to the hospital to induce them to do so. Let me state my own case; you will find two or three bequests on the list that amount to about £15,000. I have suggested to people that they should divide their money between the Sydney Hospital and the Deaf and Dumb Institution. There is the case of Mrs. Fox, who left £4,000 or £5,000. Another lady left £1,750, and I could pick out two or three others who left their money in this way for the benefit of the community.
523. Then the greatest care will have to be exercised in making the control so that it will not have the effect of curtailing private charity? Certainly; everything that can be done should be done to interest the public in the institution. What it is necessary to show is that it is for their own benefit that the institutions should be maintained, and that the persons who are regulating them are persons in whom the people have confidence.
524. While it is desirable to have this control, it should be so carefully guarded that it will not have the effect of preventing people from taking an interest in those institutions? Yes.
525. We were speaking about paupers coming from other colonies and being treated here at the expense of this Colony; of course, we must agree that you cannot reject an individual who comes to you suffering from disease? We are so full of the idea of Federation that of course we could not.
526. But would it not be desirable to have a law passed by which the influx of paupers from other countries could be regulated? That is done in some of the other colonies.
527. What would your idea be? I really do not know.
528. *Mr. Walker.*] There is no law on the subject in Victoria, except as regards criminals? Of course I do not regard these people in the same light as coloured brethren.
529. *Mr. Barling.*] Do you think there ought to be reciprocity—that if we receive some paupers from other colonies they will receive some of ours? Yes, certainly. I was under the impression that there was an Act in force in Victoria dealing with the matter, because not long ago the Benevolent Asylum sent some people over to Victoria, and they were returned.
530. It is stated that owing to the more favourable climatic conditions, a large number of phthisis cases come from Victoria, and a large number of ophthalmic cases come from Queensland? Quite so.
531. Do you not think we should make some arrangement by which the other colonies would contribute something towards the cost of those cases? With regard to receiving ophthalmic cases from Queensland, I may state that we send many phthisical cases to Queensland. I have sent dozens there. With Federation once accomplished there would be no necessity for any enactment in regard to the matter at all.
532. The question has been raised as to the unfairness of taking patients in that can afford to pay, because, to a certain extent, it is unjust to private practitioners; but there are a large number of cases amongst the clerical class who get from £150 to £300 a year who really cannot afford to go to a private hospital, but who can afford to pay sufficient to defray the actual cost of their treatment in hospitals;—therefore, is it not desirable, for the benefit of that class, to allow such a practice to continue? So long as it is within proper limitation it is very desirable. There are certain cases for which provision of that kind ought to be made. There are cases in which the people are able to pay something, but they are not able to pay the full amount, and they have no friends to look after them. But a great deal of difficulty has been done away with by the practice in Sydney and elsewhere of having private hospitals; private hospitals under

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under the management of medical gentlemen, where medical men attend, and where they have well-trained nurses. There are a large number of them in Sydney, and they, to a great extent, provide for such cases as you refer to. Ten years ago the argument would have been very forcible in favour of having private wards for that class of patients in the public hospitals, but in Sydney now there is ample provision in the cottage homes and private hospitals conducted by medical men and trained nurses.

533. But would not the charges be prohibitive? No. I have made inquiries as to the charges. In some of those places the charges are most reasonable for maintenance and attendance. The only difficulty is in regard to the charge for medical attendance. The charge made in the Prince Alfred Hospital for private patients is, I think, about equal.

534. A case came under my own observation some time ago—there was a case requiring medical treatment, and a doctor was seen on the subject, and he said, "Before I can do anything I must have £200." Fortunately, the money could be paid; but how many clerks are there with £200 a year who could pay that? Some of these private hospitals are well-regulated institutions, under leading practitioners, but the cost would not be anything like what you have mentioned, except in very rare cases indeed. The cost in ordinary cases would not be greater than what is charged at the Prince Alfred Hospital. There has been a complete change within the last five or six years in Sydney. That has all occurred since the new system of trained nurses has been instituted. So excellently are some of these places conducted under those medical gentlemen that from one of them the late Matron of the Sydney Hospital was taken. She was matron of one of those private institutions before she went to the Sydney Hospital. That will show you how well they are managed, and how perfect the system has become.

535. Do you think that these private hospitals should be under control? The Government gives nothing towards their maintenance. They are private undertakings.

536. I mean for the protection of the people? I really do not think the thing has gone so far as to require anything of the kind at present, but if it goes much further, then, undoubtedly, it will be necessary to have some kind of inspection.

537. Should they be licensed? Yes; licensing would meet the case, I think.

538. *Mr. Walker.*] You said there were some cases of imposition with regard to out-patients;—could you give us any information as to the extent of it? No; I could not give any information on that point. I believe that the best information is in the Colonial Secretary's Office. There are some excellent reports there from the detective I have mentioned. You have all the particulars—the names of the persons and everything connected with it. The Government only sent to us a general statement.

539. I understood you to say that you had made inquiries? Well, our inquiry was to a large extent superseded when the Colonial Secretary's Department appointed the Director of Charities to investigate the matter through a detective. We gave up the investigation then, and we received the result from the Colonial Secretary's Office.

540. That is many years ago? It must be within five years.

541. I am aware of that inquiry; but I understood you to say that you had, on your own responsibility, made inquiries? We did. We made an investigation, and we found that the information obtained was sufficiently serious for us to ask the Government to take action. We found that there were some people who were imposing upon the institution. Then, moved by that, we made a representation to the Government. The Government appointed Mr. Maxted, who engaged a detective, who reported on the subject. I have read the reports, and they are now in the Colonial Secretary's Department.

542. I thought you said you had made inquiries and found that there was not any imposition? We found that it was not so serious as people imagined.

543. I understood that the committee had made inquiries of their own? They commenced it. Representations had been made by some medical officers to the effect that people, occasionally came to the hospital in buggies; that people came dressed remarkably well; that one person had pulled out a number of notes, and things like that. On these representations being made we wrote to the Colonial Secretary's Office for the necessary assistance.

544. *Dr. Manning.*] You approve of taking in paying patients to a certain extent at a guinea a week or even more? Yes.

545. Does not that mean the keeping out of more necessitous cases or the restriction of the accommodation for them? I think not. No preferences are given.

546. But if the wards are occupied by paying patients, beds will not be available for necessitous cases? No case is ever admitted into the institution unless the medical men say that that case ought to come in. It is not a question of money at all. You may say that a case could be treated in a person's own home; but if the doctor says, "No, you must come into the hospital," the patient is brought in at once.

547. *President.*] You mentioned the starting of suburban hospitals? Yes.

548. Those hospitals must have relieved you to a considerable extent? They have, because they have treated on the spur of the moment accident cases which have occurred in their neighbourhood; but they are more useful in cases of fevers, &c. They are very useful in that respect, because those fevers can be as well treated in a home as in a big building.

549. Have you any particular knowledge of how they are conducted? Yes.

550. And they are very useful? Yes; they are useful for ordinary cases.

551. Are they well managed? I should not like to express an opinion on that. Most of them are satisfactory, as far as I know.

552. Do the Convalescent Hospitals relieve you to any considerable extent? The Carrington, the Walker, and the Thirlmere Hospitals are a great boon. I have been connected with all those institutions. They have been of very great service indeed to our general hospitals. At the City Hospitals there is not a great deal of spare room, and when people are recovering it is well that they should go away from the hospital surroundings to where there is purer air.

553. The Sydney medical men give their services gratuitously? Yes.

554. In various country places the medical officers are paid? Yes.

555. Is there anything in the circumstances of the country hospitals that would account for the difference? Yes. I think that in the country they must have very great difficulty in making ends meet, and their time is very valuable. Sometimes medical men have to travel great distances in order to obtain a fee. I think it is desirable to keep up the payments as regards country practitioners who attend hospitals. They ought to be paid for their services, or to have a kind of retaining fee.



556. *Mr. Barling.*] Dr. Thompson gave us some evidence as to the large cost during the last year or two of the Coast Hospital, and one of the reasons for it which he gave us was the employment of students from the University—that they, by reason of their inexperience, often prescribed extras that were almost unnecessary, and unnecessarily increased the cost of management;—has anything of that sort come under your observation in regard to the Sydney Hospital? At this Hospital, I believe, they are beginning to treat a number of not exactly acute cases, but cases that require a great deal of medical attendance and an increased amount of nursing. The other matter, about the hospital students prescribing drugs of a costly nature is a thing of which we have no great experience. I imagine that these gentlemen are not students at all, but men who have passed their examinations, and are fully qualified.

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557. Yes, fully qualified; but they resort to medical comforts and are extravagant? With regard to the Sydney and Prince Alfred Hospitals, we have an honorary staff, and they control the whole matter. There may be something in what you say, because those young gentlemen cannot have had any large experience. They will take the lines laid down in books, and they do not know the distinction between the cost of medicines, which may have the same result whether they are dear or cheap; but I do not think it would make much difference. These young men go direct from the University. The plan adopted is that they are classified when they have passed. We get information that so-and-so has passed; the Prince Alfred Hospital selects so many, and we select so many, and they come to the institution to get their final training. It is a great advantage to the public. It is better than the old system. Every week we have a list of all the drugs supplied, and we see that extravagance is curtailed in this particular respect.

558. Is there any other information that you can give the Commission? I know what you want. You want from me a statement of what I think ought to be the future hospital management in this country, looking not only to its present condition, but also to the future requirements of the Colony. Well, it is a very large question. It is one that I should naturally be brought into connection with, and to which I should like to give a great deal of thought before I say more than I have said to-day. What I said a great many years ago has been carried out. We have the Sydney Hospital and the Little Bay Hospital as a relieving place. It would be a great mistake to put another hospital anywhere except in the middle of a dense population. It would be a great mistake to enlarge the present hospital buildings to any great extent. I think that 300 beds are quite sufficient for any hospital. Of course if you look to economy merely you may have a hospital with 1,000 beds. That has been done, but it is a great mistake. Anyone who knows anything about St. Thomas's and other large hospitals in London will know what an error that has been. This question requires a lot of consideration.

559. *Mr. Powell.*] I understand you to say that you object to an additional storey being added to the present building? I say I would prefer having additional accommodation in the Domain; but if increased accommodation is to be on the present site, then it must be in the shape of putting on an additional storey, according to the original arrangement in connection with the plans that were instituted by the Board. It is not so satisfactory to have a lofty building for a hospital as to have one of two or three storeys. With the same conditions I would prefer to have the increased accommodation on a lower floor. But if it is a matter of necessity to do so, we must take it in the shape of an additional storey to the present building.

MONDAY, 1 MAY, 1899.

[The Commission met at the Offices of the Public Service Board, at 2:30 p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).

F. NORTON MANNING, Esq., M.D. |

J. BARLING, Esq., J.P.

J. POWELL, Esq., J.P.

CRITCHETT WALKER, Esq., C.M.G.

James Ewan sworn and examined:—

560. *President.*] You are Honorary Treasurer to the Sydney Hospital? Yes; I have been since 1891.

J. Ewan.

561. *Dr. Manning.*] Will you tell us from what sources the hospital derives its income, and the amount from each source for 1898? The income for 1898 was: Subscriptions by collectors, £1,752; subscriptions direct, £242; Hospital Saturday Fund, £490; these sums making a total of £2,484. We received in medical officers' fees £75; then we received in Government subsidy, £ per £, £2,370; for pauper patients from the Government, £8,056; from the Government for the maintenance of Regent-street Dispensary, £700; rent for Moorecliff, £350; fees from paying patients, £1,633; from pupils, £29 18s.; out-patients, £662; ambulance fees, £102; interest on investment, £1,053.

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562. What was your total income for that year? £17,921.

563. Of which £11,777 was contributed by the Government? I think that is correct.

564. The Government aid in the year 1898 was less than usual, because you had only three-fourths of the subsidy? Yes; there is one quarter owing.

565. The Government aid for 1896 was £15,469, and for 1897 £15,262? I dare say that is correct.

566. Does the Government pay the entire cost of the Regent-street Dispensary? Yes; the full cost.

567. Not only the rent, but also the cost of the medicines? The cost altogether, including drugs and attendance, £700, the Government paid all.

568. Is that the total cost? It was what we asked for as the estimated cost.

569. There is no gain or loss to the hospital? I would not be quite certain that the £700 covers the cost.

570. The £350 for Moorecliff is for rent only? Yes. It is the actual amount.

571. During 1898, there was a grant of £300 for the pathological building? Yes, to complete it. There is still a small amount owing.

572. Then the amount obtained by subscriptions is very small in comparison with the total income? It is.

573. Will you tell us what is the method of obtaining subscriptions? We have one man attending solely to that work. He receives £156 a year salary and a commission of 2½ per cent. upon the old subscriptions, and 5 per cent. upon the new ones. He gives the whole of his time and attention to the work of the

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- the hospital, principally collecting, though he does other work as well. Then, by way of supplementing subscriptions, we have what we call sports meetings. The last was held the year before last—the Chinese carnival. We got £220 by that.
574. Have the subscriptions increased or diminished during the last few years? They have diminished, chiefly owing to the Hospital Saturday Fund. We have taken a great many subscriptions from the working classes—what they call the industrial classes—but a great many people make it an excuse that they give to the Hospital Saturday Fund, so that they cannot give to us direct. The circumstances of the people for the last few years have not been so good as previously, and these two things are, to a certain extent, accountable for the diminution in the subscriptions.
575. You do not attribute it to any falling-off in the exertions of the collectors? None whatever. Very often we make special efforts. We write home to London to old colonists; we did that a couple of years ago, and we got three responses from about thirty-five people to whom we wrote. We wrote to the large graziers; we sent away sixty letters, and we got two answers. We do all we can to get money from the public.
576. It may be assumed that the large graziers subscribe to their local hospitals? Yes, no doubt; but a great many cases come from the country to the city that cannot be dealt with in the country.
577. You have given us the amount of money received from patients;—can you give us a return showing in what sums this money was received? They vary from 10s. up to £2 2s. a week.
578. Do you not take anything less than 10s.? There were ten patients who paid 2s. 6d. each, seventy-two who paid 5s. each, eighteen who paid 7s. 6d. each, 115 who paid 10s. each, twenty-one who paid 15s. each, one who paid 17s. 6d., 101 who paid £1 1s. each, three who paid 25s. each, four who paid £1 10s. each, thirteen who paid £2 2s. each; five who paid 28s. each; one who paid £2 10s.; and one who paid £5. These were all payments made per week during the last eight months.
579. Then you do not appear to receive smaller sums than 2s. 6d. a week from your out-patients? The figures I have quoted refer to in-door patients. With regard to out-door patients we have a system of registration. Each patient is registered and is supposed to pay 1s., if he can pay at all. We have received during the year a total of £660 in shillings.
580. Who attends to this business? We have a separate clerk who registers people, and he also assists with the Regent-street Dispensary.
581. Do you take any smaller sums than 1s.? They have a donation box into which they can drop 6d. or 3d.
582. What inquiries do you make as to the ability of the out-patients and of the in-patients to pay? Some time ago, within the last two years, we adopted the practice of requiring out-door patients to pay. We felt that a great many people came who ought not to come, and through our own officers partly we made inquiries, and we came to the conclusion to charge 1s. for registering, and if the officer-in-charge thought they ought to pay more he made inquiries, but since the system of registration was adopted, and the paying of 1s. we have not found that any material imposition was practised. As far as the in-door patients are concerned, they are questioned rather severely by the Medical Superintendent who gets to know their circumstances, and he tells them that he will require so much from them, and they generally fall in with his request. We have had some trouble with the Saturday Hospital Fund. Until last year we used to get our share of the whole fund, but when they made the last division, they kept back what they called the money received from the industrial people—people in shops, warehouses, houses, or factories, who contributed 6d. or 1s. a week. They kept back about £1,100, and they made it a ground of complaint against us that we did not afford them the same facilities as our ordinary subscribers. There is a by-law to the effect that subscribers of two or three guineas have a right to one or two orders. This was denied to the Hospital Saturday Fund, so they cried out about it and said they were compelled by those who gave them the money to get some consideration for it, and they have kept that money back. All we had to do was to say that we would not admit them except under our rules. Then there was an arrangement that they should pay the cost of the people to whom they gave orders at the rate of 4s. a day. We had a conference a little while ago with the Prince Alfred Hospital, and we thought we should come to an arrangement with the Saturday Fund people that they should give us the whole of our share of the industrial fund, and that we should acknowledge their orders, but reserve the right to question patients as to whether they were financially fit for the hospital. They have not carried out what they agreed to do, and we are in an unsatisfactory position with them.
583. They sent to you people that you did not consider were entitled to hospital relief? We thought so. We have people who cannot pay their way, but a great many we thought were not only able to contribute to the fund, but could also pay for hospital treatment.
584. Do you follow up the inquiries made by the Medical Superintendent by sending any officer to visit the homes of the patients and inquire into their circumstances? To a limited extent only.
585. Can you tell us to what extent? We do not do it very often. If we have reason to suspect that they are imposing upon us and should not come to the hospital, the collector goes and visits them.
586. It is not systematically done? Hardly, I think.
587. Do you find that the amount received from the Saturday Hospital Fund and from subscribers now equals the amount that was received from subscribers alone a few years ago? No; I think not. I think the amount is £300 or £400 short of what we used to receive from subscribers alone.
588. Will you tell us how your accumulated funds were invested? On the 31st December, 1898, we had to the credit of our Benefactors Permanent Trust Fund a total of £57,662; of this amount £24,218 was expended on the permanent structure, and we have a balance of £33,444 invested with the Bank of New South Wales on fixed deposit for one year at 3 per cent. per annum.
589. How has that £33,000 been made up? By bequests, legacies, and donations of from £100 upwards.
590. Has any condition been attached to those bequests or legacies that they should be invested, or has the money been invested under your by-laws? The condition generally attached has been that we should only expend the interest.
591. Has that condition been attached to the whole of this money? To most of it. We have a by-law to the effect that every sum bequeathed to the hospital of £100 and upwards shall be invested in that way, and that the interest only shall be expended from year to year.
592. Do you think it is advisable that you should have a by-law to that effect? I do. I think it is a safe one.

593. It is safe; but is it advisable to accumulate funds really for the benefit of posterity? It is just what we would do for our children—making provision for those who come after us. J. Ewan.
594. But should not the hospital be left for those who come after us, to support it in their day? I hardly think so. I should like to see that fund built up until we are able to do without Government assistance altogether. May, 1899.
595. I think it is a fact—have you any knowledge of it—that hospitals with permanent endowments are not, as a rule, as well conducted as hospitals which have to depend for their support on subscriptions from the public? My experience is only limited to Sydney Hospital. As far as money is concerned, we could not be more careful or economical than we are.
596. But you depend largely on subscriptions and upon Government aid? At the Sydney Hospital we take as much care of the money that we get as we should if it were our own. There is no waste there.
597. I do not doubt that; but I am speaking of such a hospital as you have referred to—one that exists entirely upon invested funds;—for every hundred pounds that you invest, practically you have to ask the Government for £100 to supply its place? Yes, that is the condition under which we work.
598. By not taking the money into your current account and expending it, you have to ask the Government for £100 for current expenses? No; for every £100 that we receive in that way in the shape of subscriptions, legacies, or bequests, the Government give us another £100.
599. That is hardly the position I want to put to you;—by taking this £100 out of your expenditure, and putting it to an endowment fund, and getting only £5 a year for it, you are virtually obliged to ask the Government for another £100 to supply its place? That is the inducement we give people to subscribe. We say if you give us £100, we shall get another £100 out of the Government. That is one of the arguments that we use.
600. Then I take it that a very large proportion of this £33,000 is made up of sums that have not been set apart as an endowment fund by the donors or the people who bequeathed the money, but moneys that have been placed to the credit of that fund under by-laws of the hospital? We have a by-law to the effect that every £100 is to be put to the credit of the Permanent Benefactors' Fund.
601. A large proportion of this £33,000 arises from donations of £100 set apart under the by-laws? Not a very large proportion.
602. What is the advantage of the Samaritan Fund? We had in December, 1898, £2,903 to the credit of that fund. When the matron or medical superintendent find cases that warrant assistance to enable poor patients to travel to their homes or to supply them with surgical instruments, boots, shoes, or clothing, the person being thoroughly destitute, they recommend that that person shall get from £1 up to £5. We have always saved considerably on the interest. Our disbursements have fallen short of the full amount of the interest every year except one. From year to year the sum has gradually grown. The amount was much smaller than it is now when the fund was first instituted.
603. Up to the present you have held out as an inducement to subscribers that they could have so many orders for in-patients and so many orders for out-patients? Yes.
604. You propose to do away with that practice now, and admission will depend upon the medical and financial necessities of the case? Yes.
605. The medical superintendent being the judge of the medical condition and the fitness of the patient to be admitted? Yes.
606. You are following the Prince Alfred Hospital in that respect? Yes.
607. Can you tell us the cost of Moorcliff as a home? No.
608. It has never been calculated out separately? No; but I think I may say from what I have heard, as far as Moorcliff Hospital is concerned, that from what we get in the way of rent from the Government; and as the Government pay nearly all the fees, it is a self-supporting institution; perhaps a little more than that. The Government pay £350 a year rent, the place is pretty well occupied by Government patients, and what we receive from the Government pays the full cost.
609. And gives you something for the profit of the hospital? A small amount.
610. The Government patients during last year were 417 out of a total of 561? Yes.
611. So that the 3s. a day for those patients more than pays for their maintenance? I would not say that it more than pays for their maintenance.
612. They are a very cheap class of patients to maintain? Yes, cheaper than those in the principal hospital considerably.
613. They require but little nursing; they cost little for medicine and for surgical dressing, the main cost being in instruments, I think? Yes; but whilst on the subject of cost I may say that last year we spent £1,932 more than our income, and for the previous year £1,330 more than our income; and we found by careful calculation that 3s. per day for patients in the chief hospital is not sufficient remuneration. The Prince Alfred Hospital found it to be the same, and we have it in view to apply to the Government for 4s. per day; and having that 4s. a day, we should just about meet the excessive expenditure.
614. What is it supposed that you do for the Government subsidy—you get about £4,000 a year; hitherto has that been taken into consideration? In view of the fact that the Government give a subsidy of £ for £ we have taken patients at less than the cost; but we find that by that arrangement we are getting into debt. We have it in view to set the position before the Chief Secretary.
615. You have no private wards? No.
616. Do you charge any fees for operations? No.
617. Will you tell us the number of your paid medical officers? Nine altogether.
618. How are they paid? The medical superintendent receives this year, £350 a year; last year the amount was £300; that in future is to be the maximum. The senior resident medical officer receives £100; then there is the Assistant Pathologist, he receives £75; and there are six others at £50 each, all with quarters and food.
619. Will you give us the rate of pay of your matron, sisters, nurses, and probationers? When Miss Gould was with us she received a salary of £300 a year; the present matron receives £200 a year; one sub-matron, at Moorcliff, receives £90 a year; there are five sisters—one senior sister at £72 a year, one sister at £60 a year, three at £54 a year each; head-nurses, one at £72 a year, two at £60 a year, and two at £52 a year. The other thirty-two nurses receive for the third year £36, for the second year £32, for the first year £26. The twenty-one probationers receive £20 per annum each with board and lodging. Wardsmen receive £52 a year with board—one with board and lodging.

- J. Ewan.  
1 May, 1899.
620. *Mr. Barling.*] Is it not possible to give us some idea of what proportion of money has been put to the endowment fund by the will of the donors, and what proportion by resolution of the committee under that regulation? Not correctly.
621. Could you give it roughly? I will try.
622. Would it be half of it? No; not more than £5,000 or £6,000.
623. Only about £6,000 has been put to the endowment fund by the committee? I hardly think it would come to that much.
624. Suppose a person gives £100 to be placed to the endowment fund, do you get £100 from the Government as against that; and when you get that £100 do you place that also to the endowment fund or do you use it as revenue? It is used as revenue. The late Mr. J. T. Neale gave £3,000, and when we sent in our statement showing the amounts received we received £100 that year in respect of that, thus leaving £2,900. We receive from the Government interest on £2,900, and we receive interest at that rate until the whole sum is paid back to us £ per £.
625. So you get £ per £ in the way of interest on these sums? Yes. They will not give us in respect of any one case more than £100, but as the years go by they give the interest until we have received a sum equal to the principal.
626. You say that the hospital had suffered by reason of the Hospital Saturday collection? Yes; that is the conclusion we have come to.
627. Do you think your loss is equal to the gain;—do you think that you have lost a sum equal to the proportion given to you from the Hospital Saturday Fund? In 1898 we received £190. I feel sure that if the Hospital Saturday movement had not been in existence we should have received from the public a larger sum than that.
628. So that these hospital days not only do not assist the hospital, but they actually impoverish it? They take away what we should otherwise get.
629. So that all that exertion goes for nothing? That is the way we look at it, especially now that they have kept back from us our share of the industrial fund.
630. *Mr. Powell.*] Do you not think that the public generally regard the Sydney Hospital as a Government institution? I hardly think so, because we never send people to Government officers until we feel sure they are destitute.
631. They appear to treat it as a Government institution by not subscribing very liberally? There are a great many other institutions to subscribe to, and when it is all put together it makes a large sum. It is not everyone that gives.
632. How long has that by-law to which you have referred been in force? It was passed years ago. The amount which should be applied to the endowment fund used to be as low as £50, but it has been raised to £100.
633. *President.*] What provision is made for auditing the accounts of the hospital? We have Mr. Taylor, a paid accountant, who receives a salary of £25 a year. He examines the accounts every month, and we get quarterly statements laid on the table. We have a by-law which makes it incumbent upon three directors to audit the year's accounts. Last year the auditors were Mr. Fell, professional accountant, Mr. Sheridan, Manager of the Bank of New South Wales, Bathurst-street Branch; and Mr. S. E. Leas, M.P.
634. So you have an outside audit and an internal audit as well? We have a professional paid auditor, and one of our own people, and Mr. Sheridan, the Manager of the Bank.
635. Do you know anything about the way that supplies are provided in the hospital? We call for yearly contracts for such goods as we can get that way. There are some few things, not many, and every year they are becoming less that we buy direct as they are required. As far as the expenditure is concerned there is nothing wasted that I know of.
636. Have any steps ever been taken by the directors to bring under the notice of rich colonists the claims which the hospital has upon them to be remembered in their wills? I wrote to fifty or sixty people.
637. For donations? To remind them of the claims which Sydney Hospital has upon them. The directors personally endeavour to influence people. We received money from Mrs. Russell. Sir Arthur Kenwick guided her largely in the making of her will. We do it wherever opportunity offers.
638. From what sources has the Good Samaritan fund been built up? Some thirty or forty years ago there was a sum of £1,300 or £1,400 put out at interest, and it was hardly ever used. That was the way it began. There was also money left, I believe, by patients, and never claimed.

Nellie Gould sworn and examined:—

- Nellie Gould.  
1 May, 1899.
639. *President.*] You were Matron of the Sydney Hospital? Yes.
640. Now you are Matron of the Rydalmere Asylum? Yes.
641. We wish you to give some information about the position of the nurses in the Sydney Hospital;—First I would ask what is the method of their appointment? Any applicant bringing suitable references, if she looks suitable, is put on the list, and then taken on in her turn.
642. They are not selected? Their names are not put down unless they bring an introduction from someone. If they bring no introduction their application is not considered at all.
643. If they are likely to be suitable their names are put on the list, and then they are taken on in their turn? Yes.
644. Between what ages are they selected? They must not be under 20 or over 30, unless by special permission of the Committee.
645. At what pay do they start? £20 for the first year.
646. What is the next stage? £26 for the second year.
647. What is the next stage? £32 at the end of the second year, and £36 a year after that.
648. What is the next stage? There is no further increase of salary unless they are put on the staff.
649. What is the position for the first year, and afterwards? The first year they are probationers; the second year assistant nurses; the third year nurses—that is, if they pass the examination at the end of each year. If they fail they remain the same as they were before.
650. At the end of the third year do they move up? No; they are known as senior-seconds after the third year. Then they can take a short holiday charge.
651. What pay do they get then? £36 a year.

652. What is the next step? When a vacancy occurs for a charge they are appointed probationary head nurses for three months in charge of a ward of not more than twenty-two patients. Nellie Gould.
653. What do they get when they are appointed charge nurses? Not anything till they are really appointed at the end of the three months. If appointed head nurses they get £42 a year. 1 May, 1899.
654. What is the next increase after that? £45.
655. What position have they then? That of head nurse, second year.
656. What do they get after that? £48 a year.
657. What happens then? They go on as head nurses unless they are appointed as sisters. A sister can have charge of the hospital at night, or can have more than one ward under her supervision.
658. What do sisters get? They receive £48 the first year; £54 the second; and £60 the third; they may be appointed sisters after being eighteen months head nurses, if there are vacancies. The highest salary that they get is £60, except for the one who acts for the matron; she is called the senior sister, and she gets £72 a year.
659. That is the highest office under the matron? Yes; except as regards the branch at Moorcliff. They have a different arrangement there.
660. What leave of absence do the nurses get? All the nurses have three hours every day. If they do more than ten and a half hours' duty it has to be paid back to them. They are supposed to have every day three hours off duty.
661. Are their normal working hours ten and a half? Yes; all through.
662. If they have to do anything in excess of that it is always made up? Yes; sisters and head nurses get one hour less.
663. About the leave of absence? Sisters have twenty-four hours in the month, and head nurses twenty-four hours, the second and third years; and all other nurses have from 10 o'clock once a month. The probationers have from 11 o'clock once a month.
664. Before they get their three hours off they must work ten and a half hours. The time off duty may be from 6:30 till 10:20 a.m., or 10:45 a.m. to 1:15 p.m.; or 2:30 to 5 p.m., or 6 to 9 p.m.? No, not always.
665. Is there any annual leave? Yes; fourteen days for the nursing staff, three weeks for head nurses, and a month for sisters.
666. On full pay? Yes.
667. Are you in a position to say whether during your time there were sufficient or more than sufficient nurses? At any time if I had to keep them on duty longer than ten and a half hours I had to report to the committee, and then another probationer was appointed.
668. The hospital was just sufficiently supplied as far as nursing was concerned? Yes.
669. Will you tell us the training that they have to go through as probationers;—have they much cleaning? No; in each female ward there is a wardmaid who does the washing up, the scrubbing of the floors, and the rough cleaning. In the male wards wardsmen do the scrubbing, washing up, rough cleaning, and help to lift heavy patients.
670. So that probationers have no very rough work to do? They have the washing up of all the dressing utensils, and they have to dust the wards.
671. Has every probationer to take a share in that? Yes; and even in the second year if necessary. The washing of the things used at meals is done by wardmaids.
672. Then all the probationers have to go through the same training? Exactly the same.
673. Do the nurses make any complaints of their position to you? Sometimes they find it very trying, more with regard to the spittoons, &c. They get tired enough, but I have not heard much complaint.
674. Are you satisfied with the nurses' quarters? It is a very old house. When the new hospital was opened they built an extra floor on it. Where five inmates occupied a room the number was reduced to four, and where there were four the number was reduced to three. Rooms were used for bedrooms that were meant for sitting-rooms.
675. *Mr. Barling.*] You said you had not heard nurses complain of having been overworked, which shows that there is a sufficient number of nurses to do the work? Of course for ten and a half hours they have to work hard.
676. Do you think that is too long? Those who are strong seem to stand it very well.
677. It is a good test as to physical capacity? Yes; and I have known those who were not strong to do it well, if they had good heads. If they are not methodical, it makes a great difference. A methodical woman can get through her work better than one who is not methodical. Their heads save their heels.
678. During this ten and a half hours I suppose they have a certain time off for meals? It is ten and a half hours of actual ward work.
679. They are kept at work? They have to attend to the patients for ten and a half hours. The time that they are away for meals is not counted.
680. You think that is not too much for the girls? They seem to manage it very well.
681. Have you ever made out any statistics showing the number of patients to each nurse? There are five and a half beds to each nurse.
682. How does the Coast Hospital compare with the Sydney Hospital in regard to the number of nurses, the patients, and the hours worked? I really could not tell. They have so much ambulance work. I do not know what effect the ambulance may have as regards their work. They have three or four nurses always out with the ambulances. We might have one out every day, or two, but they would not have to make such long journeys.
683. Have you ever been to the Coast Hospital? Yes; several times.
684. Did it strike you that they had a smaller number of nurses than they ought to have? If the nurses could have been left in the wards they had enough, but they were often taken away to go with the ambulances, and one nurse would be left where there ought to be two.
685. Is there any marked difference between the class of cases dealt with at the Coast Hospital and the class dealt with at the Sydney Hospital? There is a very great difference. During the typhoid fever season their typhoid wards are fuller than ours. Our patients are mixed.
686. Typhoid cases require a larger number of nurses than surgical cases? Yes.
687. They would require a larger number of nurses for 100 cases of typhoid than for the same number of other cases? Yes.

- Nellie Gould. 688. Then you think that on the whole the Coast Hospital is rather under-officered? I always thought it was, because of the nurses being taken away by the ambulances.
- 1 May, 1899. 689. Have you ever compared the rates of pay at the Sydney Hospital with the rates at the Coast Hospital? I think they are paid rather higher at the Coast Hospital; but then they are so far out, and it is not a training-school for general cases.
690. It would not be such a good training-school; but you think they pay a little more? Yes; they have uniforms granted, and our nurses have not.
691. Have you any idea of what the difference would be per annum as regards the pay at the Coast Hospital and the Sydney Hospital? I do not know what they get at the Coast Hospital; I know the pay is higher, and they get their uniform. The uniform makes a difference of about £4.
692. *President.*] I suppose that the buildings at the Coast Hospital being very scattered, that tends to make a larger number of nurses necessary? Yes, that, and having so many infectious cases. In the Sydney Hospital you can send a nurse from one ward to another, but in the Coast Hospital you cannot exchange them.
693. *Mr. Barling.*] Have they any difficulty in filling up the positions of nurses in the Sydney Hospital? None whatever.
694. They have a large number of applicants? They always had to wait for about two years for their turn to come.
695. That shows that a large number wish to get it? Yes; but only about one-third are suitable even when they come.
696. About two-thirds give up after a month's trial? A few give up after the first twenty-four hours; a number stay for a month, and then say they do not like it, or are not strong enough. The hospital also decides that some are not suitable.
697. Then your conclusion is that the nurses are not overworked? It is. I know that when the Melbourne Hospital question was raised, the nurses spoke very openly about it in the hospital, and they said they would not care to have the eight hours. They preferred the existing arrangement. That was the general opinion amongst those who had been there more than a year.
698. *Mr. Walker.*] I think you said that the nurses at the Sydney Hospital do not scrub the floors? They do not scrub the wards—they scrub the lockers and the tables.
699. Was that always the case? They have always done the lockers; they do not scrub the floors.
700. Did they never do the floors;—in the Prince Alfred Hospital it is a new rule is, it not? I really cannot tell you what they do in the Prince Alfred Hospital now.
701. Has it always been the same in Sydney Hospital? Yes; they have had wardsmen and wardsmails, but the work has been rearranged a little. They used to have only one wardmaid for two wards, now they have one in each ward. The wardsmails scrub the floors and do the washing up as well.
702. You say that the nurses get a fortnight every year;—is that merely a stereotyped rule, or do they actually go? They actually go away for fourteen days.
703. Does the nurse really go away? She need not go; the beds are there.
704. Does every nurse go away for a fortnight every year? Yes.
705. You are certain of that? Up to the 31st December they had to take their holidays.
706. Might not one out of good nature stop behind? She has to take her holiday before the 31st December. It was my business to see that she went. It was always insisted upon. They could sleep at the hospital and go out during the day, but they were off duty, and they were not allowed to go near their work.
707. How many nurses do you say there are at the Coast Hospital? I could not tell. They have had an increase lately.
708. Did they complain some time ago of being overworked? We saw it in the papers that they did.
709. You never had any complaints from any of those nurses in the Sydney Hospital? Well, women always complain more or less.
710. I mean as regards their treatment? No, we never had, except in the matter of promotion; there were grave complaints about that some who were not promoted when they thought they were suitable for promotion considered that they were hardly used.
711. *Dr. Manning.*] The first three years is looked upon as entirely training? Only training.
712. And it is on account of that that the salaries are small? Yes.
713. In fact, they are being trained to a very highly respected and to some extent a remunerative profession? Yes.
714. And the next two or three years they are waiting there either to join the hospital staff or to find some good position privately? A great many of them stay on to get some experience in administration which they could not get away from a hospital, and to learn the housekeeping part. We always had one nurse in training for housekeeping duties.
715. It is very few of the total number who really join the hospital staff? Very few. After getting sufficient experience, if an opening occurs in a country hospital or elsewhere they go.
716. And to private nursing? Yes.
717. So that mainly the hospital nursing arrangements are for the teaching of a large staff for the outside public? Yes.
718. And when they are nursing outside I suppose they work more than ten and a half hours a day? Yes; some of them have been on five days and five nights. Some have told me that they have not closed their eyes for five days and nights in operation cases. They cannot stand it long; a great many of them have to give it up.
719. What about the number of applicants each year for these positions? I was very rarely without two applicants a day, except on Sundays.
720. So you would have about 600 in a year? Yes; I counted the applicants for one year, and they were 600 odd. Out of those only a few would be put on the books. Many came just to see if they could get a place.
721. I suppose that you put sixty a year on the books? We generally took on about thirty for seventeen or eighteen vacancies. They would have to wait two and a half years to get appointed.

Captain James Edie sworn and examined:—

722. *President.*] You are Shipping Master at the Port of Sydney? Yes.

723. We are told that seamen are frequently discharged from ships in Sydney harbour in a diseased condition, and that they become inmates occasionally of the Government Hospitals;—do you know of cases of that kind? There are such cases, but they do not often occur. There is one class of cases that are sent to Little Bay—venereal cases. Those cases the Sydney Hospital refuse to take; there are not many of them.

Captain  
J. Edie.

1 May, 1899.

724. When it happens do they require a certificate that the man is unfit to proceed on the voyage? Yes; I have brought one with me.

725. That is a certificate from the Sydney hospital? Yes; to the effect that a man is unable to follow his usual occupation. There is also his discharge from the Hospital. We only pay the man his money when he brings us his discharge.

726. When this discharge is presented the man gets his wages;—are any deductions made from his wages? The Sydney Hospital charges the ship 3s. a day for a man whilst the ship is here. When the ship is ready for sea, the master of the ship pays two guineas to the hospital, and becomes a subscriber, which entitles him to a bed for one man.

727. That is, if the ship is ready to sail, and the man is not discharged from the hospital? Yes; I then get his money from the captain, and also his effects, if it is not a case of contagious disease. If it is a case of contagious disease, his effects have to be sent to the Board of Health to be disinfected. I keep the man's money, and if he comes out I pay him. If he dies it goes to the Board of Trade, in the case of an English ship. If it is one of our own cases we settle the estate here.

728. You pay the money to the Sydney Hospital? No; the captain of the ship pays the 3s. a day, and the two guineas to the hospital. They give him a certificate to the effect that the man is unfit to go to sea in the ship; and I endorse upon the ship's articles the statement that this man is left behind in the hospital, and that his wages, amounting to so much, together with his effects, have been left in our charge, so that wherever the ship goes there is an account of the man. The captain has then done with him as far as he is concerned, unless the man has been injured in the service of the ship. In that case I specially mention that fact in the endorsement. If it is a vessel belonging to another British possession, any expense that we may incur here on that man's behalf we shall recover from the Board of Trade, and the Board of Trade will recover from the ship if the man was injured in the service of the ship. But if it is a case of sickness through natural causes, his wages are supposed to go as far as they will towards the payment of hospital charges, and then the State or Colony to which his ship belongs has to make good the amount.

729. Suppose it is no case of injury in the discharge of the man's duties, and suppose it is an illness brought about by his own conduct, what is done then? His wages must go as far as they will, and if there is anything more to pay it is for the Board of Trade to defray the charge. It is not the ship that is liable. I think you will find that according to the 160th section of the Merchant Shipping Act a man is not entitled to his wages if his illness arises through his own wilful act or default.

730. Does the ship pay the two guineas and the 3s. a day? Yes.

731. Up till what time? Ships have been two months here, and they have paid 3s. a day for a man in the hospital during the whole time. Before going away, if a man is still in the hospital, the ship pays two guineas, and the hospital takes its chance. The man may die, but if he stays twelve months that is all they get.

732. And if he remains there all his life it is the same? Just the same.

733. Then seamen suffering from venereal disease are sent to the Coast Hospital? Yes; but those seamen have to contribute as far as their wages will go towards their cost there.

734. In most cases do their wages go very far? Their wages are very little.

735. What would be the average sum due in wages? In the steam boats coming here firemen's wages are £4 10s. per month, and seamen's wages £4. They get one month's advance, and they arrive out here in about fifty or sixty days, and they get supplies on board, so they have very little money coming to them. There is a case of a man off one of the Orient ships, who is in the hospital suffering from gonorrhoeal rheumatism, and he may be there for a long time. In 1896 there were only two from the Orient Company.

736. What practice do the Orient Company follow in regard to those men? When they send any of their men into the hospital I think they pay their expenses all the time the men are there. It is not the same in ships that come consigned to an agent. The agent says, "I will not accept any responsibility; I know nothing about you. Your ship was merely consigned to me, and when our accounts are made up and the ship cleared our relations cease."

737. But you must remember that the Sydney Hospital does not keep people there long; they have to make room for others;—suppose that a man leaves there and goes to a Government asylum, and has to be kept there all his life, what do they do then? He need not be kept there all his life. If he comes from England, and is an incurable, and fit to be sent back, I send him back.

738. And the Home authorities settle for the expenditure? Yes; they pay the captain of the ship 3s. a day for carrying him.

739. How many do you send under these circumstances? I could not say exactly. It does not often happen.

740. I suppose it would apply to other Governments—German or French—as well as the British Government? Yes. If one of our ships leaves a man in a foreign port the British Consul looks after him, and any expense incurred is charged to the New South Wales Government, through the Board of Trade.

741. There are not many such cases? No.

742. Have you any idea of the number? I could find out.

743. Have you five in a year? I do not think that we have every year. Some years we might have more than five. That includes shipwrecked sailors, who are treated in the same way. If any injury is sustained by a man in the execution of his duty the shipowner is answerable.

744. Can you tell us anything about the practice in New Zealand,—have they any such cases there? They had none when I was at sea; they have had since. I have a copy of the Act.

745. Section 5 deals with it? Yes; that is a very vexatious sort of thing. It requires that, before a seaman is discharged incapacitated by illness or accident, a deposit must be made for his maintenance. It is not a good thing.

Captain  
J. Edie.  
1 May, 1899.

746. *Mr. Powell.*] About these men to whom you give discharges here,—suppose a man ships in London on London articles to do the round voyage, he falls ill on the voyage, and shortly after leaving port he is discovered to be disabled from disease, he is knocked off, and does no work, and has no wages to get when he arrives here, and he is worse; then the agent of the company visits you, gets a certificate, and you give a discharge? The ship should have a doctor attending the men when it gets here. The shore doctor would recommend the man's removal to the hospital for treatment. The captain comes to us, and I advise him to go and see the Government Medical Officer.

747. You get the certificate stating that the man is unable to discharge his duties? Yes.

748. Upon that certificate the man goes (say) to the Coast Hospital; but there is no claim then against the master or the owners, nor any claim under the original contract, because the man has contracted the disease by his own wilful act? No.

749. Therefore there is no claim against the Orient Company or any other company? Not up to the 1st of the last month. The English law was amended so that it brings under it all cases except those of desertion or disappearance, so I presume that these are included.

750. What I want to do is to prevent the possibility of its appearing that this Commission is reflecting in any way upon the Orient Company, who seem to be acting quite within the law? Yes; there was some correspondence on the same subject between the Government Medical Officer and the Orient Company.

751. There is no reason why there should be any claim against this Government for any inability caused by disease on the part of a seaman in reference to the payment of whatever is due to him or to the Government for attention to him; it would be paid, I take it, by the owners or the Board of Trade? If the man is injured in the service of the ship the money is recoverable from the owners. We endorse that on the articles, and the Board of Trade will recover. I am empowered to incur expenses on behalf of the Board of Trade in cases of that sort, and to draw a bill on them at three days' sight. If any expense was incurred on behalf of these men, and the bill was sent to the Board of Trade it would be paid in the case of an English registered ship. If it is the case of a Canadian or New Zealand ship provision is made for that.

752. Considering the small number of men who are sent to the Coast Hospital, do you think it at all necessary or desirable that there should be in this Colony legislation such as they have in New Zealand with regard to this matter? I do not think it is required, because the thing is already provided for. The Board of Trade would have paid; and I see from the amending Act that has come out it will largely increase the liability of the shipowners.

753. There is one other point, and that is about the foreign ships;—your answer to the President was unintentionally misleading;—as a matter of fact, you have no control over foreign ships, as Shipping Master? None whatever.

754. That is a business entirely between the consul, the master, and the seamen? Yes.

755. And whatever payments are made by foreign ships it is the voluntary act of all those concerned;—we have nothing to do with it? No. When I was in a foreign country, being master of a ship, if I sent men to the hospital I had to pay the hospital, but I could not send them except through the consul.

756. What I want to know is whether the consul is responsible for all matters connected with the business of ships under the various flags;—that it is not your business to deal with any except British ships? That is all. We have nothing to do with foreign ships.

Charles Howard Helsham, B.A., sworn and examined:—

C. H.  
Helsham.  
1 May, 1899.

757. *President.*] You are secretary to the Sydney Hospital? Yes.

758. When were you appointed? On the 1st September, 1898.

759. What is the number of the directors? There are ten Government directors—ten elected by the subscribers; two elected by members of the medical staff attached to the hospital; and there are four office-bearers, who are, *ex officio*, directors, making altogether twenty-six. The office-bearers are the President, the Vice-President, and the Honorary Treasurer.

760. How are the subscribers' directors appointed? At the annual meeting.

761. By votes of the subscribers? Yes, by vote if necessary.

762. Is it often necessary to go to a vote? No.

763. How are members of the medical staff appointed? The Board appoints them.

764. How many resident medical officers are there? There are nine.

765. And how many visiting medical officers? Twenty-six honorary visiting medical officers and six honorary consulting medical officers.

766. The resident medical officers are paid, I presume? Yes.

767. Have you a list of the salaries? I have not.

768. Have you got the total cost per annum of the medical staff? Yes, £825.

769. How many nurses are there, including the matron? Sixty-five.

770. And how many sisters? Five is the number of the usual staff.

771. And how many nurses are there? There are five head nurses and thirty-two nurses.

772. How many probationers are there? Twenty-one.

773. And how many wardsmen? Nine.

774. What is the number of the clerical staff? I have an accountant and a collector, and Mr. Russell, the ex-secretary, comes and does an hour or two's work in the day-time in my office. There is also an office-boy. Then there is what we call the "out-patients' clerk," Mr. Moore, who attends solely to the out-patients.

775. Is he under your control? No; he is under the Medical Superintendent.

776. What other officers besides those mentioned are employed? I think the only other two whom you would call officers would be the house steward and the dispenser.

777. What is the number of beds at Moorcliff? There are sixty-eight.

778. *Mr. Barling.*] What have you to do in connection with the Medical Superintendent? I have absolutely nothing to do with the medical department of the hospital.

779. Has the Medical Superintendent any control over you? No; I am responsible solely to the Directors.



780. Have you anything to do with the matron? No.
781. Is the matron under the Medical Superintendent? I do not think so. As a matter of fact the matter never presented itself to me in that light before. I always thought she was under the Directors.
782. *Mr. Walker.*] Do you know how many patients you get from the country on Government orders? No.
783. Could you give any idea how many patients you get from country or other hospitals? I do not think we get any eye patients from other hospitals, because they do not go there.
784. There is not sufficient skill to cure them in the country hospitals, and they apply to us for orders to come to Sydney? I do not think there are many of those cases, because it is so well known in the country that Sydney Hospital is the only place where they can get eye treatment, that they apply straight away.
785. It is not always eye cases, but also complicated cases? I could not give you any accurate idea as to the number; they are continually coming in.
786. Do you know whether in these cases if the men have the means to pay they are compelled to pay? They pay what they can, they are asked what they can pay, and if they cannot pay they are admitted just the same.
787. You could not give us any idea of the number of those who come from the country hospitals? I could not.
788. Do you get many eye cases sent in there to go to Moorcliff or do you send them direct to Moorcliff? They must go direct to Moorcliff. We do not have anything to do with eye cases in the main building.
789. If any such case comes to the hospital and they find it is an eye case do they send the patient on to the Moorcliff Hospital? Yes; he is first examined by the Medical Superintendent.
790. They do not detain him at the Sydney Hospital for any length of time; he is sent on at once? He is not sent on at once, because there is very seldom accommodation to enable him to be taken in at once. People have to await their turn at the Eye Hospital just as women have to wait at the Women's Hospital.
791. I want to know whether the patient does not go into the Sydney Hospital? Yes, we take the patient in.
792. You could not tell us the daily cost of patients at the Sydney Hospital? I think it is about 3s. 8d. a day.
793. That is without any special attendance? That covers everything, food, medicine, and medical attendance.

C. H.  
Helsham.  
1 May, 1899.

FRIDAY, 5 MAY, 1899.

[The Commission met at the Offices of the Public Service Board at 2:30 o'clock p.m.]

Present:—

F. N. MANNING, Esq., M.D. (CHAIRMAN).

J. POWELL, Esq., J.P.

J. BARLING, Esq., J.P.

CRITCHETT WALKER, Esq., C.M.G.

Sir Edward Knox sworn and examined:—

794. *Dr. Manning.*] You are Chairman of Directors of the Prince Alfred Hospital? I am.
795. And you have been connected with the hospital as a director from the first establishment of the institution? Yes.
796. Could you give us the cost per bed of the institution? No; it would take some little time to make an estimate.
797. Do you know the amount of the Endowment Fund? Yes; it is about £33,000 at present.
798. How has this fund been formed? From legacies principally.
799. Can you give us the amount that has accrued from legacies, and the amount that has come by small donations of £100? No; but I can get it for you.
800. What rule have you with regard to donations of £100 and upwards? They go entirely into the Endowment Fund.
801. Whether that is the wish of the donors or not? Yes; under the rules of the hospital.
802. No sum under £100 is placed in the Endowment Fund? No.
803. Can you furnish us with a return showing the amount that was specially ordered by the donors to go into the Endowment Fund and the amount that has been placed there under the rules of the institution? Yes.
804. With what idea is this Endowment Fund built up? With the view of getting an income from it to assist us.
805. Do you think that is a better plan than to spend the whole of the sums that are not specially set apart for that fund by the donors? I think it is better to have something to fall back upon—something that brings in interest. We have £39,000 in the fund, which brings in about £1,200 a year.
806. But if you do not spend these amounts, you are obliged to get funds in some other direction, and you are really building up an Endowment Fund for the benefit of posterity? Yes; but I think it is quite possible that it might be desirable to spend some of the money in enlarging the hospital some day. It would be very useful for that purpose.
807. How is the money that is now in this Endowment Fund invested? There are £25,000 invested in inscribed stock at 3 per cent, £6,000 upon mortgage, and there is about £6,000 awaiting investment.
808. Have the subscriptions increased or decreased within the last two or three years? They have increased.
809. Then you do not think that the Hospital Saturday Fund has had any effect in decreasing the subscriptions? Not materially. It may have decreased them in certain ways by £200 or £300 in a year, and that, of course, would represent a loss of £600, because we get an equal sum from the Government; but upon the whole we have been considerable gainers by the Hospital Saturday Fund.
810. What is your method of obtaining subscriptions? We have a collector who solicit subscriptions, and he gets a certain commission upon the renewal of contributions and a certain commission upon any new subscriptions.

Sir Edward  
Knox.  
5 May, 1899.

Sir Edward  
Knox.

5 May, 1899.

811. Does he get a salary as well? He does. The present collector has only just been engaged. He receives £2 2s. a week for the present.

812. Does he get a commission on old subscriptions as well as new ones? Yes; he could not live otherwise. The whole amount does not exceed £2,000;—that is, without the money from the Saturday Hospital Fund.

813. Is the income which you derive from paying patients increasing? No; it is stationary as nearly as possible. It is £200 a month, or £2,400 a year.

814. I suppose the secretary will be able to give a return showing the amount, and the number of patients who pay? We have that in our books, and I think it is given in our Annual Report.

815. You are able to judge to a very great extent whether the accommodation in the hospital is sufficient for the calls made upon it? It is quite insufficient for the calls made upon it. For a length of time our average number of patients has been considerably in excess of the number of beds. We have had as many as 240 odd patients, and the number of our beds is 236. That was for a length of time. For the first three months of last year our average was certainly 233 or 234 beds full every day. We had no chance whatever to take in any very bad cases. If a railway accident or anything of that kind had happened we could not have taken the patients in.

816. Then more accommodation is required? Yes, more accommodation is required, and there is everything there that would be wanted—all the administrative buildings that would be wanted for about 200 more beds.

817. The administrative buildings already existing would be sufficient? Yes; if two more pavilions were added, that would enable us to add to our number at least 130 more patients.

818. So that all that is required is more ward accommodation? Yes.

819. Not more administrative accommodation? Well, there would be some nursing accommodation wanted; our Nurses' Home is quite full, but that, of course, could be provided for on the top storey of the new pavilions.

820. Did not the original plan provide for the erection of additional pavilions? It did.

821. It provided for the erection of four pavilions in addition to what you have got? Yes.

822. But the site for one of these has been taken up by the Nurses' Home? It has to a certain extent. The two projected pavilions coming out from the administrative block would be quite sufficient for the present.

823. Have you any estimate of the cost of those two pavilions? Yes. I should say that £20,000 each would be the amount. That would be about £8,000 less than we paid for the pavilions built before.

824. The pavilions already built and the proposed new pavilions being of the same size? Yes; of the same size.

825. And each of these pavilions would contain how many patients? Each should contain about sixty-four patients. Of course, we could enlarge the hospital to some extent to increase the number.

826. But as planned they were for sixty-four patients each? Yes; that would be 128 patients altogether.

827. So that it would cost £40,000 to increase the accommodation by 128 beds? Yes; of course we have had no tenders out, and I cannot bind myself exactly to the amount, but I think that would be the cost.

828. That is having in view the cost of the pavilions already erected and the difference in the building rates at the present time? Yes.

829. From the commencement the system of admission to the hospital has not been by tickets from subscribers? No; we have simply been guided by the urgency of the cases. I have never known an order to be given for the admission of a patient by a director or a subscriber.

830. When this system was first mooted it was new was it not? Yes.

831. The system in the Colony generally had been to admit by subscribers' orders? Yes.

832. And was it not apparent in many cases that the cost to the hospital, considering the length of time the patients stayed there, was far in excess of the amount of the subscriptions? Yes; a subscription of one guinea would entitle the subscriber to give an order. The average length of time that a patient remains in the hospital is four weeks, and the average cost per week is 28s., that makes £5 12s. That is what the cost would be to the hospital, whilst the amount received from the subscriber would be only one guinea.

833. Do you think you have got as many subscribers under the system that is in vogue now at the hospital as you would have had under the system of subscribers orders? I cannot say that we have quite as many, but I should think that we have nearly as many. No doubt it is a convenience to private people to have orders by them for the admission of patients, but I think it is a wrong course altogether.

834. From your experience you think the system now adopted at the Prince Alfred Hospital is the better one? Certainly.

835. What benefits have you allowed to benefit societies;—what was your arrangement with those societies and with workmen's clubs? The Railway and Tramway Employe's Society is the only one that would come under that category, and the arrangement with them is that they send their patients and pay 15s. a week each for them. This is on the understanding that at the end of the year whatever surplus there may be in the funds is to be distributed between the hospitals. In that way we have received about 30s. a week for all the time that the patients have been in the hospital. We receive 15s. at the time they enter and the rest at the end of the year. The amount of our last cheque from them, I think, was £195 10s. out of the balance of the fund.

836. The Hospital Saturday Fund, I believe, wanted to make some similar arrangement? They did, but there was great difficulty about it. The stumbling block was that we were to make no inquiries into the position of the parties who were coming into the hospital as to whether they could afford to pay or not. That has been got over by arranging that we shall not ask them on the day they come in, that when they come on an order they shall be admitted to a bed, but that we shall be at liberty afterwards to inquire into their circumstances.

837. And have the arrangements with the Hospital Saturday Fund resulted in their handing over to you the Industrial Fund? It is understood that they will do so. The arrangement was only made a few weeks ago. At the same time we do not know whether they can continue. It will depend upon what use is made of the power of recommending patients. If the number of patients becomes very great it may be necessary to make some alteration in regard to it.

838. So at present the arrangement is only tentative with the Hospital Fund? It is only tentative.

839. What inquiries do you make with regard to the means of patients applying for admission? We make inquiries from the patients themselves.

840. Do you think the system you have could be improved upon? No, I do not think it could.
841. You have no paid officer who goes out and makes inquiries at the homes of the patients? No; but we have for some weeks together had detectives employed who inquired about the patients, but we got nothing that we could take hold of.
842. Is any charge made to the out-patients? No; there is a box into which they can put contributions. I believe that at the Sydney Hospital they charge each patient 1s., and that brings in about £600 a year.
843. Is there any reason why it is not done at the Prince Alfred Hospital? No; we have discussed it on several occasions, but we did not like to do it unless it was absolutely necessary. To many of those who come to the out-department 1s. is a consideration.
844. And I suppose there is the danger of a person who pays his 1s. thinking that he has a right to the attendance? Yes.
845. So that there are disadvantages as well as advantages connected with it? Yes.
846. *Mr. Barling.*] I understood you to say that you did not consider that the subscriptions to the Hospital Saturday Fund have the effect of diminishing your income? No; it has had the effect of increasing our funds. It may possibly have diminished our subscriptions from individuals to a small extent, and, of course, that is a considerable loss to us, because we should be entitled to the same amount from the Government. If we get £600 from the Hospital Saturday Fund, the Government give us only £100 and then allow us interest on the balance.
847. Then you think, on the whole, you do not lose by the Saturday Hospital Fund; Mr. Ewan gave very decided evidence [see Q. No. 626, *et seq.*] to the effect that if the Hospital Saturday Fund had not been in existence the Sydney Hospital would have received more money from the public than it receives from that fund? I can quite understand that with regard to Sydney Hospital, because they have always had a very much larger subscribers' list than we have had, and their subscriptions were of a kind that might fall off.
848. So it would not have the same effect with regard to the Prince Alfred Hospital, that it would have with regard to the Sydney Hospital? No.
849. *Mr. Walker.*] Did I understand you to say that persons were admitted on application to the Prince Alfred Hospital? Certainly.
850. The only orders that you get are from the Government? Those are all.
851. There is a very different system in operation at the Sydney Hospital, is there not? There is.
852. Then any poor person going to the Prince Alfred Hospital, who is sick, is admitted? Yes. What ought to and I believe does govern it is simply the urgency of the case.

Sir Edward  
Knox.  
5 May, 1899.

Professor James Thomas Wilson sworn and examined:—

853. *Dr. Manning.*] You are honorary secretary to the Prince Alfred Hospital? Yes.
854. You are also one of the Professors at the University, Sydney, and have an interest in the hospital because of the Medical School, as well as from your position as honorary secretary? Yes.
855. Have you any figures showing the cost per bed of the hospital, excluding the cost of maintenance? Yes. I have here some figures that were got out some years ago by the late Sir Alfred Roberts, in the course of inquiries he made into the cost of hospitals in Australia. In some remarks upon the New South Wales Hospitals he says, speaking of the variation in the cost of construction:—

Professor  
J. T. Wilson.  
5 May, 1899.

Prince Alfred Hospital, with an average of 2,000 cubic feet per patient, costs £746 per bed.

He also makes the remark however:

That the ward pavilions for only 220 beds have been built, whilst administrative buildings for a hospital of 450 beds have been erected.

That accounts in part for the relatively high cost.

856. What is your present number of beds? 236.
857. How many are allotted for males, and how many for females? 141 for males, and 95 for females.
858. How are the wards allotted—to what kinds of cases? There are wards for male surgical cases; there are female surgical wards; male medical wards, and female medical wards. There is one small gynaecological ward, with half another small one. One children's ward, one male ophthalmic ward, and half of a small ward for female ophthalmic cases; two emergency wards, male and female, and four special wards for operation cases.
859. The latter have only one bed each? Only one bed each. In addition to those there are four private wards holding one bed each, and in addition six cottages with accommodation for two beds each.
860. The wards that you call emergency wards are mainly for accidents? For accident cases, and also for the first reception of cases that come in, which are unfit to go into the general ward straightaway.
861. Are any lock cases received there, male or female? Yes, in one of the small male wards. There is no special lock ward.
862. Can you give us any daily average of the number of beds occupied in 1898? The average number resident daily during 1898 was 227, which was a proportion of, I think, 96.6 per cent. upon the total accommodation.
863. So that at no time have you had very many spare beds for emergency cases, and serious accidents? No.
864. Sometimes the hospital has been quite full? Well, we have been over-full. It is possible, by utilising couch accommodation, to have actually more patients in the hospital than we have beds, and we have done that frequently—too frequently. It is a very undesirable state of affairs.
865. You consider that the hospital accommodation is insufficient for the calls made upon it? I do.
866. What do you think would be the best way to add to this hospital accommodation? It is, perhaps, that there should be built two pavilions which were originally planned to lie right and left of the present administrative block. I have here a plan showing the original scheme.
867. Can you tell me why it was decided to erect the two large pavilions that are now there, and to omit these two that you now propose to erect? I do not know why exactly, because it was pointed out at the time in a report which I have here, that the cost of the pavilions that were erected was considerably greater than would be the cost of the two pavilions to which you refer. The ground slopes, so that the foundations of the present pavilions were very costly. The foundations of the proposed pavilions would cost very much less.

868.

Professor J. T. Wilson. 868. Looking at the plans it would appear that it was owing to the greater facilities for administration afforded by the old pavilion than by those which you propose to erect? Yes; there is a plan which shows that at one time it was contemplated to erect the front pavilions first.

5 May, 1899. 869. You consider that the ground on which it is proposed to place these pavilions is quite suitable? Yes, I think it is admirably suited in all respects. I made the remark in regard to the present pavilions, however, that though they are nominally of the same value as the two proposed pavilions they really provide extra accommodation, because the basements of the existing pavilions have been utilised as small wards in each case. In those pavilions there are actually three wards, whilst in the new pavilions there would be only two, if the same plans are carried out.

870. Do you consider the administrative accommodation is sufficient to enable you to work these two extra pavilions? Very nearly. I apprehend that the necessity might arise for some small additions, but they would be very small indeed. I should suggest for example, that in the new pavilions we should not have private wards. That would add to the administrative accommodation attached to each pavilion, because each pavilion has its own administrative rooms attached. If they are built exactly like those at present erected we shall utilise the present private ward-space in addition to the present administrative rooms. The administrative department would, therefore, not require any increase at all. Sir Edward Knox remarked that the nursing staff would naturally be located in the upper administrative part of the pavilion. Practically one might disregard, I think, the administrative additions that would be requisite.

871. Would there be any diminution in the cost per bed in the working of the hospital after you have put up those two pavilions? Yes, I think a very considerable diminution.

872. I see that in the report of the hospital for last year it is stated that the total expenditure would be reduced, and that the cost per bed would be lower without any diminution of the efficiency of the institution if the two pavilions were erected; I do not quite understand how that could arise? An increase in the bed accommodation would not require an increase in the resident medical staff to any extent. A very slight addition to the staff would accomplish the work in the larger hospital just as they accomplish it now in the smaller one. That principle that I illustrated by reference to the medical staff would apply partly in regard to the nursing staff. We should have the same matron, and her services would be equally available for the new part of the hospital. With regard to the kitchen staff and the porters' staff we might require some slight addition, but that would be on a small scale per bed. I think that throughout the whole working almost every official would have an enlarged sphere which, however, would give very little extra work, and the cost would be proportionately reduced. Of course, not absolutely.

873. What was the date of the erection of the Nurses' Home? 1892.

874. What was the cost? £13,269 14s.

875. Are there any other points with regard to the building on which you would like to say anything? I think that whilst the two pavilions would necessarily be planned out in the way that the present pavilions are planned out, in the shape of large wards, it would be advisable to have, as part of the structure, certain additional accommodation for the out-patients' department. That is not a large matter, it would be highly desirable to have two or three extra rooms in connection with the basement of the central administration block.

876. That, as far as you are aware, is all that is needed in the way of buildings—all that is absolutely necessary? With regard to the question of cottages, under present circumstances we need more accommodation.

877. Cottages for infectious diseases? For cases that require isolation. Of course I could imagine a state of affairs in hospital accommodation that would relieve us of the necessity; but under present circumstances we certainly require some additions in that direction. I have known of eighteen cases during an epidemic of measles and whooping cough being accommodated in those cottages.

878. If provision were made for infectious diseases elsewhere, that would not be necessary? Of course, there are cases that come in—septic cases—that we cannot very well refuse to admit, which require isolated treatment, but which are not cases of infectious fever in the ordinary sense.

879. *Mr. Barling.*] You have told us that the cost per bed of the Prince Alfred Hospital is £746 per year, and that 2,000 cubic feet were allotted to each patient? I did not give the total cost; I said £746 per bed, cost of construction.

880. I think you said you had some figures which the late Sir Alfred Roberts prepared, giving a comparison with other similar hospitals;—could you give us the benefit of them? I am very pleased to submit the report just as I found it; I only came across it by accident amongst the papers, and I have hardly had time to digest it myself. Sir Alfred Roberts says:

The cost of construction per bed has varied greatly in different hospitals—from £17 6s. with an average of 820 cubic feet of space per bed (Gulgong) to £746 with an average of 2,000 cubic feet (Prince Alfred Hospital). In the latter, however, ward pavilions for only 220 beds have been built, whilst administration buildings for a hospital of 450 beds have been erected.

I do not see the details here. There is a statement of the total cost of construction in all the colonies, the Government contributions, the average cost per bed of maintenance, and so on.

881. I dare say you have carefully studied the needs of the population as regards hospital accommodation? I am afraid I could not say that I have studied it very carefully, but I have given some little attention to it.

882. Could you tell us whether, in your opinion, the hospital accommodation for Sydney generally is sufficient? I do not think it is; but I have not got the figures complete. The difficulty is to get at the actual number of beds.

883. I think it is about 1,232;—can you tell me how many beds per thousand are considered a correct proportion as regards hospital accommodation? I am afraid I cannot answer definitely. Necessities vary so much in different communities, but I believe that something like four per thousand is supposed to be a fair estimate. I really think, however, that such figures are not of very great value unless account be taken of the circumstances of the community in which they were deduced.

884. I think we have about three beds per thousand in Sydney;—what you say bears out some other evidence as to the four per thousand;—do you consider the hospital and nursing accommodation is up to date in every particular at Prince Alfred Hospital—I am referring to the character of the accommodation?

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- I think it is, taking it all round, quite up to date. I have not had an opportunity of instituting much of a comparison of late years, but from what I learn I think it is decidedly up to date.
885. As compared with the modern hospitals in the mother country and elsewhere? Of course I say on the whole, because there are several directions that I can indicate in which there could be improvement.
886. In what direction do you think there might be improvement? I think we suffer here from the fact that our resident medical officers are not sufficiently numerous to allow us to attach them to the honorary officers. In most of the home hospitals each honorary physician has his own resident medical officer.
887. I did not refer to the question of management; I referred simply to the building? I think the matters that I have in my mind are matters which would require setting forth in detail. I could not give any general answer.
888. I imagine the defects are not very serious? No, I do not think they are. I think that, for its size, the Prince Alfred Hospital is a fairly-equipped hospital. Of course I might say definitely that our operating department is not provided for sufficiently. I can still say so, although we are making an attempt to amplify it. We are making a second operating theatre, but in doing so we are taking away the only lecture theatre that we have in the place, and we shall urgently require a place for the delivery of lectures to the students and nurses.
889. So that the place you have taken now for a second operating theatre must be replaced by another? It ought to be. We are making shift in other ways. The nurses are lectured to in the Board-room, but that is not a suitable place. The students are lectured to beside the mortuary in the coroner's room.
890. Then the principal thing you require will be a lecture-room? That is one thing that occurs to me—I would not say that it is the principal thing.
891. Would you accommodate them in the new pavilions, or would you put up several buildings for that purpose? It would be rather difficult, I think, to provide separate buildings as part of the pavilion.
892. It should be a separate erection? It should be, I think.
893. Have you thought what it would cost to put up such a building? I have not; but it would not be very much.
894. I suppose about £1,500? Yes.
895. Do you think that any unnecessary expense has been incurred in connection with the hospital building? No, nothing of the sort has occurred to me.
896. Can you tell me who prepared the plans and how they were approved? Mr. Mansfield was the architect. I have his report here.
897. By whom were the plans approved before the buildings were erected? They were submitted by a deputation to the Colonial Secretary and received his approval.
898. The committee first approved of the plans, then submitted them to the Colonial Secretary? Yes.
899. *Mr. Walker.*] I think you said that the average number of beds occupied was 227 in 1898? Yes.
900. Is that an increase or decrease as compared with 1897? It is an increase. The actual number in 1897 was 225, with the same number of beds, so it is a slight increase as compared with 1897. Two more patients were present every day in the same number of beds.
901. Do you think there is any necessity for increased accommodation there? Yes; because you will observe that that leaves only an average of nine beds per day unoccupied. If the hospital were a homogeneous place and you always had nine beds available for anything, it would be less embarrassing; but in the male surgical wards there is often not a bed available for many days. In the gynaecological ward there is seldom one available either. There may be in the female medical ward, which is at times not over-crowded; but the nine beds have to be distributed over the various categories of cases. There may be pressure in three parts of the hospital, whilst in other parts there may be no such pressure. There should always be beds available for accident cases. In such cases one does not hesitate to take a bed and allocate it for that particular purpose, but one cannot do that all round. We cannot put a male patient in a female ward and so on.
902. I think you were present when Sir Edward Knox was speaking of the proposed two pavilions in the front of the building? Yes.
903. Do you think that if these were erected they would provide for the accommodation of any large increase of patients? I think they would.
904. How long do you think they would meet the requirements of the hospital;—could you give me any idea? I could only give an idea from reference to the past period during which the number of patients has increased. I do not quite know what you require.
905. You say that those pavilions would cost £20,000 each;—how long would it be before they were crowded out? They would go on for many years to come. They would meet the requirements of the Prince Alfred Hospital, and enable the Hospital to meet the requirements of the community. The actual number of beds occupied in a given year really depends upon the number we have to offer. When we have more beds to offer we may have a great many more cases coming in than we have even under present circumstances. Apart from the future increase of the population, if we could say that we had 300 beds, instead of 236, we should, in all probability, have a great many more patients.
906. *Dr. Manning.*] I see that your number of in-patients for 1898 was 3,706? Yes. That is including those who were left in the hospital from the previous year. The number admitted in 1898 was 3,471.
907. In 1883 the number of operations was 147; in 1898 it was 1,798;—how do you account for that enormous increase? I must remark first of all, with regard to 1883, that that was a partial year.
908. Take 1884? 1884 included a year and a bit. 1885 was the first full year from the first January to 31st December, for which the figures are given.
909. In 1885 there were 405 operations; in 1898 you had 1,798 operations;—how do you account for this enormous increase? I think there are several causes. If we look at the admissions of surgical and medical cases we see that the increase of surgical cases has been out of proportion to the increase of medical cases. The surgical cases admitted in 1885 were 812, whilst in 1898 they were 1,959. The medical cases on the other hand grew from 819 in 1885 to only 1,542. I account for that partly by the growing reputation of Prince Alfred Hospital as a surgical hospital. There was no reason why the increase in the medical cases should not have been as great as that of the surgical cases.
910. I see from the operation form that the operation cases are 50 per cent. of the total number of admissions to the hospital? Yes; in 1885 they were one-fourth, and they are now one-half practically of the number of cases admitted. I have given one reason, which, I think, is the growing reputation of the

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the hospital for surgical treatment. There has been an increase in the number of surgical cases admitted, and therefore a greater number of operations performed. Another factor, I think, is the increased development of surgery itself, that very many more cases now are susceptible to improvement by surgical treatment, and surgical procedures are very much more common now in any civilised community than they used to be. People used to die, now they are not allowed to die, they are operated on and cured, not only in cases of serious disease, but in regard to many minor affections. People went on suffering before where now they are relieved by operative procedure. Take the case of operations upon the nose; it is a comparatively small operation, but still the growths on the back of the throat and nose are removed, and children who used to go about as delicate children recover, and are strong and healthy. If I turn to the table of operations given in the Annual Report, I find that there are several lines which run into hundreds—the first line is “gynæcological operations 299.” It is suggested that the gynæcological operations have grown in number disproportionately, and that in many cases they have been unnecessarily performed, but I have calculated out a table showing not only the total number of operations, but the relative number of gynæcological cases compared with others, and after all there has been very little change. In 1885 there were fifty-four gynæcological cases out of a total of 405, practically one-eighth; in 1886 they were one-seventh; in 1887, one-fifth; in 1888, three-fourteenths; in 1889, one-sixth; in 1890, one-fifth; in 1891, one-seventh. From 1890 till 1898 they were one-sixth, so that after all very much the same fraction obtains all through. The gynæcological cases have not increased in any disproportion to the number of operations generally.

911. The number of out-patients and casualties I see is also increasing? Yes, it doubled during the last ten years.

912. You might give me the number of out-patients for the last year? We have an accurate record of the number of out-patients' attendances; but we have no actual means of determining the number of out-patients. That would involve a considerable amount of additional clerical labour; and that is one of the items of expenditure in regard to which we have to economise. We have at present to content ourselves with approximate estimates. The number of attendances for 1887, was 22,770; for 1898, 49,972. If we take 1888, the number for the year was 25,830, and the number for the past year was 49,972.

913. It may be reckoned that for 49,000 attendances there were actually about 12,000 patients? Yes, that is our estimate.

914. Can you tell us the cost of the out-patients' department? It is, approximately, £1,250 a year. That is again an approximation. I have here the items which we reckon into the cost of the out-patients' department, but in most cases they must necessarily be approximations. One of the heaviest items is chemicals and dressings. It would mean a refinement of administration which we cannot yet contemplate to keep separate accounts and separate stocks, to be able to allocate so much for in-patients, and so much for out-patients. We have to rely on the estimate given by the dispenser. We estimate the expenditure at £800 for the out-patients' department, and the proportion of salaries and wages at about £360.

915. These are for dispensers, porters, &c.? Yes, and for nurses; that is an additional item. We have one or two nurses in the out-patients' department now. Then there is a good deal of printing and stationery for that department.

916. What number of special departments have you in that hospital? We have the gynæcological, which however might not be considered a special department; the ophthalmic, and departments for the treatment of diseases of the ear, throat, nose, and skin.

917. I suppose that having these special departments in connection with the general hospital, prevents the establishment of any special hospitals for those complaints? I suppose it does.

918. Do you think this is an advantage, or do you believe in having a special hospital? I think it is an advantage to have a general hospital equipped with such a department, and so long as the necessities for that kind of treatment are not very large in the community, they can be provided for amply by a special department in a large hospital. It requires a very large population to justify the establishment of special hospitals for the minor departments. It may be different in regard to gynæcological cases, but in regard to all other cases the necessities of the community can be amply satisfied in connection with a large hospital.

919. Even as regards ophthalmic cases? Yes, even those cases.

920. They can be treated in connection with a general hospital quite as well as in a special hospital? Quite as well.

921. And I suppose it is advantageous to students to have special departments in connection with the Prince Alfred Hospital? Yes. There is also another advantage in having various departments. People come there who do not know what is the matter with them, and when they have been examined they can be told off to their respective departments. It is a matter of convenience that they should be received at the centre of administration, and then drafted off to the special department.

922. I see that the number of patients who contributed towards their maintenance in 1898 was 908;—can you give a return showing what amount they contributed? There were 931 who contributed in 1898.

140 of these were to pay 5s. per week.	81 were to pay 30s. per week.
50 were to pay from 5s. to 10s. per week.	1 „ 35s. „
290 „ 10s. per week.	3 „ 40s. „
133 „ 15s. „	19 „ 42s. „
125 „ 20s. „	1 „ 63s. „
91 „ 21s. „	1 „ 80s. „
11 „ 25s. „	

In the private wards there were 23 patients who paid £4 4s. a week, and in addition to those, 4 patients paid two guineas on admission.

923. Making them free to the hospital? Yes. Eight or nine paid unspecified amounts—unsubstantial amounts.

924. I understand that patients are no longer received into the private wards? No; not unless under certain very special circumstances. We have an arrangement by which naval officers are admitted to the private ward. I believe that the Imperial Government—the Naval Administration—pays for them.

925. Some of these private wards were established specially for naval officers? Yes; special provision was made for that purpose.

926. What has been the reason for the closing of these private wards to ordinary cases? I think the reason has been the diminution of the necessities which dictated their establishment. The reason for these private wards no longer exists with anything like the same force as formerly. At the time when they were established private hospitals of any consequence were practically unknown, but now there are several private hospitals where patients are received on payment of fees. There is rarely any special reason why a person should not go to a private hospital and pay the ordinary fees. Professor  
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927. The fees charged in private hospitals are not greater, are they, than the fees that were charged in the Prince Alfred Hospital? I think the nominal fee is rather less. I believe that 5 guineas is the usual fee for maintenance in private hospitals. Seven guineas was the full normal charge in the Prince Alfred Hospital. In the Prince Alfred Hospital the medical attendant gets nothing, but in a private hospital the medical attendant gets his fee. If we take these cases we interfere with the legitimate practice of the medical men in the city.
928. When you took private patients, did you not take certain sums as fees? No.
929. I thought there was some system under which an amount was set apart for the fees of the medical officers, and that the medical officers handed this back in the form of subscriptions to the hospital? When they paid 7 guineas, there were 2 guineas for the medical man and 5 guineas were considered the fee for maintenance.
930. Then the medical practitioners gave those sums back? They never received them; they were devoted to the funds.
931. They became donations? Yes.
932. Then £ per £ was asked on those fees from the Government? Yes.
933. What is the number of the nurses in the hospital? Sixty-seven.
934. Does that include the matron? I think it does.
935. What number is that per patient? I think it is practically one nurse for every four patients.
936. The reason why the Prince Alfred Hospital has a larger proportion of nurses than the Sydney Hospital is that they have a larger proportion of ophthalmic cases at Moorcliff? That is one cause. There are several causes. I think that the amount of operative work done at the Prince Alfred Hospital involves a considerable addition to the work thrown upon the nursing staff.
937. The amount of operation work at Prince Alfred Hospital is much greater than at the Sydney Hospital? Yes.
938. What is the number of resident medical officers? Nine, including the medical superintendent, the resident registrar and anaesthetist, and the resident pathologist.
939. Will you give us their rates of salary? The medical superintendent receives £300 per annum, and the other two that I have named receive £100 each. Then there are six resident medical officers, each of whom receives £50 per annum, board and lodging being included in each case.
940. Is this not a large number for the size of the hospital? I do not think it is. The resident pathologist has only recently been appointed, and he was appointed in lieu of a paid pathologist who did not live in the hospital. Therefore, his appointment did not involve any additional expenditure, except the amount for his board and lodging. We had been paying the pathologist, who resided outside the hospital, £100 a year. In many hospitals they have a paid pathologist. That leaves really eight whom you would recognise as ordinary members of the staff.
941. This seems a larger number than they have in the metropolitan hospitals in England? I doubt that. When I was resident medical officer in the Royal Infirmary, Edinburgh, we had 700 beds. There was a resident medical superintendent, who did not act as a member of the medical staff; he was the general superintendent. Then we had eleven resident medical officers, who were equivalent to our six officers here. In addition to those eleven, who were resident, we had, I think, four who lived outside, and who performed the same functions as the resident medical officers, and since that time several of those have been admitted as resident, so that the number of resident medical officers has increased considerably.
942. It has been stated, in regard to the Sydney Hospital, that their number of resident medical officers was large because they have not many students to help in the work;—I suppose that students do a large amount of dressing and other work in the Prince Alfred Hospital? They do; but that implies a certain amount of superintendence on the part of the medical officers.
943. What is the position of matron;—is she under the medical superintendent, or is she an independent officer responsible only to the directors? I think she is under the medical superintendent.
944. Can you state that positively? No. I think there is some difficulty in answering the question definitely. She is appointed by the Board, and cannot be suspended by the medical superintendent, but I know that she reports to the medical superintendent as well as to the house committee.
945. Does she engage and dismiss the nurses. The nurses are engaged on her recommendation and report, but they are really admitted by the house committee; and all the promotions are simply recommended by her to the house committee, and a minute of the promotion is made by the house committee.
946. Are the dismissals by the house committee too? Yes. Sometimes the matron may dismiss summarily and report to the house committee.
947. There being a right of appeal to the house committee? Yes.
948. What number of directors are there in connection with the Prince Alfred Hospital? There are two *ex officio* directors, who are the Chancellor of the University and the Dean of the Faculty of Medicine of the University. There are three Government nominees, and there are ten who are elected by subscribers.
949. Do the Government nominees attend regularly? They do.
950. The number being so small, would they exercise any real influence in the management of the hospital? I imagine that that is rather a question of their personality. As a matter of fact, I think they do, but I can imagine it being the other way. In my experience, they have exercised a very fair amount of influence on the Board.
951. *Mr. Barling.*] In the case of casualties, what determines the question as to which hospital the patient shall be taken? I think it is determined in a chance way. If the police are concerned I think they take the case to the nearest hospital. It depends much upon whom the onus of forwarding the case falls. It may be personal proclivity or convenience of locality, or the fact that the person is a subscriber to one hospital and not to another.
952. So there is no definite rule? No.
953. Are they treated as they are brought in without question? Yes, they are in accident or emergency cases.

- Professor J. T. Wilson. 954. No question is asked? No.
- 5 May, 1899. 955. Is any inquiry made as to the ability of the patient to pay? Inquiry is made into the circumstances of the patient.
956. I am referring to casual cases? The patient is given an opportunity of contributing.
957. But if payment is refused, are there any means of enforcing it? No.
958. Is it necessary that a bacteriological department should be attached to the hospital? I think it is necessary to have a bacteriological department. It is necessary to have sufficient bacteriological equipment to enable certain clinical tests to be carried on—bacteriological tests for clinical patients—but I do not think it is necessary that a department should be equipped in connection with each hospital to carry out public scientific researches in bacteriology. You can distinguish between those which have no immediate object in view, and certain procedures that are well recognised as having a particular object, as, for example, that of determining whether a particular bacillus is in a patient's throat. Such means ought to be found in every hospital that has to deal with diphtheria. A case might come in that is not known to be a case of diphtheria, and it is necessary to be able to distinguish such cases. That is different to having a bacteriological department equipped sufficiently to carry on independent researches such as ought to be carried on in connection with the pathological department of a University.
959. Is it not a fact that the Government are establishing a pathological or bacteriological department in connection with the Board of Health? Yes.
960. Then could not everything necessary in connection with bacteriological investigation beyond that which you have described as necessary to each hospital be done at such an establishment? No, I do not think it is workable.
961. Do not you think that one establishment would be sufficient to meet all the requirements of Sydney? It is necessary to have a scientific bacteriological department in the Medical School, but for public requirements apart from immediate hospital requirements, I apprehend that the Government bacteriologist will perform the functions indicated.
962. Does not the present hospital seek to go beyond that limitation? We have not done so at the Prince Alfred Hospital. During the last couple of years we have provided bacteriological equipment on a small scale just sufficient to do the work I have indicated as necessary.
963. You are aware that in the Sydney Hospital they have a very extensive establishment? Yes.
964. I think it is understood that the appliances are more complete in the Sydney Hospital in regard to bacteriological research than in the Prince Alfred Hospital? I think it is probably so. It is not merely a bacteriological department: it is a general pathological department as well.
965. What you have in the Prince Alfred Hospital is sufficient to meet all the requirements of the case? It may be said to do so.
966. What is the basis of the arrangement between the Medical School and the hospital? There is an Act of Parliament which concerns the government of the Prince Alfred Hospital, which provides that in addition to the University representatives on the Board of the Hospital, all appointments are to be made to the establishment by a conjoint Board, which consists of the Senate of the University and Directors of the Prince Alfred Hospital, and the Act makes a number of provisions which give the Senate certain power in determining the teaching arrangements in the hospital.
967. So that organically the two institutions are connected? They are connected organically under Acts of Parliament.
968. Referring again to the private wards, do you consider it an advantage to have private wards in the Prince Alfred Hospital? I think there are occasionally cases arising from special circumstances which cannot be always defined in general terms. There are several reasons for treating persons as private patients in a hospital. There are very few such cases, but they do occur occasionally.
969. I gather from what you have said that the use of these private wards has been abused to a certain extent? It has been abused in the past, but not so much as might be supposed. When we go back to the older conditions we find that there was so little private hospital accommodation that it required something like the provision of private wards in a public hospital to meet the case. I really think there is no abuse now. Every care is taken to prevent it.
970. Sir Edward Knox told us that the cost of maintenance of the patients is 28s. a week? Yes.
971. I suppose it would be higher in the case of those who occupy private wards? Yes; it would be higher.
972. How much? I do not know. In some cases it might mean an extra nurse, or the whole time of a nurse might be devoted to a particular case; but then the whole time of a nurse may be at any time devoted to a public patient, so there is nothing more required than in an ordinary case.
973. Do you think an average of 40s. a week would be the highest cost? I think the extra cost of treating a patient in a private ward would not be much more if one excludes special attendance. There would be more nursing required.
974. Suppose we say 50s.? Then I should say that would cover it.
975. You told us that the cost of a patient in a private hospital would come to something like 5 guineas a week? Not the cost, I said the charge.
976. Taking these facts into consideration that the total cost, excluding interest on capital, in a public hospital will be 50s. a week, and the cost in a private hospital £5 a week, plus the medical fees;—do you not think that, by having private wards, you to a certain extent supply a much felt want in connection with the small-salaried classes of the community? I have thought for some time that there is a gap in the hospital provision, and that it is the existence of that gap which leads to a good deal of abuse of the public hospitals. People go into hospitals who can afford to pay; people who ought really to be paying their medical man, who cannot afford to have the necessary treatment in private hospitals, but who are yet rather above the ordinary class of cases. The result is that they have to take advantage of the hospital, and they usually go into a public ward. No institution other than a public hospital could provide for private ward treatment at that price—50s. It is not that the private hospitals score. They are necessarily more expensive institutions, having to administer a smaller number of beds.
977. Do you not think that a real want will be met by having these private wards for that class of the community that I have indicated, and could not the difficulty be got over by making provision that certain fees should go to the medical officers who attend the patients in those private wards? Well, I think that the gap which I spoke of between persons who are well off and can afford to go to private hospitals and persons



persons who are proper subjects for hospital treatment should be filled up, but I cannot see that it is right that the public hospital system should fill it up. I believe it would pay as a commercial concern to run a paying hospital on those lines. I do not think that allowing medical men to receive fees in the hospital will solve the difficulty, because if you do that you give to certain medical men a monopoly of a certain class of patients because they happen to be medical officers of the hospital.

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978. You see the difficulty? I quite see the difficulty.

979. Cases have come under my observation of persons with salaries of £150 to £300 a year, some members of whose family get sick and have to undergo extremely expensive operations, the charge for which is simply ruin to them, and it seems to me that that class of the community have a right to be considered? Well the answer to that at the present time is this,—that in default of commercial enterprise providing for hospital treatment, they are, under present circumstances, fit patients for treatment in a public hospital, and they should be asked to contribute. In other words, the existence of this class is the only justification we have for charging hospital patients at all. It is because there is this class of people for whom no provision outside of the public hospitals can be made under present circumstances that we are justified in asking them to contribute something. We cannot help their being debtors to the medical profession. They must be under the circumstances. One great evil is, that when they pay their 30s. or £2 2s. a week they do not realise that they are debtors still to the charitable work of the medical officers of the institution; but under present circumstances I do not see how we can get over that.

980. The absence of this middle class hospital is ample justification for having private wards? Yes; but I do not think we should extend the private-ward system. If these patients come they must consent to come in the position of recipients of charity. It is part of their hard circumstances in life. Even though they are above the lowest classes, they must consent to take their places in the wards, because they are recipients of charity to a certain extent. They are not beggars, but they are debtors to the community indirectly, and they are debtors directly to the medical men.

981. The community would, I think, feel they were doing good work in assisting them? Yes. They are just as deserving of assistance as others.

982. Do you notice any defect in the management of the hospital generally; and, if so, what, in your opinion, is the remedy? That seems a very wide question—one which I should not like to answer.

983. You may have some general ideas on the matter which might be useful to us? I should like to say one thing, and it is that I think the system of management by directors, who are really trustees for the community, is a good one, and that to attempt to substitute some other system for that system of quasi-independence—an independence which is controlled by public representation—would be a bad move.

984. It would tend to dry up the sources of private charity? I think it would, and I think there is, perhaps, an advantage in having this kind of control and management, because directors are personally continually in contact with the administration in a way that a more centralised administration would not permit of.

985. Your idea is that the present system is working very well? I think that in principle it is very good indeed. No system is perfect, but there appears to me at present no great defect in regard to this.

986. Do you think the arrangement for the treatment of ophthalmic cases is sufficient, or creditable to the Colony? I think that the capacity of the hospital for dealing with ophthalmic cases is too limited.

987. Speaking particularly and generally? I think that in the Prince Alfred Hospital we have not quite sufficient accommodation. We cannot afford to give enough beds. We are in the position of having more departments than a hospital of 236 beds warrants. Every special department requires a certain number of beds, and if we have half a dozen departments we cannot afford to give a fair number of beds without trenching very much upon the great general departments of medicine and surgery. As regards the general question, I am not sufficiently versed in it.

988. Have you been to the Moorcliff Hospital? No.

989. Have you given any thought to the question of the control of our charitable institutions in the matter of the Government subsidy;—do you think the Government, who contribute the principal part of the subsidies, have sufficient control? I think that the Government representatives on the Board of Directors ought to be adequate to represent the public interests. I must confess that I think that the life nomination of Government representatives rather tends to loosen the control. You cannot have the Government representatives always alive to their work. I think our Government representatives are very much alive. We have good representatives, and they do their work exceedingly well, but I think that the system of appointing three Government nominees for life on the Board is perhaps not altogether satisfactory from the point of view of the Government. I do not think, however, that anything would be gained by greatly increasing the representation. We have three out of some fourteen representatives, and I think that if the representatives are really doing their work that is quite ample representation. I should not object to more, but I think it is sufficient. I do not think the Government have anything to fear.

990. Then your idea is that the practice of life nominations tends to weaken the actual representation of the Government on the Board? I think it has that tendency, and I say so the more readily that I am quite sure that it is not the case with our representatives.

991. *Dr. Manning.*] The admission of paying patients to the hospital restricts the number of beds for necessitous cases? I think it restricts the number of beds for non-paying cases; but my contention would be that amongst the people who can afford to pay something we may meet with quite as necessitous cases in the strict sense of the word—necessitous from the point of view of hospital treatment, necessitous in the sense of poverty. I quite admit that if a paying patient occupies a bed, that bed is not available for a person who has nothing in his pocket. But that is not the point—the point is what is necessary for hospital treatment.

992. *Mr. Barling.*] Do the fees of the students go to the Hospital Fund? No, they do not.

993. *Dr. Manning.*] Is there anything else that you would wish to say? I should like to point out that the donations from the out-patients' department have decreased very considerably. In 1887 we got £300 from the out-patients' department. That was money put into the poor box. I think they were asked for it. I would point out that that £300 should be £600 at present because our numbers have doubled, but now we actually only get £100. We got only £100 last year, as against £380 in 1887, with half the number of patients that we have now. I speak of 1887 because in that year a careful inquiry was made extending over three months as to the number of out-patients who were able to pay. I should like to express my opinion that the out-patients' department of the hospital is on a totally different basis from the in-patients'

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in-patients' department. The medical and surgical requirements of non-indigent out-patients might constantly be satisfied by clubs and the payment of small fees; so we hold that the out-patients department is wholly for destitute people. It is not merely a question of that necessity which I was speaking of a few minutes ago. If they can afford to pay they can afford to be members of a club. An inquiry was made, and it was found that about one in forty-two were able to pay something. It was reckoned that one in forty-two of the patients who come into the out-patients department had no right to be there. It was after all a very small proportion as compared with what was expected. It had been thought that the abuse of the out-patients' department was much greater than it turned out to be. I mention that because at that time we were receiving more money. Now we receive very little. The circumstances of the community have altered considerably, but I imagine the abuse would be found not greater now than it was then. The money fell off from 1892. In 1892 we were getting about £17 a month, and this last year the receipts have varied from £4 to £8 a month. With regard to the beds, I would point out that the cost per bed from 1893 up to the present time has varied from £73 to £67 10s. Prior to that period we were not in the habit of deducting the cost of the out-patients' department, so there appears then to have been a sudden drop. It was due, however, to a different method of calculation. The average for the seven years before 1891 was £86 odd without the deduction referred to.

THURSDAY, 11 MAY, 1899.

[The Commission met at the Offices of the Public Service Board at 2.30 p.m. o'clock.]

Present:—

G. A. WILSON, Esq. (PRESIDENT).

F. N. MANNING, Esq., M.D.  
J. POWELL, Esq., J.P.

J. BARLING, Esq., J.P.  
CRITCHETT WALKER, C.M.G.

Ernest Maynard Pain, M.B., Ch.M., Syd., J.P., sworn and examined:—

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994. *President.*] You are medical superintendent of the Prince Alfred Hospital? Yes.
995. *Dr. Manning.*] Will you tell us the number of nurses at the Prince Alfred Hospital? Excluding the matron, there are sixty-six at present.
996. How are they appointed? They are appointed by the house committee, on the recommendation of the matron and the medical superintendent.
997. The medical superintendent is consulted? Yes; before the recommendation goes to the house committee.
998. And how are they dismissed? They are dismissed by the matron, with the sanction of the medical superintendent, who reports the matter to the house committee—that is, in cases of summary dismissal; but when notice is given, the inefficiency or other reason for dismissal is reported by the matron after conference with the medical superintendent, to the house committee, and the cases are dealt with by the house committee.
999. Will you give us the salaries of the matron, the probationers, and the nurses? The matron gets £250 per annum; there was an increase of £50 made two years ago.
1000. Is there a sub-matron? No. The full sisters get £60 per annum; probation sisters, £50, on probation for six months; charge nurses, £46 per annum; ward nurses, £40; third-year nurses, £32; junior nurses, £24; probationers, £16.
1001. Then they are probationers for one year, junior nurses for one year, and full nurses for one year? Yes.
1002. What are the hours of duty for the nurses? Generally speaking, the hours of duty with the majority of the nurses are from 6 a.m. to 2 p.m., with half an hour for the two meals included; then off duty from 2 till 5.30, then on again from 5.30 to 8.30.
1003. How many hours a day does that make? Roughly speaking, ten hours. The next day the hours will be arranged somewhat differently with the same nurses. They are on in the afternoon and in the morning, but they are off in the evening after half-past 5. Then there are special nurses, whose hours of duty are from 6 a.m. till 6 p.m. They are in charge of cases for whom a more frequent changing of nurses would be far from beneficial.
1004. I suppose that these nurses get special leave, so that their average hours do not exceed ten? They have opportunities of resting while on duty oftener than the others.
1005. What other holidays do they get besides the three hours a day? The holidays are arranged according to the rank of the nurse. A sister gets a month on full pay. The other nurses get three weeks on full pay; but if they are going to another Colony for a holiday, they are allowed, by special leave of the house committee, to have an extra week, for which, however, they do not get paid.
1006. And what monthly leave is there? They get one whole day and night and one day from 10 a.m. every month.
1007. What amount of scrubbing and cleaning have the nurses to do? The scrubbing and cleaning that the nurses have to do is confined entirely to the day-rooms, lavatories, and bathrooms, the handles of doors, taps, ward tables, mosquito-curtain supports, and the beds. After a case is discharged the beds are washed with carbolic acid. The floors are done by the scrubbers.
1008. Then you have a staff of scrubbers or wardmaids? Yes; we have a staff of scrubbers. They, with the exception of one, do not work more than five days a week, and they are paid by the day.
1009. Do you consider that the nurses are overworked; and are they satisfied with their position? Except so far as stress of work, involving extra duties, is concerned, the nurses are, as far as I know, quite satisfied with their hours. I mean by stress of work, the necessity that exists for having nurses in the out-patients' department to assist the physicians and surgeons—nurses who would otherwise be off duty. For instance, a nurse who is on duty in the morning, and should be off in the afternoon, is sometimes sent to the out-patients' department instead of being let off. That is the only trouble that the nurses have.
1010. Has there been any outcry for a diminution of the hours? No. At the time there was an outcry in the Press in regard to the over-working of the nurses, some reporters came to the hospital, and they were surprised to find that the nurses, as a general rule, were not ready with complaints as to overwork, but were, on the whole, quite satisfied, except with regard to the exceptional circumstances which I have mentioned. If all the hours of duty could be kept absolutely as they are arranged they would have no cause for complaint, but it seems impossible under present circumstances.

1011.

1011. It would be impossible, under any circumstances, in a calling like that of the nurses, to do away with occasional overtime? I think so, certainly. E. M. Pain,
1012. Are there many applications for the positions? A very great number apply. Some 280 odd applied during 1893. 11 May, 1899.
1013. And how many of these are found fit for work? I could not give the exact number, but not more than one in three is found suitable by the matron. Those that are found suitable have their names put down on the register after being brought to me for examination, and they are sent for as their turn comes.
1014. How long have they to wait as a rule before they can get employment? In some instances they wait as long as two years.
1015. I suppose a good many of those who are found suitable to outward appearance break down at an early stage? Yes; a certain number do.
1016. What is exactly the position of the matron with regard to the superintendent? Everything that the matron does in the hospital of any importance she must report to the medical superintendent. She is responsible to him for the discipline and management of her department.
1017. Then she does not go to the committee direct, but she addresses the committee through the medical superintendent? Yes; except that from time to time she furnishes reports of her own to the house committee, which, however, are only furnished after conference with the medical superintendent.
1018. You have wardsmen in addition to nurses? We have one wardman.
1019. Only one? Yes.
1020. What is his pay? £110 per annum. It was raised recently on account of an increase of his duties.
1021. With regard to ophthalmic cases, I suppose they are a class of cases that are treated without very much cost? I think that the whole department of ophthalmic work is the least expensive.
1022. Why? For one reason, because they do not usually require a great deal of dressing, and they do not require so many nurses, being nearly always out of bed after the first few days after an operation. The nursing is less, and the dressing required is less, and the patients being up and about they are frequently able to do small services about the wards which otherwise would have to be done by the porters.
1023. Is your pathological department at the Prince Alfred Hospital fit for your needs? As far as accommodation is concerned, I think it is quite sufficient; but there is need of an expenditure of £15 or £20 to fit it up with more modern appliances which we are without at present.
1024. You do not attempt anything in the way of original research;—you merely work to verify diagnoses for clinical purposes? Entirely clinical diagnoses.
1025. Do you think it is advisable that you should have a laboratory to carry on original research? I think, from the point of view of the hospital, it is not necessary, and especially not in the case of a hospital where within easy distance there is a thoroughly equipped laboratory at the medical school.
1026. We have been told that your infectious diseases wards are unsuited to your needs;—will you tell us how they are occupied, and what more accommodation (if any) is required? Of course, owing to the occurrence of epidemics, the circumstances in connection with the infectious wards differ very much. As a general rule, our infectious wards are insufficient, because we frequently have to admit cases of septic miscarriage and other cases which require isolation, and frequently they cannot, being of different sexes, be put in the same cottage. We often have to deal with twelve or fifteen cases in six cottages, and in no part of the hospital do I find greater difficulty of management than in that department entirely on account of lack of room.
1027. The majority of cases sent to these wards are cases that occur within the hospital—not cases that are sent in from the outside? With the exception of miscarriage cases, which are septic; puerperal cases, which are refused at almost every other hospital; and diphtheria cases, which are taken in one cottage when the diphtheria hospital is too full, and also when they are at an age beyond that at which they could be admitted into the Children's Hospital. I have had also adult cases of diphtheria sent to me by the Government Medical Officer at times when it was impossible to send them to the Coast Hospital.
1028. If there was a well-arranged Infectious Diseases Hospital outside, and cases that should be admitted to your wards came only from within the hospital, would the accommodation then be sufficient? I think it would be.
1029. We are informed that there are nine resident medical officers? Yes.
1030. Are they fully occupied? I think we could not administer the hospital under present circumstances with a smaller staff; but we could administer a larger hospital, a hospital with more beds in it, with the same staff. I mean that, although a resident medical officer is occupied all the day practically, he could spend more time in the hospital if it were required; but if you take one man away, the work could not be done satisfactorily.
1031. Do you get much help from the students? We get help from them in regard to the dressing of patients; but seeing that this frequently requires the superintendence of a resident medical officer, the actual assistance to the hospital does not amount to very much. This is especially the case when it is remembered that there are certain periods of the year when the students do not do any dressing—during certain vacations.
1032. The majority of the students at the Medical School in Sydney attend the Prince Alfred Hospital? I think that before qualification they must have attended at the Prince Alfred Hospital, or at some other hospital. I know of no case of a man having graduated without having attended the Prince Alfred Hospital for some time.
1033. So that during some part of their time the resident officers are occupied in teaching? Yes; it is a duty provided for in the by-laws.
1034. Do you consider that the accommodation at the hospital is at present sufficient for the requirements of the public? No. Under present conditions I think the accommodation is not sufficient, and I say so because cases absolutely deserving of hospital treatment are kept waiting, often to a detrimental degree, on account of there being a lack of room in that part of the hospital to which they should be admitted.
1035. The wards to which they are suited are full, and they cannot be admitted into their wards owing to their sex or classification? Yes; and I would say that what we suffer from more than anything is the absence of room to meet unavoidable fluctuations.
1036. Are there any other matters in connection with the hospital that you desire to place before the Commission? There are several matters. There are difficulties of management in connection with the Board of Health, and in connection with certain other hospitals, and there are present requirements which cannot be supplied for lack of funds. With regard to the admission of cases on Government orders, matters

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matters are in a somewhat anomalous position. At any time during the day, except during the hours of 10 and 12, I am unable to get an order for the admission of a patient who is, however, in quite a fit state to go down to the Board of Health and personally apply for an order on my recommendation. In certain cases it might be to some extent detrimental to his condition to allow a patient to wait until 10 o'clock the next day; he must, therefore, be admitted for nothing, because under the present state of affairs, unless a patient is sent by the Government Medical Officer, or is sent to him and then sent back by him to the hospital with an order, no order is granted. I have a case in point which shows the anomaly of the position. If, on the other hand, a medical practitioner outside wishes to get a patient into the hospital, and takes the right course, of which most practitioners are ignorant—that is, to send friends of the patient with a letter to the Board of Health—an order for admission is granted at once on that letter, even though the Secretary for the Board of Health has not seen the patient; a letter from me, however, under the same conditions will not be considered at all. Even a letter being brought to the hospital from a doctor outside, which certifies that a patient is fit for hospital treatment, will not be considered unless it is taken to the Board of Health before the patient is admitted. I am referring, of course, to cases which are not brought to the hospital, urgent cases, whose friends come to ask for admission. What I should like to have would be the same privilege that is granted to every other medical practitioner—the right to send a letter to the Secretary of the Board of Health with the patient or his friends, stating that he is suffering from a certain disease, knowledge of which I should glean from himself or his friends, and to be able to get an order for his admission. At present I have to admit such cases without.

1037. The difference between the two cases seems to be that in one case the doctor has seen the patient; in the other you have not seen it—you only take the opinion of friends? Perhaps, I have not put it exactly as the case stands. It might be a case that I have seen before—a case in which I know what the disease is; perhaps, it is an out-patient who has been suffering from a certain disease—one who is too ill to come to the out-patients' department. I may know from reference to the books what his disease is, but unless he gets a letter from outside he has to be admitted as if it were an urgent case.

1038. *Dr. Manning.*] It is suggested that the hospital admits a certain number of cases for the £ per £ subsidy obtained from the Government? Yes; and as a general rule there are a very great number of patients admitted for whom no payment is asked under any conditions; but at present, if a patient whose friends only have applied seems to be an urgent case he is admitted without question.

1039. What is your next subject? I think if it were possible in this connection to inform medical practitioners generally of the fact that, instead of sending direct to the hospital, they should send the friends of the patient direct to the Board of Health at any time during the day, it would overcome the difficulty to a very large extent. At present only a few know that they can do so, and that they ought to do so. With regard to the admission of patients from places where there are already cottage hospitals, I have met with much difficulty, more especially in connection with the hospital at Balmain. They have a method of management—I am not aware of its exact nature—by which are excluded a good many cases which ought to be treated in a local general hospital; for instance, certain cases living almost next door to the Balmain Cottage Hospital have been sent to the Prince Alfred Hospital. I have made inquiries as to why they could not be admitted into the Balmain Cottage Hospital, and in one instance I was told that they did not admit heart cases, the patient had, therefore, to be brought to the Prince Alfred Hospital; in another instance I was told that they admitted no cases of typhoid, and they would not admit certain cases, although they happened to live close to their own hospital.

1040. Then you do not think that these local hospitals are doing all the work that they might do to relieve the metropolitan hospitals? I do not think so. More especially is this the case with regard to the Balmain Hospital, where they frequently have a large number of empty beds. I never ask them to take a case unless we are so full as to make it difficult to admit it. In another case, in connection with the North Shore Hospital, a doctor made application for the admission of a patient, and his application was received by the matron, who prepared a bed; but when the patient was brought in from near Mosman's Bay to the North Shore Hospital, the honorary physician refused to admit it on the ground that it was not a suitable case. The case was then brought to the Prince Alfred Hospital, and some days afterwards died. She was said to be suffering from typhoid; but it was found that she had been suffering from severe ulceration of the intestines, and there was no reason why she should not have been admitted to the nearest hospital, except that it was not a very nice case to have. I should like to say, in regard to the overcrowding of the hospital, that it seems to me that it is chiefly due to the constant applications of patients from the country, who are sent frequently by Members of Parliament with the Colonial Secretary's orders. They frequently have no friends in Sydney, and nowhere to go; they then have to be taken in at once, even though their cases are not urgent, since having no friends, they cannot remain outside.

1041. Then it would point to the fact that the country hospitals are not doing all the work that might be expected of them? Although I have no figures to justify me in saying so, my experience has been that a very large number of patients, when asked why they do not go to their own country hospitals, say that they do not care about the doctor there, or give some other reason. It is not that the country hospitals are over full. I have made a tabulated statement as to some of the needs the hospital, thinking that, possibly, the Commission would like to know of them. There are things which cannot be obtained otherwise than through increased subscriptions, owing to the fact that we have not sufficient money. There is a fuel-economiser, the cost of which I put down at £125, to do away with smoke, and to save expense in coal; a type-writer, for doing a good deal of official work and saving printing expenses; two extra telephones; furniture for sitting-room, and new lift (the present lift was not new when put in, and frequently goes wrong); appliances for the pathological department, £20; two wards require painting; and the fitting up of one cottage as a strong-room is necessary; we require a drying apparatus; a junior assistant dispenser is becoming almost an absolute necessity. Then, with regard to the increased accommodation, I would mention the waiting-room, which was suggested years ago by Sir Alfred Roberts, for visitors—friends of the patients, who have to wait frequently some considerable time—as well as the two pavilions previously spoken of, a clinical lecture theatre, and an honorary medical officers' room. I might mention, with regard to the accommodation for the extra nursing staff that would be required if there should be any increase in the size of the hospital, I think it could be very well arranged to have it at the ends of the pavilions, where there are now private wards. I have made a comparative table of the cost per bed of the 236 beds that we have at present, and the staff increase which would be required if the hospital were enlarged, and the cost of these 114 more beds in the same connection.

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1042. What do you estimate that it would cost per patient in the hospital with 128 more beds? I have not been able to make it out with regard to maintenance. As regards increase in the staff, it would only require a dispenser, and an increase in the nursing and housekeeping departments. At present, for the resident medical officers, dispensary, secretary and clerks, tradesmen, porters, nursing, and housekeeping departments, the average cost is £31 15s. 10d. per bed. If there were 114 more beds—I say 114 because it would, perhaps, be necessary to take some of the ward space for out-patients work, and that would lower the number—the 114 beds would cost £10 18s. 3d. There would be no increase in resident medical officers, and no increase in the secretary's department.

1043. To put it shortly, your opinion is that with an increased number of beds, the cost per head for maintenance in the hospital would be considerably reduced? Yes; from the fact that certain departments could work the larger hospital without any increase in the staff.

1044. What does the laundry cost? I can estimate the whole of the cost, with the exception of the carrying of the clothes to and fro by porters, also the employment of a fireman to look after the engine, which I put down at about £100 a year. The total cost is about £650 per year.

1045. *Mr. Barling.*] With regard to the nurses, could you tell us what percentage of the probationers leave during the first month and during the first year respectively? It is very difficult to give the percentage without actually knowing the figures. I should say that more leave within the first month than leave within the first year.

1046. What percentage would it be for the first month, would it be half? No, not nearly half; I should think not more than 10 per cent. for the first month.

1047. Then I suppose for the first year not more than 1 per cent.? I should think 5 per cent.

1048. I understood you to inform Dr. Manning that you did not think the nurses work pressed very hardly upon them? I do not think it does.

1049. The students pay a certain fee for being permitted to practice in the hospital;—do those fees go to the Hospital Fund? No; they have always been divided between the honorary medical officers.

1050. Have any abuses come under your notice in regard to the private wards in your hospital? I should say from my experience in the management of the private wards, which does not extend over more than a year, that there has been no abuse of them. I have here a return of all the patients who have been admitted, and the conditions under which they were admitted to the private wards for the last twelve months. At present any patient who wishes for a private ward has the onus of proving to me that his case is suitable from every point of view, that is, the kind of treatment required, the financial condition of the patient and his social condition. If I am perfectly satisfied that the case is suitable for a private ward, and is urgent, I admit it, then report the matter for confirmation to the house committee. If, however, it is a case which can wait I would put it off till the house committee can deal with it, and the house committee decides what the patient shall pay after looking into all the circumstances of the case.

1051. Then what are the fees? The average fee is about 4 guineas. I say the average, because the majority of the cases are those of naval officers, and in their case this fee is arranged for by the naval administration. I have a short statement showing exactly the number admitted during the twelve months from the 1st April, 1898, to the 1st April, 1899. Seven made no payments; 1 paid 1 guinea a week; 2, 2 guineas a week; 2, 3 guineas a week; 20, 4 guineas a week; and 1, 8 guineas a week. The case which paid 8 guineas a week was one of acute alcoholism, he was in for a few days at the urgent request of Dr. McCormack.

1052. Do you think there is a want of wards of that character to meet the cases of those in a middle station of life who have small salaries and could not afford to pay the high fees charged in private hospitals? I do, and until some commercial enterprise of that kind to establish a paying hospital is instituted it will be impossible to do away with the paying system in our general hospitals, because there are numbers of cases that would go into a hospital where they could pay *pro rata* for the time they were there who must otherwise come into the general wards of general hospitals.

1053. Has it come under your notice that people able to pay for maintenance and medicine have been admitted? Yes; and after all possible inquiries have been made I have found cases of patients who have obtained admission, but who were quite able to pay outside fees. Such cases, however, are not very frequent. It is only when incorrect information has been given to me that they have been able to get in.

1054. Of course, you are aware that well-dressed people often come for treatment, which shows that they ought really to contribute something towards their support whilst in the hospital, or for their medicines if they are outdoor patients? Yes; the outdoor patient department is exceedingly difficult to manage, for this reason. If a man in receipt of fair weekly wages has any member of his family ill, and they do not belong to a club, their only means of getting treatment is in the out-patients' department. The remedy seems to me to lie in their joining clubs, however, since no club will take a patient who is ill we are bound to treat them while they are ill. The practice I have adopted wherever I find a case which ought to belong to a club is to recommend them to join a club. I tell the patient that he will be treated as an out-patient until he is well, but that in future he will be expected to belong to a club.

1055. What relationship with regard to hospital admission do Friendly Societies hold in connection with the hospital? There are no Friendly Societies which have a right to send patients with orders to the Prince Alfred Hospital. Their cases are treated exactly in the same way as any other cases. If a case is sent deserving, financially, hospital treatment, and needing, medically, indoor treatment, the case is admitted, no matter where it comes from.

1056. Do not the Friendly Societies pay a certain sum into the hospital fund for the right of sending members in? They have no right to recommend any patient. They are subscribers to the hospital, but it does not give them that right. The Oddfellows Hospital Fund, organised some years ago, claimed the right to recommend patients to any general hospital, and undertook to pay 15s. a week whilst they were there for maintenance, but the Prince Alfred Hospital would not accede to the arrangement. The only exception is the case of the Railway and Tramways Employees Fund, which may be looked upon as a Friendly Society. They have made arrangements with the Prince Alfred Hospital, whereby if a case is suitable, and this has to be certified by a doctor outside, it is admitted, the fund will pay 15s. a week, and a proportion of the excess of the savings at the end of the year.

1057. Is it a large sum? This last year it was about £300 altogether. The only exception other than that is the case of the Helensburgh colliery. They have a right, by virtue of a payment of £130 a year, to have any miner who is injured in the colliery admitted at once without question.

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1058. So that they may always maintain a patient in the hospital? Yes. The Railway Commissioners, by virtue of a payment of £60 a year, have a right to send in a patient as long as their bed is unoccupied.

1059. You are aware that in Sydney Hospital they make their outdoor patients pay a fee of 1s., but you have not adopted that rule in the Prince Alfred Hospital? It has been frequently suggested, but the proposal has always met with such contention that the system has not been adopted.

1060. You are aware that in connection with the Sydney Hospital these payments produce something like £600 a year? Yes.

1061. Do you know any objection to the practice being adopted at the Prince Alfred Hospital? I think the objection is that it gives the patients the idea that they are paying for what they are getting, and we hold that the out-patients' department should be for people who are destitute. People who are not destitute can obtain outdoor treatment at the hands of club doctors.

1062. Dr. Manning asked something about ophthalmic cases;—are you aware what provision is made in Sydney for the treatment of ophthalmic cases besides that at the Prince Alfred Hospital? I am aware of no other, beyond that I understand that there are about seventy beds for ophthalmic cases at the Mooreliff Hospital.

1063. *Mr. Walker.*] I think you said that some inconvenience was occasioned through patients being brought down from the country on the recommendation of Members of Parliament and on orders issued from the Chief-Secretary's Office—can you tell me in what way inconvenience arises? From the fact that we are overcrowded with surgical cases, and nearly all those cases are surgical.

1064. Do you not get paid for Government patients? Yes; I am only speaking of the difficulty arising from our having no beds vacant.

1065. Suppose that a patient came down without an order from anybody, and applied at the hospital, would that patient be admitted? Yes; if it were an accident, without question. If it were an urgent case, not an accident, the patient would be expected to promise to pay what he could, and then be admitted; but if he could not pay anything he would be admitted at once.

1066. How many patients do you think you get in a year on Government orders? A little over 110 per month. In 1897, the number admitted under Government orders was 1,306; in 1898, 1,359.

1067. And the majority of these orders from the Health Board? Yes, from the hospital admission Depot.

1068. Can you give any idea how many who come there are sent by Members of Parliament? I have no actual figures to guide me, but, generally speaking, I should think not more than a quarter of them.

1069. There is a general impression that Members of Parliament run a tremendous lot of people into this hospital, which I do not think is the case? I do not think the cases they send are other than deserving cases. My contention is that, the difficulty is an administrative one. They are nearly all surgical cases, and we cannot take them in at once.

1070. You have no other reason than that which you stated for saying the patients go into the Prince Alfred Hospital because they could not be properly attended at a country hospital? I do not think it is generally because they could not be properly attended.

1071. You said they could not be properly attended in the country? The cases vary a good deal. Sometimes patients come to the Prince Alfred Hospital after they have been a considerable time in a hospital in the country, when the doctor wishes for a further opinion, or for more skilful treatment. Most of them come without the knowledge of the doctor, because they prefer to have the more skilful treatment which they can obtain at the Prince Alfred Hospital, instead of treatment by local men.

1072. Then you do not think it is altogether because they cannot get treatment in the country? No; they are nearly all surgical cases, and they come for the better treatment that is to be got at the Prince Alfred Hospital.

1073. You do not see any way of stopping this sort of thing? No, I do not see any way, because the patient, being sick, must, as a general rule, be admitted.

1074. *President.*] As regards the requirements you mention, have they been approved of by the Board? Yes.

1075. It is a question of want of money? Yes.

1076. What is the amount involved for the supply of those immediate requirements which you have specified? A little over £400.

1077. That is for the drying apparatus, the new lift, and the typewriter, and so on? I am doubtful about the new lift. I have put it down at £150, but I think that is a very low estimate.

1078. The amount will be £400 or £500? Yes.

1079. You cannot get these things for want of funds? No.

1080. Do you wish to say anything more? Yes, in reference to the out-patients. The Hospital Saturday Fund Association apparently gives the subscribers who are employed in certain industrial establishments the idea that they can have indoor or outdoor treatment as they please. I meet with this difficulty: some patients come with Hospital Saturday orders for outdoor treatment, and I am told by the Board to treat them as ordinary out-patients; that would be all right, were it not that it really makes the Hospital Saturday Fund a huge club, the doctors of which are the doctors of the hospital, which is to provide medicine and treatment. Whilst the Hospital Saturday Association is allowed to give this out as the advantage to be gained by subscribing, there will always be a certain number of cases that ought not to be in the out-patients' department, who, however, because they do not belong to any club, must be admitted for treatment. With regard to the admission of out-patients, after they have been to the secretary's office, where all information as regards their financial position has been obtained, they are drafted to their respective departments by one of the resident medical staff, who makes further inquiries as to their financial condition; and if he is not satisfied that they are suitable persons for admission, I make further inquiries, and frequently am able to weed out unsuitable patients.

1081. What you say in reference to Hospital Saturday is in reference to the large establishments? I mean that in the large establishments employees are given to understand that by subscribing a small sum they can obtain these advantages, whereas otherwise they would probably subscribe to a club.

1082. That works to the prejudice of the hospital? Not so much that, as to its abuse as a charitable institution.

Thomas Jesse sworn and examined:—

1083. *President.*] You are Secretary of the Prince Alfred Hospital? Yes.
1084. *Dr. Manning.*] When are the Directors elected? They are elected annually. Five of them retire annually by Act of Parliament.
1085. They are elected at the annual meeting? Yes.
1086. And what is done when there are more candidates than there are vacancies? I do not think that has ever occurred.
1087. Will you give a list of the paid officers of the hospital? Yes; I have brought a list of the paid officers, giving their salaries. [*List produced.*]
1088. How has the Samaritan Fund been accumulated? By subscriptions. We started with a nucleus consisting of moneys belonging to deceased patients. Mr. Walker gives a subscription every year. The fund has not been operated upon since we started.
1089. So the fund exists, but no money has been expended from it? No.
1090. What is the total amount of the fund now? £31 4s. 8d.
1091. We understand that you can give us some information with regard to the Endowment Fund? All that I can give you is the amount.
1092. The Chairman promised that you should furnish us with the amount of the funds, the amount that had been set apart by the donors as an endowment fund, and the amount that had been placed to the fund under the by-laws;—have you that information? There is a list of subscribers to the Endowment Fund in the report.
1093. We wanted the amount that has been placed to the fund under [the by-laws of the hospital, and the amount placed to the fund under the will of the donors, and the conditions attached to their gift? I should have to prepare a return showing it.
1094. What special efforts are made to raise funds for the hospital? We have collectors.
1095. Do you make any other special efforts? No. We have had two balls since the hospital was opened.
1096. Are any special letters written to people who you think will subscribe? Yes. We send out a circular reminding people that subscriptions are required, and embodying the privileges given under the by-laws.
1097. How are the accounts audited? They are audited every quarter by a paid officer and by the honorary treasurer.
1098. Have you any accounts of the amounts spent on the hospital buildings? Yes; the amounts spent on the hospital up to 1886 was £164,650.
1099. How much of that amount was contributed by the Government? £118,499 19s. 4d.
1100. Does that include the Nurses' Home? No.
1101. What has been spent on the Nurses' Home? The sum spent has been £15,161 7s. 1d., including the cost of furniture.
1102. How much of that was furnished by the Government? £5,000.
1103. How much of the debt on the Nurses' Home remains unpaid? £1,737 5s. 6d.
1104. That has to be added to the £15,000 you have just mentioned? Yes.
1105. What is the area of the land on which the hospital stands? Twelve acres.
1106. Can you account for the falling off in the payments made by the out-patients? During the past few years, there has been a very great depression in Sydney, and the people are not so well off as they were a few years ago when their subscriptions were larger.
1107. You have a collection box in the out-patients' waiting-room? Yes.
1108. Have you any means of calling the attention of the patients to it? I would not say that their attention is called directly to it, but all the patients are asked to contribute something to the poor box.
1109. When are they asked? At the time when they are being registered.
1110. You ask them at that time for voluntary contributions? Yes.
1111. How much was the amount received last year? It was under £100.
1112. What is the highest amount that it has reached? We used to get a couple of hundred pounds from the out-patients years ago.
1113. Has it ever been as high as £300? I think it was one year.
1114. Does the inquiry as to the means of the applicants rest with you or with your department? The first portion rests with the secretary of the department and the remainder with the medical superintendent. Perhaps I might as well explain how they are admitted. The patient is given a form when applying for relief in the out-patients' department, and that has to be signed by a subscriber, an honorary medical officer, or the clergyman of the parish in which the patient resides. The patient then brings the form to the hospital and presents it at my office, and is then subjected to a very fair examination as to his or her means, &c.
1115. *Mr. Barling.*] With regard to raising funds, do you think that every legitimate source of revenue has been tried? I do not know; that is a question for the directors.
1116. I am asking for your own opinion;—do you know of any way by which the revenue of the hospital could be increased? I do not.
1117. I understand that the Sydney Hospital's list of subscribers is larger than yours;—how do you account for that? When the Prince Alfred Hospital was opened the Sydney Hospital had a revenue of between £4,000 and £5,000; then when the Prince Alfred Hospital opened we had to try and establish a subscribers' list of our own. Naturally, we could not come near the amount of the Sydney Hospital lists; we never could exceed £2,000 a year from outdoor subscriptions.
1118. The reason of the difference is that the Sydney Hospital is a much older institution than the Prince Alfred Hospital? Yes; they had the start of us.
1119. Is it not possible that the efforts put forth by the different hospitals overlap one another;—is there not a waste of energy in the method of collecting? I do not know that I could say that; because the subscribers have been pretty generous to the Prince Alfred Hospital, notwithstanding that many of them had been subscribing to the Sydney Hospital.
1120. Do you employ a collector? Yes.
1121. I suppose the Sydney Hospital also employs a collector? Yes.

T. Jesse.  
11 May, 1890.

- T. Jesse. 1122. Is there not an overlapping of energy in that respect? It would appear so; but if you mean that one collector could do the work for the two hospitals, I do not think that practicable.
- 11 May, 1899. 1123. That could not be;—but does it not point to the necessity or advisability of having the direction of the two hospitals put under one control? That might be done with advantage, I think.
1124. Have you anything to suggest by which you think greater funds could be obtained for your hospital? No.
1125. Every effort is put forward, you think, that can be, to get funds? I do not think I could suggest anything in that way.
1126. *Mr. Walker.*] The area of this land on which the buildings stand, you say, is about 12 acres? Yes.
1127. Does it belong to the hospital? It does now; it belonged to the University at first. It was granted by Act of Parliament.
1128. *Mr. Powell.*] When you say it belonged to the University, do you mean that it was Government property? Yes.
1129. You spoke of the amount given by the Government to the hospital; does that value form part of that money? I could not say.
1130. Is that value in addition to the money that is received? No; that is not taken into account at all.
1131. The Government, or someone, gave the hospital 12 acres of land;—is the amount which you say the Government have given in money, partly represented by the value of that land? To the best of my knowledge and belief it is not.

George Wigan, M.R.C.S., Eng., sworn and examined:—

- G. Wigan  
M.R.C.S.  
11 May, 1899. 1132. *President.*] Are you the medical officer at Armidale? Yes; I am serving my twenty-fourth year at the hospital.
1133. *Dr. Manning.*] You have taken great interest in the hospital at Armidale? I have.
1134. How long is it since it was first founded? I cannot tell you that.
1135. It was carried on for some time on one site, but lately a new hospital has been erected? Yes.
1136. How long ago? I think it was in 1882.
1137. You planned that hospital? I did.
1138. And you have had a good deal to do with the management of it since? Yes.
1139. Have you any idea what the cost was? Between £3,000 and £4,000; that was the original cost. Of course, there have been additions made since, which I should say cost £500 or £600 more.
1140. Then, the total cost has been about £4,000? Yes.
1141. How many beds are there in that hospital? In the general wards there are twenty-four, and in what we call the strong-room there is room for two. Then there are four private wards. We have also what we call the infectious hospital, where there are four separate rooms for infectious cases. That is about a mile away from the general hospital.
1142. How many beds are set apart for male and how many for female cases? There are eight beds for females and sixteen for males, with two set apart in the strong-room.
1143. Is the accommodation in the hospital sufficient to meet the calls made upon it for the district? We sometimes have the hospital overflowing, but not continuously.
1144. Is that in times of epidemic? No; we do not take in epidemic cases. It is simply that occasionally there are more calls than usual.
1145. What district does your hospital serve? It serves the district from Guy Fawkes to Bundarra and from Carlisle's Gully to Guyra.
1146. Do you take in cases from Hillgrove? No; we do not, except in this way: If a patient is not satisfied with the treatment that he is getting in the Hillgrove Hospital, and he comes to us, that hospital has to pay £1 a week for the patient.
1147. Can you tell us about the number of in-patients that you treat annually? I should say somewhere about 200.
1148. And do you treat out-patients? Yes, we treat out-patients besides.
1149. Patients who come with orders? No; that is not the arrangement that we have there. They come to our private residence; then we give them an order on the hospital for medicine.
1150. The out-patients come to the private residence of the medical officer? Yes; and they get orders for medicine. They have to have an order before they can get the medicine. They have another order, to be countersigned by two members of the general committee, saying that they are paupers, and are fit subjects to be supplied.
1151. You do not take any payment from out-patients, either for the hospital or for the medical practitioners? No.
1152. You have four private wards;—what are your charges in those wards? The charge has just been altered. It was 2 guineas a week, and the out-patients pay their medical attendant. Now it is 3 guineas a week; but I think that since I was there a resolution has been passed altering it to £2 10s.
1153. That is the fee for maintenance, what are the fees for medical attendance? Just the ordinary fees.
1154. The fees go to the medical attendants? Yes.
1155. What is the annual cost per bed in your hospital? Somewhere about 23s., I think. Last year it was a little more. I think it was about 25s. last year.
1156. That is the cost of a patient in the ordinary wards? Yes.
1157. What are your sources of income? Our sources of income are subscriptions and proceeds of entertainments, and there is, I think, £1,200 on deposit in the hands of trustees—an endowment fund. I am one of the trustees.
1158. Do you get interest on that? Yes.
1159. Then you get a Government subsidy? Yes.
1160. *Mr. Walker.*] That is on your subscriptions? I suppose so.
1161. They get about £300 a year, do they not? I think it is sometimes a little more than that.
1162. *Dr. Manning.*] How has this £1,200 been accumulated? There was one donation of £1,000, and a bequest after death of £200.
1163. Was there a special condition attached to these donations that they should be used as an endowment fund? There was.



1164. Then you do not put by any savings or sums given you to the endowment fund? No; we have never been in that happy position. G. Wigan,  
M.R.C.S.
1165. How many nurses have you? We have a matron, and three nurses, a wardsman, and a secretary, and dispenser. 11 May, 1899.
1166. One officer is both secretary and dispenser? Yes; we have also a cook and a laundress.
1167. How many honorary medical men have you? We have at present four; formerly we had three.
1168. Are their services entirely honorary? Yes; except for the fees that they get from patients in the private wards.
1169. You have never had to close any part of your hospital for want of funds? No.
1170. When you have been short of funds what steps have been taken to make up the amount? I do not think we have ever been in that unhappy position, we have always been able to pay our way.
1171. Do you find that the people in the neighbourhood are fairly liberal in supporting the hospital? Certainly.
1172. And they take considerable interest in the hospital? Yes.
1173. That applies, I suppose, to the people in the town—to the pastoralists and the settlers? Yes.
1174. I suppose there is very little abuse of the hospital by people who ought not to participate in its benefits? Well, we had a very energetic treasurer, and, to my mind, he ran the place rather too much on commercial lines. Patients, if they had a penny at all, had to pay.
1175. He made them pay? He did.
1176. Up to what amount did they pay for their maintenance? From 5s. up to the full amount of the average cost per head per annum.
1177. I suppose there were very few cases that were able to pay the full amount for maintenance? That is a question I cannot answer.
1178. You have no difficulty, I suppose, in getting nurses? We have trained nurses ourselves for many years, women from our own district. I do not think that during the last eight or nine years we have imported a nurse into the district.
1179. And you get good services from the nurses? Very good indeed.
1180. Do they remain with you long? Our head nurse has been eight years with us, the matron has been eight or nine years, and the probationers come and go, staying perhaps on an average two or three years with us.
1181. And you think it is possible to get a good training in a hospital of that kind? I think they get a better training there than the nurses get at Sydney. What I mean to say is that their training is more general, and they have more responsibility placed upon them. There are three nurses now in Sydney who were trained at that hospital. They have all passed examinations in Sydney and Melbourne, and are nursing for themselves at homes in Sydney.
1182. About what hours are your nurses on duty? There is only one night nurse, and she comes on duty about tea-time, and remains till about 8 o'clock in the morning, when the wards are cleaned up. The other nurses get up about 6 o'clock and assist her. They remain on duty until tea-time. They are on duty about twelve hours a day.
1183. You do not think it would be possible to work the hospital on the eight hours system? I do not.
1184. It would increase the cost very much? It would.
1185. Have your nurses complained of the hours that they have to work? Not at all.
1186. *Mr. Barling.*] You are aware that our inquiry takes in matters connected with hospitals generally throughout the Colony;—I imagine that you must have given some considerable study to the question of hospital accommodation in the Colony? I do not know that I have.
1187. Have you any idea whether the hospital accommodation of the Colony is equal to present requirements? As far as the north is concerned, I should say that it is. I do not think that anything more is required from Tamworth northwards.
1188. Supposing that an accident were to take place at the most extreme distance from your hospital, how far away would it be from the hospital? At Guy Fawkes I should say it would be 65 or 70 miles away.
1189. Would a patient have to be brought over rough country roads or by railway? It would be simply buggy work. But now I think of it, the patient would go to Hillgrove.
1190. Then a case from the most extreme limit of the district would have to be sent (say) 50 miles to reach the hospital? Yes.
1191. But still, for all that, you think that the requirements of the district are fairly met? Yes; the population is so scattered.
1192. Have you seen a statement in the paper to the effect that people who can well afford to pay for medical treatment are taken into the hospitals;—have any cases of that sort come under your notice? Never.
1193. I suppose it is a fact, however, that in the country districts the hospitals are the only places that can afford proper medical assistance, even to persons who are well off? Yes. That is the reason why we built our private wards.
1194. Is the charge made for private wards such as to recoup all the expenses to the hospital? Yes.
1195. So the hospital loses nothing? At the present day they lose nothing; they are gaining. I can answer that, because I have had to go into the subject very fully myself.
1196. Has it ever come under your notice that patients are sent on to Sydney who ought to be treated in the local hospital? I can say no to that. Of course country practitioners are not so well able to perform operations of a severe character, not having continuous practice, as a man like Dr. McCormack, and we do not feel that it is right to the patients to operate in those cases; so we send them to Sydney, but only cases of that kind.
1197. I gather from what you have said that the hospital at Arncliffe is fairly effective for the purposes required in regard to appliances and everything? Yes; but there is something else they want, and that is some money from the Government.
1198. *Mr. Walker.*] How are your patients admitted into the hospital? First of all they come to one of the medical staff, and he signs a document saying that they are fit subjects for treatment in the hospital. From him they go to two members of the general committee, who inquire into his means, and get him to sign a document to the effect that he will pay so much. When that has been signed by two members of the general committee he is admitted to the hospital. 1199.

- G. Wigan,  
M.R.C.S.  
11 May, 1899.
1199. Do subscribers send patients? No; we have no subscribers' orders.  
1200. You admit patients on the order of the police magistrate? Yes; without any inquiry at all. If it is a case of emergency we take the patient, and do the best we can to get payment afterwards.  
1201. Do you get many on Government orders there? I should say that there may be twenty or twenty-five in a year.  
1202. Can you give us the rate that they are charged for, and the amount they have to pay per diem? The Government patients have nothing at all to pay. We do not charge them.  
1203. That is the agreement? I take it that it is the subsidy that pays for them.  
1204. *Dr. Manning.*] I have seen the hospital, and I think you will say that it is well up to date? I should say so.  
1205. And on modern lines? Yes.  
1206. It is furnished with a heating apparatus and all necessaries of that kind? Yes.  
1207. And with an operating room? No; we have one, but it is only a substitute. We are going to ask the Government to give us the money to provide one.  
1208. But apart from that it is a well-found, well-fitted hospital? Yes.  
1209. I see that it cost about £166 per bed? That I could not say.  
1210. I suppose there is much more need for private wards in the country than there is in Sydney? I should say so, because you have nursing establishments and private hospitals in Sydney. There are no such things in the country.  
1211. So that the class of cases that would go into a nursing establishment of necessity have to go into the private wards at the hospital? Yes; either there or to hotels.

FRIDAY, 12 MAY, 1899.

[*The Commission met at St. Vincent's Hospital at 2:30 o'clock, p.m.*]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT.)

F. N. MANNING, Esq., M.D.

J. BARLING, Esq., J.P.

J. POWELL, Esq., J.P.

CRITCHETT WALKER, Esq., C.M.G.

Mary Xavier Cunningham, Mother Rectress of St. Vincent's Hospital, examined:—

- M. X.  
Cunningham.  
12 May, 1899.
1212. *Dr. Manning.*] What number of beds have you in the hospital? One hundred and seventy-five.  
1213. How many for males and how many for females? There are seventy-one for male patients and seventy for female patients, independently of private rooms. We now accommodate six male and seven female patients in the private rooms. The number of beds in the male and female wards is constant, and there is an equal division. The private rooms vary according to the applicants.  
1214. How are your wards divided? Into medical wards for males and medical wards for females; surgical wards for males and surgical wards for females. It is the same in the private wards. We have also the same arrangements with regard to the ophthalmic cases. We have one naval ward. There are twenty small rooms. We have four emergency wards, three with two beds each. We have three for contagious cases in an isolated cottage in the paddock, and there are fourteen in the Hospice.  
1215. The total accommodation would be for about 200? Yes; the hospital was built to accommodate 200. We have 200 in the house all told. I do not count the beds of those who are employed in the house.  
1216. Does the hospital supply all the calls that are made upon it? No.  
1217. You think that more hospital accommodation is necessary? We require more accommodation. We get more applicants than we can find room for. In the Hospice we cannot take in more than half of the number that apply, nor can we in the general wards admit all applicants.  
1218. You have furnished a return showing the number of in- and out-patients, and the number of beds available, and the average cost per bed for last year? Yes, the average cost per bed was £26 4s. 1d. The return is as follows:—
- |   |             |
|---|-------------|
| 1898—   |             |
| Number of in-door patients treated during the year.....                                 | 1,665       |
| „ casually cases treated „ „ .....  | 2,243       |
| „ patients treated at out-door department during the year.....                          | 7,644       |
| „ attendances at out-door department, including casualties .....                        | 22,757      |
| „ beds available for patients .....   | 175         |
| Average cost per bed during the year .....  | £26 4s. 1d. |
| „ „ patient during the year .....   | 2 17s. 4d.  |
| Nursing staff:—Sisters, 21; Nurses, 18; Male nurses, 2; Mortuary attendant 1; Total, 42 |             |
1219. That £26 4s. 1d. includes the cost for out-patients as well as for in-patients? Yes. We find that one-half of our income in patients' fees comes from the private rooms.  
1220. Your charge for the private rooms is 3 guineas and 4 guineas, according to the size of the room and the convenience afforded? Yes. It is understood that they make arrangements with their own doctors.  
1221. The general arrangement with the doctor is that he gets a guinea a week, and special fees for operations? Yes. If a large room is taken, and the doctor makes no arrangement for his fees, we charge 5 guineas, 4 guineas for the room and 1 guinea for the doctor.  
1222. What sums do you take from the patients in the ordinary wards? A guinea a week from some. They average 14s. a week. They pay 2 guineas when they enter; that pays for three weeks. If they are poor and do not stay the full three weeks, a portion of the entrance fee is returned.  
1223. Do you take many patients without payment? We take a great number without payment.  
1224. Do you take less than 14s. a week? Yes; we take 10s. a week very frequently; and for little children, 5s. a week. I think it is better that they should pay something than that they should be pauperised.  
1225. Do you take any payment from out-patients? A registration fee; that is all, unless they choose to make an offering; and that is thrown into a fund to buy bottles and little things that they require to carry their medicines home in, or to pay their fares in the trams. Very often, indeed, the sister in that department is allowed to use the little income there is for what she thinks necessary.  
1226. What she gets she uses in connection with that department? Yes. She may have something over, which she may be allowed to dispose of in some other way for the poor people. Very often it is food that they want instead of medicine.

1227. The payment made by the Navy is 3s. a day? Yes; a guinea a week. There are three Navies—English, French, and German, and they all pay the same.
1228. Then your staff consists of twenty-one sisters? Yes; and eighteen female nurses and two male nurses.
1229. What other staff have you? We have a third male nurse; but we do not call him a nurse because he has charge of the mortuary, and on occasions he has to help the wardsmen in their manual work. We have two resident medical officers, a dispenser, and an assistant dispenser, hall porter, gardener, and laundry man.
1230. What salary do you pay your resident medical officers? Formerly, £200 a year for one. Now the salary is £100 each.
1231. I understand that you have also special departments for special disease—ophthalmic cases and so on? Yes, we have.
1232. And you have a department for out-patients? Yes, we have two days for medical cases, and two for surgical, one for the ear and throat, and two for eye cases. We have two specialists, and an outdoor physician, and an outdoor surgeon.
1233. You have your own laundry? Yes.
1234. Do you find that cheaper and more convenient than putting the washing out? Much more so. We have three laundresses for the whole house. We have two paid cooks, one pantry-maid, and a housemaid for the nurses' apartments.
1235. What advantages do you think arise from having your own laundry, in addition to its being cheaper? We can separate the clothes in a particular way.
1236. And owing to that they are washed better? Yes, and they are in a much more sanitary state.
1237. You have no danger of the introduction of infectious disease? No. I prefer to have the clothes washed at home, and to have them specially sorted.
1238. How long does the training of the nurses last? Three years.
1239. And during the first year they get no pay? No.
1240. And they give you a premium of 10 guineas? Yes.
1241. In consideration of that 10 guineas they do no cleaning, I believe? The principal part of the cleaning is done by charwomen.
1242. They are not put to scrubbing and other manual work, and that is in consideration of the premium of 10 guineas? Yes.
1243. What do they receive after the second year? The salary is £10 for the second year, and £12 for the third year. I also provide the uniforms.
1244. At the end of the third year they leave you and take nursing positions elsewhere? Yes; unless they stay on to learn medicine, not for dispensing, but to guard them from danger.
1245. They have a thorough training? Yes.
1246. And they are examined by the medical staff at the end of the first, second, and third years? Yes. There is a meeting of the medical staff, and they select two examiners, whose term of office lasts two years. I may state that the sisters take no salary.
1247. It is on that account, I suppose, to some extent, that your very economical management arises? Yes; we have two sisters in almost every Department, and they economise more than paid nurses do. We have two sisters in the kitchen. We have two classes of sisters—domestic and hospital sisters.
1248. The whole of the ground upon which the hospital stands is now freehold, is it not? Yes.
1249. *Mr. Barling.*] Do you find that the private rooms are availed of fully? Yes.
1250. I think you said that the charge was 4 guineas a week per patient? It is 3 guineas a week for small rooms, 4 guineas for the large rooms if the doctor is arranged for. Just lately we have been obliged to raise the charge for the two large rooms to 5 guineas, because they required constant hot baths.
1251. You say they are always occupied? Yes.
1252. Is there any profit to the hospital out of this charge for their maintenance? The revenue from that source is one-half the income derived from patients' fees.
1253. You are charging patients 4 guineas a week—is there any profit on that which goes to the hospital? Half the revenue in patients' fees comes from the private rooms.
1254. There is something coming to the hospital? Yes, a considerable sum, or we should not be able to keep the wards. The private rooms were opened to support the wards, and they do so to a very great extent.
1255. What are the conditions upon which patients are admitted to the private rooms? They must pay 3 guineas a week.
1256. Would you admit anyone who is willing to pay? He must be examined by the doctor.
1257. You would not ask any questions as to his means? We presume that he would not come and ask for a private room unless he could pay for it.
1258. You do not ask whether he has means which would permit him to go to a private hospital outside? If he was willing to pay £1 a week he would go to a ward; if he could pay 3 guineas a week he would go to a room.
1259. *Mr. Walker.*] As regards the admission of these nurses to be trained, the system is purely non-sectarian, is it not? Yes. We have just qualified three fine girls belonging to the Church of England. Candidates who are eligible of whatever denomination are all equally welcome.
1260. What class of people come into the private wards? The people who take private rooms in the hospital come from all parts of the Colony. They are mainly country people.
1261. What are the hours in which the nurses are employed? In winter they rise at half-past 6 o'clock, and go on duty at 7 o'clock. They do not exactly go on duty at 7, but they go to breakfast, and they get into the wards at half-past 7 o'clock.
1262. How many hours a day are they employed? They go finally off duty at 8 o'clock; but they have an hour off every day to rest, not counting the time for meals. They have dinner at twenty-five minutes past 12 o'clock, and supper at 6. They come on at five minutes to 7 in the evening.
1263. *President.*] What leave do they get? One afternoon a week and a fortnight every year, and they have one hour a day for recreation apart from their meals.

M. X.  
Cunningham.

12 May, 1899.

FRIDAY, 19 MAY, 1899.

[The Commission met at the Office of the Public Service Board at 2.30 p.m.]

Present:—

G. A. WILSON, Esq., J.P. (President).

F. N. MANNING, Esq., M.D. | J. BARLING, Esq., J.P.

J. POWELL, Esq., J.P.

T. Evans, M.R.C.S., Eng., sworn and examined:—

- T. Evans, M.R.C.S., E. 1264. *Dr. Manning.*] You are the senior Ophthalmic Surgeon for the Sydney Hospital? Yes.
1265. How many years have you been a surgeon? Nearly seventeen years.
1266. How many colleagues have you now? Three. Dr. Maher, Dr. Rowland Pope, and Dr. McLeod.
- 19 May, 1899. 1267. How long has Moorcliff been used as an Ophthalmic Hospital? I think seventeen or eighteen years.
1268. So you have been connected with it from the beginning? From its inception, practically.
1269. Will you tell us the history of the place, and its growth? Yes. It will be within your knowledge that the Sydney Hospital had temporary buildings which were quite insufficient—which did not afford sufficient room for ophthalmic patients. A house was therefore taken, that of Captain Towns, known as Moorcliff, and all the eye-patients were removed from the Sydney Hospital to that new place,—the men, women, and children being treated in one house. Later on, I cannot tell you how many years, Dr. Maher, who was then my colleague, and myself, found the accommodation altogether insufficient, and we applied to the directors of the Sydney Hospital for more accommodation. It happened that the Victoria Lodge, next to Moorcliff, was untenanted, and that was taken over, and into it we put the women and children, keeping Moorcliff House for the male patients.
1270. Do you consider the site a good one? It is excellent.
1271. Why? On account of the fact that it is very quiet; it is removed entirely from the noise of traffic; and it has an admirable supply of fresh air; and is surrounded on three sides by water. I think it is an excellent site, from the fact that the results which we get there are very good. If we get children there who are broken-down in health, they get on wonderfully well, although the dietary is plain.
1272. Then the results obtained have been very good? Very good. I judge more from what I hear than from what I know, because I am not able to make comparisons much, not having been Home recently; but I know that when our nurses or sisters go Home, and have anything to do with ophthalmic work at Home, they tell us that we are freer from the complications which follow various operations than any hospital that they see at Home.
1273. The success of operative work may depend very largely upon the skill of the operator? Not very largely, but to a certain extent; not so largely as people imagine; but hygienic conditions, care, and nursing are important factors.
1274. And other results with regard to general health would, to some extent, depend upon the site? No doubt.
1275. Do you consider the building a satisfactory one? No, nor the furniture, nor anything connected with the place, except its situation.
1276. The furniture is very sparse, and not satisfactory? Yes; it has been the dumping ground for the refuse of the Sydney Hospital.
1277. Is the nursing satisfactory? Excellent.
1278. And is the staff sufficient? Quite sufficient; because, for instance, as yesterday and to-day, when we are doing six cataracts, we have an extra nurse sent down for night work. We have to arrange matters like that.
1279. Then afterwards her services would be dispensed with? Yes, as soon as the urgent cases have been dealt with. The matron, Miss Marks, is a very excellent woman; she has been there a long time, and she takes a very lively interest in the results.
1280. Have you made any calculation as to the cost of the place per bed? No; my information is only hearsay on that subject.
1281. Can you tell us what is the stated cost? I have been told that our beds cost on an average 13s. a week.
1282. That arises, I suppose, from the comparatively few nurses required, and the plain diet? Yes, and the absence of any residents there. I do not know whether the man who took the figures out took into consideration the cost of the resident staff, and charged it with its proper share; but I have always understood that our patients cost about 13s. a week.
1283. The paid medical staff do not often visit there? Yes; the Medical Superintendent does.
1284. But not the others? No; not unless they come to give chloroform, or there is any case needing anything outside special work.
1285. If Moorcliff is abolished, what would you advise? If it were abolished, then another building must be found to accommodate the eye cases, because the accommodation at the Sydney Hospital is not sufficient to allow them to be taken in. We could do with a great many more beds than we have. We frequently have to keep patients waiting to come in, and sometimes we have even made up a bed on the operating table. Sometimes we have to double-bank the children.
1286. At the time we visited the hospital there were several children sleeping two in a bed, and the number of children there was considerably in excess of that authorised? Yes; and I may mention, though I do not want anything I say to do us out of our accommodation, until something else is provided, the place is so full of bugs that we cannot keep them under, and when an epidemic of rats comes along, we have to employ people to watch at night, because some of the children, within my knowledge, have been bitten by rats.
1287. If some of the patients were removed from one of the blocks of the Sydney Hospital, could not the ophthalmic cases be taken in there? They could be of course; but I do not think with the same satisfactory result.
1288. Why not? Although we keep good order and discipline at Moorcliff, I think it is a more homely sort of place than the hospital. The eye patients are very helpful to one another; they have room to move

- move about at Moorcliff, and there is less feeling of restraint there than there would be in the building in Macquarie-street. The children play about and make a noise.
1289. You think the majority of the patients being out of bed require more space than they would have in an ordinary hospital? Yes.
1290. Or at all events in a hospital like the Sydney Hospital, which has limited ground and limited verandahs? Quite so.
1291. Then what would you advise for the future accommodation of ophthalmic cases? A suitable building.
1292. Where? I do not know of a better place than this; no doubt there are places which would be equally good.
1293. I want to know whether you have thought the matter out? I have not thought of moving away from there. Do you mean with regard to the management of the hospital?
1294. I am merely speaking now of a site for a new hospital? That at Moorcliff is out of the city; it is a little removed from the smoke and the closer air of the city, yet it is sufficiently near the centre for patients to be sent to it and for the surgeons to visit it. I do not know where you could find a better place.
1295. Would there not be economic and other advantages in having the eye cases in the main building of the institution or near it; but not in a separate institution, supposing there was accommodation for them? No; I do not see where the saving would come in.
1296. There would be no gain in having a separate and detached branch? No.
1297. Would there be any objection to making the ophthalmic hospital into a separate hospital altogether? From an economical point of view there certainly would be.
1298. What would that be? You would have a separate administrative body of resident medical men there, certainly a resident surgeon. There would have to be a medical man in charge, and I think you would need a larger staff altogether.
1299. You think it could be worked more economically in connection with the general hospital than in a separate and detached institution? Certainly; I am distinctly of that opinion. There are many advantages in having the place connected with another institution, because if any person gets sick we do not keep him (I am speaking not of eye disease, but other ailments). We send those patients away to the other building for treatment, and they only come back to us when they are fit for us to deal with.
1300. Do you think the majority of these cases could be treated in a hospital entirely under Government management? Yes; I am rather in favour of all hospitals being under Government management, for the simple reason that I cannot shut my eyes to the fact that things are kept going by the Government. I am not quite sure of the absolute accuracy of the figures; but I am sure of their comparative accuracy when I say that about 80 per cent. of the cost of the hospitals is paid by the Government.
1301. But there would still be the disadvantage in connection with a distinctly Government institution that it would have no parent institution to go to and share the expenses with; it would still be a somewhat expensive establishment? Yes; I thought you were speaking of hospitals generally, not of Moorcliff in particular. Of course, the one objection to making it a Government institution entirely is, I suppose, that the whole staff would then be paid. You would do away with the honorary service. I do not think that any of us would like to give up our work.
1302. Would there be any reason why honorary officers should not be attached to a Government institution? No; I do not think so.
1303. But it is not the custom? It is not.
1304. Is the hospital used at present by students for clinical instruction? Very little.
1305. Why not? I presume that they have sufficient material at their own hospital, which is close to their own teaching building.
1306. We gather that the number of beds for eye cases at Prince Alfred Hospital is very small? Very small indeed.
1307. Has not distance something to do with it? Distance, I have no doubt, has everything to do with it.
1308. Then, there is the fact, also, that ophthalmic surgery is sometimes taken after the students' ordinary course? I have not found that they come much.
1309. Where are the out-patients seen? At the Sydney Hospital, in the basement.
1310. Can you give any idea as to the number of patients? No; I can only tell you that there is not enough accommodation for them.
1311. They are seen by the two junior honorary officers? Yes; I very rarely go there now.
1312. Can you tell us where the greater part of the patients come from? From New South Wales. A good number from Queensland, some from Western Australia, and a very few, I think, from Victoria.
1313. We were struck rather with the number that come from Bourke? I think everybody in the Bourke district has bad eyes, more or less. I doubt whether you would find perfectly healthy eyes in that district. I refer to those parts of the eyes which are affected by hot and dry outside surroundings.
1314. What would apply to Bourke would apply also to the whole of the far western districts of the Colony? Yes; but I suppose there are more people in Bourke than in other parts of that district. It may be a larger centre. But all along there, at Nyngan, Cobar, and west of Dubbo, there is a liability to these diseases of the eye.
1315. A great many patients come from there? Yes; and they come back from Bourke. We send them away well, and in that condition they would remain if they did not go back to such a place. It is like a man who has been poisoned, you get rid of the poison, then he goes where he gets the poison again, and you have again the same symptoms.
1316. Do you think many patients come who could afford to pay special practitioners? I have reason to believe that a great many do. It depends upon who you think ought to pay. I think that men earning £3 or £4 a week ought not to make use of a charity such as that, but they do. I am not speaking of accidents and urgent cases, but such things as we call "luxuries," squints, and that sort of thing—cases that have gone on for years, and are not urgent, and for which provision might have been made.
1317. Do you think that the inquiry which is made into the circumstances of patients at the Sydney Hospital is sufficient? The patients do not tell the truth when they come. They put on their old clothes, they

- T. Evans,  
M.R.C.S.E.  
19 May, 1899.
- they leave their jewellery at home, and if they drive up in cabs we do not see them. It is very difficult to institute satisfactory inquiries into such matters.
1318. You would have to follow the people to their homes, and you would require a special inquiry officer to do that? Yes.
1319. *Mr. Barling.*] Is the climate of Sydney particularly favourable to the treatment of ophthalmic cases? I think so.
1320. As compared with Melbourne, Adelaide, and Brisbane? I do not know; I have never practised in those places.
1321. You have told us that many cases come from Queensland? Yes.
1322. Is that due to the fact that we have a better climate? They come to see the staff.
1323. There is a better staff here? They think so.
1324. I think the rent for the Moorcliff Hospital is £350 a year? Yes.
1325. Do you not think that a much better place could be obtained for carrying on ophthalmic operations for that money? Well, you have to find accommodation for between sixty and seventy people.
1326. Do you not think that a place could be got about Sydney very much more suitable for that rent? I do not know any building that would accommodate the cases. I think that £350 a year is a great deal too much for that place, because it is within my knowledge that Victoria Lodge was occupied at a rent of £100 a year before we got it. It was inhabited by a gentleman who was manager of one of the banks.
1327. You think that for that money a much better place should be obtained? Ought to be obtained; but I do not think you could better the site.
1328. Could there be obtained about Sydney a site equally good? I do not think so. I think its proximity to the water, and the view and the surroundings generally could hardly be matched anywhere.
1329. You were saying that a person earning £3 or £4 a week should not go to a public hospital? Yes, except in cases of urgency.
1330. Are there private hospitals here, the charges of which are sufficiently moderate to enable persons of small means to pay for treatment without some help? No; the private hospitals generally charge a minimum of, I think, 3 guineas a week for maintenance.
1331. Plus, I suppose, medical expenses? Yes.
1332. A person with £3 or £4 a week coming in would find it hard to pay that sum? Yes; but I specially mentioned the class of cases which I call "luxuries."
1333. Yes, curing squints and so on, but I mean actually urgent cases? There are not very many except very urgent cases in which the people having comfortable homes cannot be attended to at home.
1334. As far as diseases of the eye are concerned? Yes.
1335. The operator does not require such extensive apparatus as are required for the major operations? I am not sure of that. At any rate our instruments are much more delicate, and require greater attention.
1336. So you think that the requirements of that class could well be met outside the hospital? The general requirements, not the special requirements. We cannot get our instruments set here. I have a case constantly coming and going. I am going to give up London now and try New York.
1337. *President.*] Would that observation of yours apply to patients who come from Queensland and have no home here? Of course they would have to come into the general hospital; they must.
1338. *Mr. Powell.*] The space seems to be very insufficient for exercise at Moorcliff? The space has proved by results to be sufficient.
1339. It is very limited? It is.
1340. Do you approve of that place as a site? Yes.
1341. Would it be possible to get other properties, so that the space could be increased for the exercise of the patients? A larger space would be better with similar surroundings.
1342. Could that be obtained there? That I do not know. You cannot take a hospital of that sort very far out of the city. At least, if you did it would be attended with a great deal of inconvenience in the way of transferring patients and visiting them.
1343. *Dr. Manning.*] It would be inconvenient to take the hospital far from the city, because you would not be able to get the services of medical men? You know we are always on the spot. A great advantage in having that house in connection with the Sydney Hospital is that cases of accident when they come in can be put into beds in the accident ward.
1344. Accidents to the eyes? Yes; we keep beds at the Sydney Hospital. Sometimes there are three or four accident cases; they generally come in batches.
1345. Then, when they have to be removed, you remove them? Yes; then they go to Miller's Point.
1346. Have you any knowledge of the private hospitals of Sydney? When I have a case to treat in private, that of a person without a home in Sydney, I send the case into a private hospital.
1347. You only know one or two of these private hospitals? That is all.
1348. You do not know how many there are? No. The advantage of them is very limited. The class of persons whom I treat, as a rule, have homes in which I can do the work—except the country cases. The number of those who can pay is very small.
1349. There are no private ophthalmic hospitals? None whatever.
1350. Have you formed any opinion as to whether private hospitals should be licensed or not? No, I have not thought of it.
1351. Has the question of paying patients in public hospitals engaged your attention at all? Yes.
1352. What are your views on that subject? I am strongly opposed to allowing paying patients to go into hospitals.
1353. You would keep the hospital entirely for the necessitous poor? Precisely so, as a benevolent institution. You see it is a very difficult question to answer. There are so many considerations to be taken into account. It is not right to expect honorary medical men to give their services to patients who pay. It is not right that the hospital should use their reputation and skill, and make money out of them. I am strongly opposed to it. The idea of paying patients has only come to me since I have been in the Colony, because when I left London such a thing did not obtain. In Guy's Hospital, the hospital in which I was educated, there was not a paying patient. Such a thing was not heard of. I think I can say that that was the case at all the other hospitals.

1354. They neither had paying patients in the general wards nor in the private wards? No.
1355. What do you think should be done in the case of patients who are able to pay small sums, but yet require help? Well, I do not know. That is one of the most difficult questions we have to consider. A patient comes and says I do not want to go into a hospital, your fee for cataract is 50 guineas. I cannot pay 50 guineas, but I have £30. What am I to do. I am obliged to send the case into the hospital. Fifty guineas does not pay for a case of cataract. It is all right if it goes on well, but if it goes wrong I have to pay fifty or sixty visits, and get any amount of abuse. I admit that in that respect I have sinned frequently.
1356. Do you approve of the charge of 1s. for the registration of out patients? Most distinctly not.
1357. Do you think that is open to abuses? I do. I think that every means of getting money from patients is a mistake.

T. Evans,  
M.R.C.S.E.  
19 May, 1899.

Susan Bell McGahey sworn and examined:—

1358. *President.*] You are matron of the Prince Alfred Hospital? Yes.
1359. What are your relations to the Medical Superintendent, or your responsibility to him? In matters of importance I always consult with him before taking any active steps.
1360. Do you report to him? Yes.
1361. Do you report independently to the committee? I write a report about every fortnight, and if I have any recommendation to make I mention it to the Medical Superintendent before sending it to the Committee.
1362. You confer with him? Yes.
1363. I suppose you have full control over the nursing staff? Yes.
1364. Is the staff under the Medical Superintendent? Yes; if a nurse has to be discharged I would confer with him in the matter.
1365. Has that to be confirmed by the committee? Yes; it always has to be confirmed by the committee.
1366. Do you engage nurses? I select the nurses, they are examined by the Medical Superintendent, and the committee appoint them on the recommendation of the Medical Superintendent and myself, after they have completed one month or two months' probation in the hospital.
1367. Is the number of nurses sufficient for the purposes of the hospital? Yes. Sometimes there is extra work, and the nurses have to do longer hours; but if there were three additional nurses I should then be able to keep the nurses on ten hours' duty daily.
1368. Is it a serious matter for them that they have to do these long hours, or is it only an occasional thing? It is not the usual thing; it occurs occasionally.
1369. Do they complain? As a rule they do not like to work longer than ten hours daily; some would prefer even shorter hours.
1370. This overwork you consider is working over ten hours a day? Yes; our time-table is nine hours and twenty minutes; but the nurses cannot always get to their meals at the regular hours; sometimes they are from five to fifteen minutes late.
1371. What arrangements do you make for the hard work—scrubbing and cleaning? The probationers do a certain amount of scrubbing. They keep the day-rooms clean, the woodwork therein, and the floors; they scrub and wash-up the crockery. The ward floors are scrubbed by women whom we employ for the purpose. The probationers and nurses scrub the lockers and ward tables, and polish the brasses, sweep the floors, dust the ward furniture, and carbolize the bedsteads.
1372. Do they obtain leave of absence monthly? The nurses have a day off from 10 in the morning till 9 in the evening, Sunday off from 5.30 on Saturday to 9 or 9.30 on Sunday evening.
1373. That is once a month? Yes. The probationers and the nurses get three weeks annually. They are not able to get the three weeks just at the end of the twelve months. The sisters have thirty days in the year.
1374. Do you, personally, get to know anything of the circumstances of the patients and their ability to pay? No; the Medical Superintendent inquires into that.
1375. *Mr. Barling.*] Do you think that the complaints which have been made of the overwork of the nurses are unfounded? There are some who enter the hospital and expect to find the work easier than it is, although it is pointed out to them before coming in what they are expected to do; such people are disappointed, and occasionally grumble because they have to work. There are others who are domesticated, who do not think work menial. Such women succeed as a rule, and do not consider the work very hard.
1376. Can you tell us what proportion of nurses break down or leave after the first month? I have made a calculation for three years. In 1896 we had sixteen vacancies, and there were sixteen probationers taken on. Six per cent. of the probationers left during the first month, and during the first twelve months 37 per cent. left. In 1897 there were thirty-three vacancies and eighteen probationers left. The percentage of those who left in the first month was 15, and during the first year 54. In 1898 there were thirty-two probationers taken on to fill vacancies, and sixteen of these, or 9 per cent., left within the first month, and 50 per cent. during the first year. I might mention that 1897-98 were exceptional years. As a rule, we do not have so many vacancies, but a number of nurses were appointed in 1897 to superior positions in other hospitals, and this occasioned some exceptional vacancies on the staff; when the nurses were promoted to fill these vacancies we could not take them in their order of seniority, the result was those who were passed over left. In 1898 an old rule was brought into force which did not meet with the approval of some of the nurses, and they left when they had completed their three years' training.
1377. Can you tell us from your observation when the nurses leave whether the majority leave because they are absolutely broken down in health or because they are tired of the work? During the year 1896 two probationers resigned, two were not strong enough for the work, and two were unsuitable. In 1897, two did not care for the work, five were unsuitable, and three said they were required at home; eight considered the work too hard for them. In 1898, ten were unsuitable, three were delicate, and three did not care for the work.
1378. Can you tell us the state of health of the probationers you have now? All those I have at present seem to be in very good health.

S. B.  
McGahey.  
19 May, 1899.

- S. B. McGahey.  
19 May, 1899.
1379. They keep in good health? Yes, as a rule. If they are not strong enough to continue the work I advise them to give it up.
1380. If they are fairly strong the work is not unhealthy? No.
1381. Is there any other information you can give us that might be of interest? I was going to mention that nurses' lectures are given, and classes held in their off-duty time. Nurses have three hours off duty daily; lectures and classes are held about twice weekly for nine months in the year. Then with regard to the different grades of nurses—the probationers remain twelve months in that grade; if eligible for promotion to the junior nurses' grade, and a vacancy occurs, they are moved up. If a probationer is not able to pass her examination, or for some reason she has to wait a couple of months or more over the twelve months before entering for examination, she is still kept in the probationer's grade till she passes. Sometimes it happens she has passed her examination, but there is no vacancy in the junior nurses' grade, and she cannot be promoted. In the other grades the same sometimes occurs.
1382. Then taking it altogether, you are of opinion that there are a sufficient number of nurses to meet the wants of the hospital, and that they are not overworked? I do not consider they are overworked. They know when they come into the hospital what is required of them, and if they consider the work too heavy, they are at liberty to leave.
1383. I understand that the applications for employment are largely in excess of your requirements? Yes. I shall give you the figures for three years. In 1896 there were 270 applicants; in 1897, 225; in 1898, 280. For the first three months of 1898 there were fifty-eight, and for the first three months of 1899 there were ninety-seven.
1384. How many were taken on during those periods? During 1897 and 1898 there were sixty-five.
1385. Is there anything else that you have to say that would be of interest to us? I might mention that some time ago the nurses were very much in favour of having the eight-hour system, but during the past eighteen months little has been said on the subject.
1386. *Dr. Manning.*] It would be very difficult to work the hospital with an eight-hour day, would it not? Yes; much more so than at present.
1387. A great number of the applicants are quite unsuited for the work? Yes. Many are uneducated, others may have education but do not possess the necessary qualifications.
1388. A nurse requires a peculiar combination of qualities? Yes. I consider that it takes an all round good woman to make an efficient nurse.
1389. A nurse entering into training has to take into consideration that she has to earn a living by her profession, and it is no use her continuing unless her health is good? No, not in hospitals; she is incapable of doing her work satisfactorily.
1390. Then, she would be quite incapable of nursing at a private house if she were incapable of nursing in a hospital? Not always. In a private house a nurse has only one patient, and she is not obliged to stand so much as in a hospital; she can also take more time over her work, but as a rule she has longer hours, as she may be called up at night.
1391. *Mr. Barling.*] Can you tell us the average number of patients per nurse? About three and a half patients per nurse.

Walter Cecil McClelland, B.Sc., M.B., Ch.M., Syd., sworn and examined:—

- W. C. McClelland,  
B.Sc., M.B.,  
Ch.M.  
19 May, 1899.
1392. You are medical superintendent at the Sydney Hospital? Yes.
1393. *Mr. Barling.*] Will you state the number of wards, the number of beds, and the particular use to which each of the wards is put? We have fourteen wards. There are two female surgical wards and one female medical ward. I will give the lettering of the wards. They run A, B, C, D, E, F, G, H, J, K, M, S, T, W, [SMC], [INF], [OM], and OW. The A, B, C, are the female surgical wards. The lock ward comprises twelve of those beds, and the remaining twenty-two are the female surgical beds. D, E, F, make up the female medical wards. Then G ward is an accident male ward. H and M are male surgical wards. J, K, and T, are male medical wards. S, is a special male ward for stricture and urinary troubles. W is a female ward specially for diseases of women—the gynecological ward. We have eight children's cots; then we have six beds in what we know as our isolation cottages—two in a special room for men, and four in special rooms for women. That makes altogether 249 beds that we have in Macquarie-street, and there are sixty-six at Moorcliff.
1394. What more accommodation is required to meet the demands made upon the hospital? We need more female surgical accommodation. We have only twenty-two beds to accommodate all the females that come in for ordinary and accidental surgical cases.
1395. Is there any class of patients of whom you might be relieved, and that might be as well treated elsewhere? The lock patients occupy twelve beds, and I think they might be treated elsewhere. We have no male lock patients at all.
1396. How much increased accommodation would that give you? Twelve beds.
1397. Would that be sufficient to meet your requirements, as regards female surgical cases? I think it would, pretty well.
1398. If the female lock cases could be removed it would give you the additional accommodation that you require for female surgical cases? Yes.
1399. Do you think that the lock cases could be dealt with at the Coast Hospital? I do not know how they would manage. They take male lock patients there.
1400. If they could take the female lock patients there it would be the means of giving very much needed relief to the Sydney Hospital? Yes.
1401. It would be worth while to direct attention to the question as to the relieving of your hospital of the female lock cases? Yes.
1402. Would it remove any sources of infection if they were to be taken away? No; they are strictly isolated.
1403. You would recommend their removal simply to give you much-needed additional room? Yes.
1404. Do you admit cases of consumption? Yes, a certain number.
1405. In what stage are they admitted;—is it in the last stage? They vary. I cannot say that there is any particular stage; they are in all stages. We only admit them when the symptoms are very severe—loss of blood, excessive coughing, and vomiting.
1406. What is the average number that you have at any time? We have, on the average, at least two in each medical ward.
- 1407.



W. C.  
McClelland,  
B.Sc., M.B.,  
Ch.M.

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1407. Do you think that is a source of danger to the patients in the ward? I do.
1408. I suppose that consumption is looked upon as a highly-contagious disease? Yes.
1409. And that medical science daily proves that more and more conclusively? Yes.
1410. Therefore, it is dangerous to have consumptive patients mixed up with others? Yes.
1411. What would you recommend as regards the requirements of Sydney in that respect? I think there ought to be some small receiving depôt to take in such bad cases as I have mentioned, with a view of transferring them to a sanatorium, or something of the kind in the country, when they are relieved of their more immediate symptoms.
1412. That should be an isolated hospital, to prevent the danger of infection? Yes, unless you could have a block of one hospital devoted to that entirely.
1413. Could that requirement be met at the Sydney Hospital by erecting another building? No; there is no room in the hospital grounds for such a building.
1414. You would recommend that there should be a small receiving hospital for taking in urgent cases until the patient dies, or could be removed to a country sanatorium? Yes.
1415. At Thirlmere we have such a sanatorium? Yes.
1416. Is that suitable to meet the existing requirements? Not at all.
1417. You have thought the matter over; what do you think is required to meet cases of that kind? I do not know how many beds they have at Thirlmere; but I know that we have amongst our out-patients quite thirty cases that ought to go to go up the country somewhere.
1418. Those thirty cases, I suppose, are in poor homes where they cannot be isolated, and perhaps the disinfection process cannot be adopted; so they become a danger to the whole community? Yes.
1419. Your experience would show that at least thirty cases require to be provided for, and the same experience would be met with with regard to other hospitals,—so we may reckon that a hospital to accommodate at least 100, or a country sanatorium for 100, would be required, in addition to the provision that we have? Yes.
1420. I think you require increased accommodation for ophthalmic cases? Yes. The number of beds that we have at Moorcliff is not sufficient for the number of patients who apply for admission.
1421. What is the deficiency in accommodation? I think we should want at least half as much again, that would bring us up to about 100. We could easily fill 100 beds.
1422. Cases are now sent away that urgently require to be attended to? Perhaps not urgently; but certainly they require indoor treatment. The very urgent cases we do take in at all costs, even though we have to make up a bed for them. Sometimes we have to accommodate them in the Sydney Hospital.
1423. Have you given your attention to the question, as to whether it is practicable to get a better building than you have at Moorcliff? I think it would be easy to get a better building.
1424. Do you think you could get it at a reasonable rate? Yes, I think so.
1425. Supposing you were asked to report on the matter, you think you would not have very much trouble in suggesting a site and building which would be as cheap as the present one, and would give better accommodation? I do not know about being as cheap, but one which would give better results.
1426. What are the principal class of cases dealt with at the Moorcliff Hospital? Mostly granular ophthalmic cases and cataract and accident cases.
1427. Have you found any increase in the number of patients suffering from venereal diseases? Yes; they are on the increase.
1428. Are they largely on the increase? I would hardly say largely; but certainly they are increasing.
1429. Does it often happen that female patients suffering from venereal disease leave the hospital before they are cured; and are therefore likely to spread the disease? Yes, often.
1430. That has come under your observation? Yes.
1431. Can you suggest any remedy for this? The only thing would be to keep them in the hospital until they are cured; to have some kind of compulsory confinement.
1432. How long do they stop in the hospital? The average period is about six weeks.
1433. Is that sufficient to complete the cure, so that when they leave they will not be sources of trouble again? No; not in many of the cases.
1434. It is not a sufficient time? No.
1435. So they go out and come back again soon, worse than before, and after having done any amount of mischief? Yes.
1436. What proportion of out-patients at the main hospital and in Regent-street do you think suffer from venereal diseases? I think quite half of the surgical out-patients.
1437. Can you tell us what proportion the surgical out-cases bear to the medical out-cases? Not exactly; but I should think about one-third of the total number of out-patients would be surgical cases, excluding the special out-patients.
1438. Then half of those are persons suffering from venereal diseases? Yes; one-sixth of the whole.
1439. Do you always keep the beds for lock cases full? Yes; pretty well.
1439. So that this class of disease is entailing a large expense on the community? Yes.
1440. In other words, the charitable public are taxed for the purpose of treating these cases? Yes.
1441. Have you anything further to suggest in connection with the matter? I do not think so.
1442. You have given attention to the hospital requirements of the city and suburbs, will you give us your idea as to whether the requirements generally in this particular are met, or in what way they are deficient? Judging from the number of cases which come to me for admission, which I have to defer for some time, and some to refuse altogether, I think, as far as we are concerned, we could do with almost 100 more beds.
1443. Well, now, generally speaking? I think that altogether you want 200 or 300 more beds for the city and suburbs.
1444. You think that 200 or 300 more beds would meet the case? Yes.
1445. At present we have about three beds per 1,000 of the population, what you suggest would bring it up to nearly four beds per thousand, the average given in some of the best works on hospital requirements in Europe—you think that four beds per thousand is really needed? Yes.
1446. I understand that you do not find the practice of sending out your washing satisfactory? No.
1447. In what respect is it not satisfactory? Well, the clothes very often are damaged, and they have not been within my knowledge of a decent colour; they are not white. Some members of the Board when passing through the wards the other day remarked the brown appearance of the quilts, which should have been white.

W. C.  
McClelland,  
B.Sc., M.B.,  
Ch.M.

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1449. What is the cost of the washing? About £1,000 a year.
1450. Could you erect a laundry in the hospital grounds? There is a little plot at the back of the hospital, but I do not know whether that would be large enough to erect a laundry on. We have the matter under consideration.
1451. You think the interest on such an outlay, if it could be undertaken there, together with working expenses, would result in a saving as compared with the present outlay? Yes; it would certainly result in a saving in the end.
1452. Do you consider the operating theatre up to date? Not by any means.
1453. In what respect is it defective? Well, in every respect. An operating theatre should be of the simplest kind; but ours seems to have been built with a view to beauty rather than to usefulness. It contains stained windows with large recesses and various cornices. Everything being made to catch the dust rather than do away with it.
1454. What sort of floor has it? It is a wooden floor with oilcloth on it.
1455. Could those defects be remedied? Yes.
1456. Could you put down a cement floor? No; we have tiles outside the operating theatre and they are loosening. We often have to get them repaired.
1457. Do you require an additional operating theatre? Yes; the latest idea is that there should be two operating theatres, and we are making shift with another room to act as a second operating theatre.
1458. Why is a second operating theatre required? Because it is not considered fair to certain patients who have to be operated upon to take them into the theatre where there have been cases, not aseptic—accidents brought in from the streets.
1459. You have a theatre for the treatment of these cases? Yes.
1460. Is there any place where such a theatre could be put? I think we could erect a small theatre either on the ground-floor or supported on piles a short distance away from the other.
1461. I suppose you would want a very much smaller one? Yes; if we had another one we would use the newly built theatre for the aseptic cases, and the present one for the septic cases.
1462. I suppose that would be without incurring any great cost or unduly curtailing the ground space? I do not know about the cost, but I do not think it would curtail the ground space much.
1463. It would not interfere with your general arrangements? No.
1464. You would recommend that it be done? Yes.
1465. I believe that the accommodation for the present number of nurses is insufficient? Yes.
1466. Could it be increased by additions to the present building? I think it could.
1467. In what way would you do that? Build it to the present front at the east end.
1468. How many more nurses are required to properly carry on the work of the hospital? We should need at least two or three under existing conditions.
1469. And you cannot accommodate them with the room you have at present? No.
1470. But still two or three are required? Yes.
1471. To that extent I suppose the present nurses are overworked? Well, you cannot say they are overworked, but every now and then some of them are called upon to do a few hours extra duty.
1472. After they have worked ten and a half hours? Yes.
1473. To that extent it would be overwork? Yes, but the time is subsequently repaid.
1474. Do any medical students from the University attend the hospital? Very few; but they are beginning to come.
1475. Have you proper facilities for teaching medical students? Yes; but we have not been called upon to use them.
1476. If Prince Alfred Hospital becomes overcrowded, it will be easy to supply these wants in the Sydney Hospital? Yes.
1477. You have no private wards? No.
1478. Have you thought whether there is a necessity for private wards to meet the requirements of persons who have small salaries? I think that private wards in connection with public hospitals are a mistake.
1479. Do you think there is an opening for an intermediate hospital to meet the cases of those who can pay something towards the expenses of treatment, but who cannot afford to go to a private hospital? Yes; either that, or to have private hospitals at lower rates.
1480. Do you think that private hospitals ought to be under proper regulations—that they should be licensed? I do.
1481. There is great liability to abuse in having private hospitals, is there not, unless they are properly supervised? Yes.
1482. You would strongly suggest that they should be licensed or in some way supervised? Yes.
1483. Is there anything else on which you could give us any information which would be of use to us? There is the matter about the Eye Hospital being apart from the main building. I think it would be cheaper for the hospital, and in every way more satisfactory if the eye patients were in the same grounds or under the same roof as the rest of the patients.
1484. Would that lead to more economical results? I think it would on the whole.
1485. Could they be provided for in the present building? Yes; by additions to the present building they might be.
1486. Would you suggest that that should be done? I would.
1487. Where would you put the new building? There is no floor space. They would have to build a ward on the top of each of the other wards.
1488. Is that what you would advise should be done, rather than have a new building altogether? I would.
1489. Is there anything else you wish to mention? There is one thing that we have been in need of, and that is a proper fumigating apparatus, for disinfecting clothing, bedding, &c. We have asked for that.
1490. Would it be an expensive matter? I do not think it would be. It could be put near the engine-house, and the same means that supplies the boilers could supply the heat necessary for the apparatus.
1491. *Dr. Manning.*] How often do you go to Moorcliff? On an average, once a week.
1492. Can you give me a register of the cases showing the number of cases of each disease of the eye treated there during the year 1898? It is in the report.

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1493. I see that a very large proportion of them are cases of granular conjunctivitis? Yes.
1494. And these cases could be treated anywhere? A great number of them, but those that come from the country seem to do well without any treatment. The mere change of climate from the country to the town seems to go a long way towards their cure.
1495. A very large proportion could be treated in one of the asylums for the infirm and destitute? Yes.
1496. In fact, nearly half of the cases treated at Moorcliff could be treated in one of those asylums? Yes; with proper surgical skill and nursing.
1497. It would be necessary, of course, to have skilled ophthalmic surgeons for operations? Yes.
1498. But it would not be difficult for an ordinary practitioner, with a fair knowledge of ophthalmic science, to treat a very large proportion of the cases now at Moorcliff? Yes; he would be able to treat them.
1499. What are the disadvantages of Moorcliff as regards administration as it now stands? Just the fact that it is so far away. A resident surgeon has to go down there every day, and, of course, it takes up his time going backward and forward. Sometimes he has to go twice a day. Sometimes he has to go in the morning, then again in the afternoon to give anaesthetics for operations. The matron goes there frequently. I have to go, and nurses have to go. It is beneficial to the nurses, because they get out there more than they do at the Sydney Hospital.
1500. But if you had the whole of these seventy cases in connection with the main hospital they would take up a good deal of the time of the medical officers? Yes; but their time would not be spent in travelling.
1501. You have spoken of providing for these cases at the Sydney Hospital, but considering that a very large proportion of them are out of bed, many of them being children, would it be at all advisable to have them near the other wards? Of course, we should have to consider where we could put them so that they would not be too near the medical wards where the cases are bad. I think they could be trained not to make much noise.
1502. Do you not think it possible that the more acute cases—those requiring operations—could be provided for in the Sydney Hospital in one of the present wards, and that the mass of the more chronic cases, especially those with granular lids, could be provided for in the asylums for the infirm and destitute? We have not room now.
1503. Suppose you cleared out one of your wards, took away some of your medical and surgical cases, and sent them elsewhere;—suppose the Government did not send you so many cases, could not a ward in Sydney Hospital be devoted to acute ophthalmic cases? Yes; but we have so many cases. If cases were not sent to us by the Government we should have more room.
1504. Suppose that the Government did not send you near the proportion of cases that they do at present, but sent them elsewhere, could you provide room for ophthalmic cases? Yes.
1505. You have spoken of phthisis cases? Yes.
1506. I suppose that many of them are quite hopeless? Yes.
1507. And they could be provided for in the asylums for the infirm and destitute, or some institution in a country place? Yes.
1508. That would, in fact, be their fit home? Yes.
1509. Suppose the Government provided an isolated pavilion? In many cases the patients that come to us are so bad that they cannot travel.
1510. Do you have many cases of ophthalmic disease from other colonies? Yes, a fair number, mainly from Queensland. The majority from outside the Colony come from Queensland.
1511. The cases from Queensland seem to be a very great burden on this Colony? Yes.
1512. Are the majority of them necessitous cases? Many of them are shearers and people of that kind, who have a few pounds with which they are able to come to Sydney, but who have very little to give towards their support in the hospital.
1513. Therefore, a considerable portion of them are maintained at the Government expense? Yes.
1514. Do you think the suburban hospitals do all that they might to relieve the city hospitals? No.
1515. Which are the defaulters in that respect? Up to lately the main one is the Balmain Hospital. Until very lately they would not take in ordinary cases at that hospital. By their by-laws, I believe, they are not allowed to take in typhoid cases; but they have sent over to me cases of rheumatism and heart disease—cases that were distinctly prejudiced by the journey to the hospital.
1516. And which might as well have been treated at their hospital? Yes.
1517. And you knew that they had beds? Yes; it has been given out at Balmain that the beds in the Balmain Hospital are simply for accident cases.
1518. Are there any other hospital defaulters in this respect? Balmain is the only one that I know of.
1519. Have there been any complaints about the North Shore Hospital? No.
1520. Or any of the other suburban hospitals? I have not had occasion to complain of them at all.

Rose Creal sworn and examined:—

Rose Creal.

19 May, 1899.

1521. *President.*] You are Matron of the Sydney Hospital? Yes.
1522. Will you tell us what are your responsibilities to the committee and to the Medical Superintendent? I am responsible to the Medical Superintendent, and, through him, to the House Committee, for the efficiency of the nursing staff, and management of the wards.
1523. Do you report direct to the Medical Superintendent? Yes. I hand in my journal weekly to be read by him to the House Committee.
1524. And you are responsible for the nursing staff? Yes.
1525. And for the household management as well? Yes.
1526. Is the number of nurses sufficient for the hospital in your opinion? No; I think we could do with a few more.
1527. Do they complain of overwork? No.
1528. What do you want more for? Sometimes we have to keep them on a little overtime. If the infectious wards are in use I think we really want about three more.
1529. What are the hours of duty? About ten and a half, sometimes eleven hours.
1530. What leave of absence do they get? The sisters get thirty days every year; the head nurses twenty-one days; the junior nurses and probationers fourteen days.

1531.

- Rose Creal.  
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1531. Is that besides any weekly or monthly leave? Yes. The sisters and head nurses have twenty-four hours off once a month; nurses twelve hours, and the probationers nine hours.
1532. Are you also in charge of Moorcliff? Yes.
1533. Do you frequently visit that place? Yes, at least once a week, sometimes twice, sometimes every day.
1534. The matron there is responsible to you? Yes.
1535. How long do the nurses remain at Moorcliff? Three months, whilst they are junior nurses; then if they stay on after their third or fourth year they are sent down there sometimes for six months.
1536. For special training? Yes: if they wish to stay on to gain more experience.
1537. *Mr. Barling.*] You were telling me yesterday that some of the nurses after being there two or three years complain of the character of the work they have to perform? Yes, after completing their training.
1538. What are their complaints? They have never complained officially, but they have grumbled a little amongst themselves. Nurses who have been in the hospital three or four years complain that they have almost as much scrubbing to do as probationers or junior nurses. I have not heard the probationers or junior nurses complain.
1539. Is there any occasion for their grumbling? They have a certain amount of scrubbing to do. We have some wards with thirty-three beds, and in those we have four nurses, a head nurse in charge, a second nurse, and two probationers. The two probationers do the scrubbing in that case, and the second nurse has nothing of that kind to do. Where there are twenty-two beds in a ward we have only a head nurse, an assistant nurse, and a probationer.
1540. I think the sleeping accommodation for the nurses is not very good, there being three, four, five, and six in a room? There are five in two rooms—the sisters have a room to themselves. There are two head nurses in each room, and there are three, four, and five nurses in other rooms. Of course, the rooms are very large and well ventilated. They were not built for bed-rooms. One was a board-room and another was a very large sitting-room.
1541. Have you anything else to tell us that you think might be useful in connection with this inquiry? I think we want more accommodation, and if we had it we could get more nurses.
1542. Until you get it you cannot have more nurses? I feel that I cannot ask for them because I have nowhere to put them.
1543. *Dr. Manning.*] The Medical Superintendent is head of the hospital? Yes.
1544. And you feel that you are responsible to him? Yes; and through him to the House Committee.
1545. Are you aware of the arrangements with regard to probationers of St. Vincent's Hospital? No.
1546. Well, the probationers on application for admission pay a fee of 10 guineas to the hospital for the first year, and receive a salary of £5 for the second year, £12 for the third year and all their clothing—the condition of things with you is very different from that? Yes.
1547. Do you think that a sufficient number of applicants could be got under the conditions imposed at St. Vincent's Hospital? I do not know.
1548. Do you think the probationers at present are overpaid considering that they are learning a profession? I do not.
1549. But if they can be got at St. Vincent's Hospital for very much less, and actually pay to be taken in, do you think it would be difficult to get them at your hospital? I do not know.
1550. The number of your applicants for admission under present conditions is very large, I believe? Yes. I have over 100 applicants on the list now.
1551. It never occurred to you that they might be got at a lower rate? No.
1552. On the payment of 10 guineas for admission to the St. Vincent's Hospital they are relieved of a certain amount of scrubbing? Yes; I do not think that is a good plan.
1553. You think they should do the scrubbing? Yes, a certain amount of domestic work.
1554. Will you tell us why? I think it helps to weed out undesirable persons.
1555. You think that having to do a certain amount of hard work weeds out persons who would not make good nurses? Yes. During the last year we had fifteen vacancies; we took on thirty applicants, one-half of whom proved unfit for the work. Some were not strong enough, others did not like it, and others were unsuitable.

FRIDAY, 26 MAY, 1899.

[The Commission met at the Offices of the Public Service Board at 2:30 o'clock p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).

F. NORTON MANNING, Esq., M.D.

J. BARLING, Esq., J.P.

J. POWELL, Esq., J.P.

CRITCHETT WALKER, Esq., C.M.G.

Charles P. B. Clubbe, M.R.C.S.E., L.R.C.P., London, sworn and examined:—

- G. P. B.  
Clubbe,  
M.R.C.S.E.,  
L.R.C.P.  
26 May, 1899.
1556. *Dr. Manning.*] You are senior surgeon at the Children's Hospital? Yes.
1557. How long have you been connected with the hospital? Fifteen years.
1558. Is that ever since its inception? No; it had been founded four years when I went there.
1559. You have taken a very active part in its administration? Yes.
1560. Are you satisfied with its general arrangement and management? Not at all. It is obviously unsuited for a hospital.
1561. The building is? Yes. It is three houses knocked into one. It was never intended to remain a permanent hospital. We have been making endeavours for the past ten years to get a new hospital.
1562. The management is satisfactory? In what way?
1563. I mean as regards the Board and the nursing arrangements? I think the nursing arrangements are very satisfactory, but I do not think that the Board take sufficient interest in the hospital. We have a very large Board, and I think that the majority of them pursue a policy of masterly inactivity. Only a few of them take much interest in the place.

1564.

C. P. B.  
 Clubbe,  
 M.R.C.S.E.,  
 L.R.C.P.

26 May, 1899.

1564. I see that the large majority of the Board are ladies? There are twenty-two ladies, fourteen gentlemen members, and four senior honorary medical officers, making eighteen. There are eighteen men and twenty-two women, so that we have an unwieldy board of forty.
1565. Is there a house committee? There is a house committee appointed from the Board, composed entirely of ladies, and that is practically the executive of the hospital. I think it would be much better if the house committee consisted solely of men, or half of men and half of women.
1566. There are no Government representatives on the Board, I think? No. The President and the Secretary, and, I think, the Treasurer, really are *ex officio* members of the house committee, but they rarely attend. The hospital is managed pretty well entirely by the house committee.
1567. Then it is managed chiefly by ladies? Yes.
1568. You do not think the management by ladies quite satisfactory? I do not. They have not the business capacity.
1569. Not because they are too economical? No; I do not think that.
1570. You have taken a very active part with regard to the diphtheria branch? Yes.
1571. You have performed most of the operations there for many years? Yes. I have had entire charge till quite recently.
1572. Now you have given over the charge of that branch to Dr. Gill? Yes.
1573. I suppose it is practically a separate hospital? It is really a separate hospital, but it is nursed from the general hospital.
1574. But even the medical attendants are separate, so that there is no danger of infection? Dr. Gill is the pathologist, and he has no beds on the general side.
1575. And the resident medical officer only goes in case of emergency to the diphtheria hospital? Yes.
1576. The anti-toxin treatment has been used there now for some years? We began to use it in 1895.
1577. Has it been a very great success? Yes. It has lowered the death-rate from 50 to 24 per cent. The death-rate last year was 17 per cent.
1578. What was it the year before? The year before that it was 18 per cent.
1579. I ask for the two years to show that this lowered death rate was not an exceptional thing? This year there has been no death at all so far.
1580. Do you think it likely that the death-rate will be further decreased? Yes; I feel sure that it will. Formerly we did not give enough anti-toxin. In the first place it was very expensive, and we did not know much about it. We find that we can give much larger doses. If it is given earlier and in sufficient quantities I believe there will not be any deaths from diphtheria at all.
1581. Then the diphtheria hospital has been a very useful institution? Yes; 884 children have passed through it since it opened in 1893, and there are only twelve beds. We opened the hospital in July, 1893, when there were 75 cases with 43 deaths. In 1894, there were 137 cases with 68 deaths; in 1895, 184 cases with 42 deaths; in 1896, 177 cases with 34 deaths; in 1897, 160 cases with 31 deaths; in 1898, 151 cases with 26 deaths.
1582. The hospital has been objected to as likely to be a focus of disease;—has there been any real ground for that objection? No; as a matter of fact there have been very few cases of diphtheria in the Glebe. We hardly get any cases from the Glebe; but if it was a focus of infection, we should get more of them.
1583. The number of cases from the Glebe has not been greater in proportion to the population than those from other districts? No; I think the number has been less. We have a table in the report showing where the cases come from. There were nine cases from the Glebe last year.
1584. You do not know of any case that was fairly attributable to the presence of the hospital in that district? I do not know of one.
1585. I think it is proposed that the new hospital shall be built upon the site on which the diphtheria branch now stands? Yes.
1586. Do you think that a good site? I think it is as good a site as we are likely to get near Sydney.
1587. Then would you require a new place for the diphtheria hospital? We could not build our new hospital there until some provision was made for diphtheria cases.
1588. Have you formed any opinion as to where a new infectious diseases hospital should be? I think should be somewhere central. It should be get-at-able, so that acute cases may be safely conveyed to it.
1589. The necessity for its being near has more applicability to diphtheria than to other infectious diseases? Yes; because the children are very frequently brought when they require an immediate operation.
1590. So that if you had a small hospital fairly near for diphtheria and urgent cases, there would be no difficulty in having your ordinary infectious diseases hospital at some distance? No.
1591. What diseases should go to an infectious diseases hospital? Diphtheria, scarlet fever, measles typhoid, and whooping-cough, I suppose. There is no provision for children with whooping-cough in Sydney, and though many of these children are very seriously ill, we cannot take them in, because we have no means of isolating them.
1592. You would add erysipelas and lock cases? Yes.
1593. That would involve the necessity for a large hospital with divisions? Yes; separate pavilions.
1594. You are not likely to get a site of that kind very near Sydney? No. Probably there would be a disturbance in any locality in which we proposed to start it.
1595. I gather that the diphtheria branch of the Glebe Hospital is very expensive? It is expensive. Each bed costs £81, and the cost of each patient is £6 5s., whereas on the general side the cost of each patient is only £4 13s. It is not very expensive.
1596. It is expensive comparatively? Yes.
1597. And that arises from the fact that you have to have a so much larger proportionate nursing staff? Yes; it has always to be kept up because you never know when a rush of diphtheria is coming.
1598. And your nurses are only able to spend a smaller number of hours on duty than in an ordinary hospital? Yes. They have eight hours on duty instead of twelve. There are three relays.
1599. Partly from the strain of the cases, and partly from the atmosphere in which they live? I think so.
1600. What is the average stay of the children in the hospital? It has not been calculated out, but it is about three weeks.

C. P. B.  
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 L.R.C.P.  
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1601. And then what do you do with them after that? If we can, we send them to the Coast Hospital; we even send them before they have been in three weeks; but very often the Coast Hospital cannot take them. Then we have to keep our beds full of convalescent cases which are still infectious. It ties the beds up. It would be better to transfer the cases after they had been in a fortnight to a convalescent hospital.
1602. They are in an infectious condition for how long a time? For a month or six weeks, but before we send them out to their homes, unless we are very crowded, we make sure that they are not infectious by taking a cultivation from the throat. This is done when they are getting well every day till we find no bacilli; then we know that they are safe.
1603. Do Dr. Gill's duties include diagnoses for outside practitioners? No.
1604. He does nothing of that sort now? He may do it as a matter of courtesy.
1605. It was done at one time, was it not? Yes; when we had a house surgeon there.
1606. I suppose it is now done in Macquarie-street, at the Board of Health establishment? I do not think it is done officially there. I do not think it is done anywhere. As a matter of courtesy, we do it at the Glebe occasionally.
1607. Are fees charged for that? No.
1608. *Mr. Barling.*] The public will read with great satisfaction your statement as to the increasingly successful effect of the anti-toxin treatment:—are there any after ill-effects resulting from the use of anti-toxin? We have not noticed any ill-effects resulting even after very large doses.
1609. In the early stages of its use I believe that even the doctors were fearful on that score; but their fears have not been borne out? No; nor have they been in Europe.
1610. With regard to the general hospital for children, you said that it was most unsuitable? Yes.
1611. What steps have been taken, beyond obtaining the requisite land, to get a better hospital? No steps have been taken.
1612. *Mr. Walker.*] Have you many typhoid cases in the hospital? Yes, a good many.
1613. Have you more than your usual number there? Yes, there have been more recently.
1614. Do those cases come from the neighbourhood of the Glebe or from other parts? From other parts.
1615. The number is rather in excess of what it used to be? Yes; I think so. If a case of typhoid comes we take it in, no matter where it comes from, if we have a bed.
1616. With regard to the diphtheria hospital, there seems some increase there? Yes; diphtheria cases come from all parts of Sydney. Although the hospital is situated in the Glebe, we do not consider it a local hospital. It is the Sydney Children's Hospital.
1617. Complaints have been made that there are more cases than you ought to have there, both typhoid and diphtheria cases? We get as many diphtheria cases as we possibly can. That is the object of the hospital, is it not?
1618. Yes, it was established originally only in connection with the Glebe? It has always been a general children's hospital for Sydney.
1619. I do not think so. Have you heard of an application being made for a site for a children's hospital elsewhere? We made application for a site at Paddington, above the old rifle-butts; that was two or three years ago.
1620. That was refused? Yes; because it was thought that it would injure the sale of the sites around the Centennial Park.
1621. Then they made another application for a site at Kensington? I do not know. I should not agree to that; it is too far away from Sydney.
1622. *Dr. Manning.*] With regard to diphtheria;—do you think it would do if there was a small receiving hospital somewhere near Sydney for diphtheria and urgent cases, and the majority of the cases went to the Coast Hospital? I think it might.
1623. The Commission would like to know your views as to the pay system in the hospital; the question is, should the hospital be only for the necessitous poor, or should sums according to the means of the applicants be charged? I do not think that they ought to be charged anything at all.
1624. Then, would you take in gratuitously people of moderate means who could afford to pay 5s., 7s. 6d., or 10s. a week? If they could only pay 5s. a week I should say that they are fit subjects for hospital treatment.
1625. Then where would you draw the line, as far as payment is concerned? If a man could pay 30s. a week he ought not to go into a hospital; he ought to be in some provident society. Perhaps one would have to draw the line in cases requiring an operation, where they could not pay for the operation; but if it was a purely medical case I would not take the patient in if he could pay £1 a week, because I think by that we are pauperising people. In fact, the hospitals are not doing their legitimate work. People who have no money at all are crowded out, whilst well-to-do people, who can afford to pay proper fees, come into the hospital, and they do not feel any shame in doing so. They say, "We are paying;" but they are not paying.
1626. You think it is taxing the honorary medical officers unfairly to take in these cases? Very unfairly.
1627. Besides that, it is competing with the general practitioner? Yes.
1628. There do not appear to be any hospitals in Sydney—private hospitals or nurses' homes—to take in cases that can pay only small amounts per week? Some of the nurses' homes will take them in for £2 per week.
1629. Then the doctors' fees are in addition to that? Yes.
1630. If the hospital did not take in those cases, it is possible that private hospitals or homes might be established for them? They would spring up at once.
1631. At a cheaper rate? I think so.
1632. You do not think it right that the hospital should make a profit out of any of their cases? Certainly not.
1633. You do not object to people going into the general wards who can afford to pay for maintenance? The maintenance at the Prince Alfred Hospital is over £1 a week.
1634. You do not object to that, but you object to cases going in out of which the hospital makes a profit? Very much. Still, as I said, I object altogether to the payment system.
1635. But you see the difficulty that surrounds the matter? It is the difficulty as to funds. The charitable public ought to subscribe, and I think they would if they knew that only poor people went into the hospital.

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1636. You think that taking in richer people, and getting payment from them, rather deters subscribers? I think so.

1637. Speaking of out-patients, do you approve of payment by out-patients for registration? No.

1638. Have you any system of that kind at the Glebe? We have. The out-patients formerly were asked to contribute what they could at every attendance. Recently there has been a rule passed, according to which each out-patient at the first attendance has to pay 1s., if he or she can afford it; but they are not pressed. I do not think it is a good plan.

1639. What are the objections to it? I think if they are so poor that they have to come to the hospital, they ought not to be asked to pay anything. In coming from a distance they have to pay tram fares, and it is very hard on some, and those on whom it is not hard ought not to come.

1640. Do you think everything possible is done by the hospital authorities to detect abuses in connection with the out-patients' department? They make an effort. I do not know whether everything possible is done: but frequently, at the Prince Alfred Hospital, people slip in who can well afford to pay. I can give an instance. I operated upon a man in Prince Alfred Hospital some three years ago, and when that man made application to the hospital he was asked what he was earning, and he said he was not earning anything. It was found, however, that he had £10,000 put by. He went into the hospital for the express purpose of cheating me. He had seen some friend who had been operated upon by me, and he was told what the man paid me. He said, "O you are a fool, I am going in to Prince Alfred Hospital to get it done for nothing by the same man." There are many cases of that kind.

1641. Do not you think it is advisable that there should be some officers on the staff whose duty it should be to make inquiries at the peoples own homes? Yes, it is a very good idea. That is what they do in Manchester. They cannot inquire into every case, but they send an officer to inquire into about one case in every ten.

1642. The very fact of its being known that is done will very likely act as a deterrent? Yes.

1643. I gather that some inquiries have been made here, but they have only been spasmodic? It has not been done regularly.

1644. The enlargement of your out-patients' department has led to a very large increase in the number of patients has it not? Yes. For years and years we had no out-patients' department at all. The out-patients kept coming, however, in spite of our efforts to prevent them, and we found that we had to make some provision for them. It is only quite recently that we engaged a dispenser to dispense drugs for them.

1645. In every case where you enlarge a department or give extra facilities you get them taken advantage of to a very large extent by the public? Yes.

1646. People find out that they have got complaints that require medical treatment when they think they can get them treated very easily? Yes. Very strict inquiry is made into the position of every applicant to the out-patients' department and people are refused every day.

1647. Those inquiries are only made at the hospitals—the people are not followed to their homes? No.

1648. Do you think the hospital accommodation at Sydney is sufficient at the present time? I think it probably would be if a lot of those people who have no right in the hospitals were excluded.

1649. That is if paying patients were kept out? Yes.

1650. If this is to take place, can you give any suggestion as to the best way in which it can be carried out? The Childrens' Hospital should certainly be increased in size. In summer we have to refuse many cases. The cases of gastro-enteritis are more numerous than any others, and mortality from that is very large indeed. There are many other cases that we could save if we had more hospital accommodation. You were asking how we could increase the accommodation. Well, in the case of the Glebe, funds might be got, and a new hospital built, one with double the number of beds that we have at present.

1651. Then in connection with other hospitals, what would be the most advisable way of increasing the accommodation? It could be done at the Prince Alfred Hospital by building the proposed wing and new pavilions.

1652. You think that would be the best way? It would be a very dear way; but Prince Alfred Hospital is a large central hospital; it is used for educational purposes; and it is important that the beds should be there rather than a distance away.

1653. Why do you say it is a very dear way;—can you point out a cheaper way? I suppose there is no cheaper way of building at Prince Alfred Hospital, if you carry out the lines on which the present building has been erected. As you know there is a much cheaper way of building a hospital. Look at the Coast Hospital.

1654. Would you advocate a cheaper hospital on another site? No. I think it would be better to add to the Prince Alfred Hospital, as it is a medical school.

1655. Especially as the administrative parts are already built? Yes.

1656. Do you know how many private hospitals there are in Sydney? I suppose there are quite a dozen.

1657. And in the suburbs? I include the city and suburbs.

1658. Are those private hospitals well conducted, as a rule? Yes, they are very well conducted.

1659. Is the nursing in them satisfactory? Very satisfactory.

1660. Have you heard of any abuses in connection with them? No.

1661. Do you think it is necessary to register or license them? I do not think so, except the lying-in hospitals.

1662. You think that it would be a good thing as regards those hospitals? Yes; I believe the lying-in hospitals have to be registered. If, however, they were not well conducted the doctors would not support them.

1663. Might they not be used for abortion and things of that kind? Yes; but it would soon be found out, and respectable medical men would not send their cases there.

1664. You say they are good institutions;—do they supply all that is necessary for private cases? Yes.

1665. *Mr. Barling.*] I think we understood you to say that you advocate that no payment whatever should be made for hospital accommodation? No.

1666. Without exception you would eliminate payment, so that hospitals can be used entirely for the necessitous poor? Quite so.

1667. There is a certain class of cases that have exercised the serious consideration of the Commission, namely, that portion of the population, not belonging to the working classes, who have incomes from £200

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- £200 or even up to £300 a year; it would be almost impossible for them to pay the fees that would have to be paid if they could not go to a hospital, and we are anxious to get opinions as to how that class of cases are to be dealt with? They can be dealt with if they join the Medical Aid Society.
1668. But they do not do that; that class of the population are almost shut out? The Medical Aid Society take them up to £300 a year.
1669. I refer to a class of persons that are not brought into contact with the working classes, and you could hardly mix them up together? They would not have to mix up at all if they joined the Medical Aid Society.
1670. What is that Society? The medical men of Sydney started a society, called the Sydney and Suburban Medical Aid Society. Every doctor in Sydney belongs to it or can belong to it, and certain of us are on the consulting staff. The fees are very small. I think the doctors would get on the average about £1 a year. A patient must stick to the same doctor for a quarter. He may choose any doctor he likes, and if he is not satisfied after the expiry of the quarter he can choose another doctor for another quarter. If a patient is seriously ill, and the doctor wants a consultation, he gets a member of the consulting staff, who sees him for half fee.
1671. How long has that society been in existence? About two or three years.
1672. It is not generally known, I think? It ought to be more widely known.
1673. Can you give us details with respect to it;—it will be interesting to the public to know something about it? It would be better to have before you the treasurer and secretary of the society.
1674. How are cases dealt with in which operations are required? Those cases would have to go into the hospital.
1675. But you would not take them in the general hospital? Yes; I would take them in; but I would not let them pay anything.
1676. If a person is getting £200 or £300 a year it would be hardly fair to let him come in without paying something? You think they would feel that they were being pauperised?
1677. They would like to pay something, but they could not pay the heavy fees necessary in a private hospital? A great many medical men will take such cases in a private hospital, and not charge a fee at all.
1678. What are the fees at a private hospital? From eight to three guineas a week. The difficulty can be got over in this way. Lots of men would far sooner do a case in a private hospital for nothing than go into the general hospital. It is done at present. I know doctors who frequently do large operations, and charge nothing, provided they pay the private hospital fees.
1679. *Mr. Walker.*] Is there any membership of the society, or is it a society got up to deal with all cases? With all poor people. There is a wage limit in connection with it.
1680. Do they subscribe anything, and do they have tickets of admission? No; they pay so much a week or so much a month.
1681. And there is no memorandum or ticket to indicate that they can come to the Medical Aid Society? No.
1682. The Medical Aid Society visit them? Yes; but they have to belong to the society before they can call in a doctor.
1683. Their names are registered? Yes; the valuable part of it is that all the decent and respectable doctors of Sydney belong to it, and all the senior men are consulting doctors. Dr. Rennie was the secretary.
1684. *Dr. Manning.*] Are there any other particulars that you would like to give us? I should like to explain something that I said at first about the ladies. What I meant to imply was, that I think the hospital would be better managed, if managed by more men. I do not mean to say that it is badly managed now.

James Graham, M.B., M.S., M.P., sworn and examined:—

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1685. *Dr. Manning.*] You are a Director of Sydney Hospital and of Prince Alfred Hospital? Yes.
1686. You were formerly Medical Superintendent, and then one of the honorary physicians to the Prince Alfred Hospital? Yes.
1687. You have given much attention to hospital matters? Yes.
1688. Are you aware of the conditions under which the dispensary in Regent-street is managed by the Sydney Hospital? It is managed purely and entirely as a dispensary, a place for dispensing medicines for men and women who come there casually. There is little or no systematic surgical or medical treatment carried on there such as is done in the outdoor department attached to the main hospital. None of the minor surgical operations are done there, no extraction of teeth, no opening of abscesses, dressing of wounds, setting of fractures. It is simply a place where people get medicine.
1689. So it is not a dispensary in the sense understood in Great Britain? No.
1690. There is no visiting of patients at their own homes from it? No; some years ago the officers appointed to look after it were paid a small sum, and one of their duties was to visit patients at their homes, but the thing fell into disuse, and now nothing of the sort is done. There is no visitation at all.
1691. What is the amount of the Government subsidy? The Government subsidy is £600 or £700 a year. I should like to say that I brought under the notice of the Board of Management in the Sydney Hospital the unsatisfactory character of the work done at the dispensary, and was the means of persuading the Board to abolish it. The Board agreed to give it up, but unfortunately we had a lease of the building for two years to run, and we had to make some use of the building. When the place was abolished about three years ago, the parson of the district, Mr. Boyce, and Mr. McGowen, M.L.A., made representations to the Government to the effect that it was a hardship to the people to rob them of this charity, with the result that the Government stepped in and said, "Well, we will persuade the hospital authorities to carry it on," and a sufficient provision being made in money to carry it on, the hospital was obliged to take it up again.
1692. What rent is paid for the place? About £130 a year with taxes.
1693. What are the other expenses in connection with it? Purely the cost of medicine.

1694.



1694. Have you a dispenser there? There is no special dispenser; he is the dispenser attached to the main building. J. Graham,  
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1695. You do not think it is necessary or useful work? I think it is an absolute discredit to us as now conducted. That is my view of the question, but I think it could possibly be made to do good work, and if my suggestions had been carried out it would have done good work. It would if it was established as a dispensary similar to those in the Old Country, where a doctor resides and attends casualties, sets broken arms, extracts teeth, makes casual visits to deliver women taken ill, and so on. We should make a pure dispensary of it, and put it under the rule of some charitable organisation; then I think it could be made to do good work, but as it is now I do not think it is a credit to any scientific institution. 26 May, 1899.

1696. You would have more than one medical officer for the whole of Sydney? I think one man could do the work, because the amount of casualty work that you get is very slight. I know from my experience of the Old Country that one resident dispenser in a huge district can do a great deal of work of that kind. I think there is a want of that type of assistance. I suggested when I got the Board to abolish the institution, that it might be handed over to the Students' Medical Society, who might run it themselves. It might be conducted as a medical mission where you combine religion with medical work. That type of work is carried on all the world over.

1697. A medical mission? Yes, or purely a dispensary.

1698. On English lines, visiting people in their own homes? Yes.

1699. You are of opinion that there is a want of that sort? Yes, a distinct want. The experience of every medical man in the city is that there is a difficulty of knowing what to tell poor people when they come begging you to see a sick man or woman. You send them to a hospital unless you go and attend them as a matter of charity, which you often have to do. A man comes weeping and tells you that his child has broken its arm, or that he has a wife who is dying, and he is in destitute circumstances, and you must either attend as a matter of charity or send the case to the hospital.

1700. Then they go to the police, the police surgeon is sent for, and they are sent into the hospital to occupy beds, he not having time to attend them? Yes.

1701. Do you think an institution of this kind properly administered would prevent a good many people being sent to the hospital who are now sent there? Yes, I think it would. It would relieve the hospital very much of a form of congestion which should not exist.

1702. You talk of putting them under the Students' Medical Society;—do you not think it would be well administered as part of the Benevolent Society? I do not think so. I think that anything connected with scientific work should be out of their hands, and you cannot dissociate the scientific from this class of work.

1703. You say it will be done at a very much more reasonable rate if done by an organisation already existing than by one started as a separate affair? Yes; because you would require a good deal of voluntary work which you would readily get from such an organisation as the Students' Medical Society. You would have to put in such a type of doctor as is found in the Students' Medical Society,—young graduates. There are plenty in the society who would do good work, and, moreover, it would be educational work for the students. Their course of study prescribes that kind of work, and they must get it either at the hospital or from a doctor, or else in some way that has not yet been established, from a dispensary. I mean the term that he has to put in for outdoor visiting or medical work. He could get that education from such an organisation as the dispensary, so it would be educational work too.

1704. The Commission would like to know your views as regards the pay system in hospitals; whether hospitals should be only for the necessitous poor, or whether a sum according to the means of the applicants should be charged? That is a matter which has been a difficult question experienced by all administrators of hospitals. It is a question that has been prominently before the British public for the last year or two especially, and they do not seem to get "any for'rarder," as they say. No doubt the thing has to be managed entirely by the Board of Management. No outside law can be brought in for their guidance. When they do try to manage it the Board of Management find themselves in a hopeless quagmire. Some years ago the Prince Alfred Hospital directors appointed a detective at a salary of £3 a week for three months to go amongst the out-patients and watch those who applied, and to follow them up to their homes and take a note of the circumstances surrounding the case and report thereon to them. The sum and substance of the report was very interesting, but it only amounted to this, that whilst here and there there seems to be a case which might easily be regarded as a case of swindling, as far as a man can be said to swindle who comes for relief when he should not, they were mostly cases of respectable poverty. It was suspected in the first instance that some were cases that should not come to the hospital; but with the services of a paid detective we could not find any very substantial ground on which to take action. It seems to me that the most you can hope for is to try and educate public opinion up to the fact that the hospital is only a place for poor people. No man or woman ever seeks to go into the hospital unless driven to it in Scotland. I think there are more abuses in the hospital system in England. In Sydney it is abused, but I have, at all events, not been able to find any serious amount of abuse; and I have watched the thing very closely. In cases that I have thought were cases of abuse, on inquiry, I have found sometimes that the cause of their coming to the hospital was a recommendation of some doctor. For example, I remember one case in which a patient presented herself at the hospital and said that she was willing to pay £20. I said, "If you can pay £20 you have no right to come here." She said, "I have been to a hospital surgeon and he will not operate under 50 guineas. I can sell the things in my house and realise £20, but I cannot raise 50 guineas, and the doctor tells me that I had better go into the hospital." There was a patient whom I certainly regarded as not a suitable person to go into the hospital, but I was forced to admit her. It will be found that many of these cases are sent by the doctors themselves, who would rather send the case to the hospital and forego their fees, and have the comfort of no responsibility.

1705. Do you think that the hospital should receive sums of 5s., 10s., and 15s. a week from patients; and, if so, what limit would you place upon the amounts? In admitting patients it is a good thing no doubt to regulate the admissions by the wage-earning limit; then the difficulty comes in, and you have to leave it to the discretion of the Board. A man who earns over the wage limit may be ineligible; say it is a case of bronchitis, but next month he may be highly eligible; he may have a tumour in the abdomen. Each case must be left to the discretion of the management. I do not see what harm you do in collecting a few shillings from patients who come to you. You relieve the patients of the bitter feeling that he is at the hospital entirely

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- entirely on sufferance. I think it is a humane kind of thing to say pay what you can. I have taken 6d., I have taken 2s. 6d., and 7s. 6d. I have taken various sums acting on that principle.
1706. Would you adopt a limit as to the sums you would take? Well, if a patient would pay readily £2 or £3 a week, I would not take that patient in unless I thought his circumstances demanded it. There again you have to leave it to the discretion of the management. If the patient had bronchitis I would not take him in. If it was a case of hernia, which required two doctors and two nurses and the great expense of a surgical operation, I would recommend that case without hesitation.
1707. Do you think hospitals should ever make a profit? No; I think it is wrong. That is an unjustifiable position for any hospital to take up.
1708. Then the hospital ought not to charge more than the maintenance rate? The question is, what is the maintenance rate. Perhaps you mean what they are actually out of pocket by the end of the year.
1709. I mean the average cost per bed? No, I do not think they ought to charge more than that.
1710. Do you approve of any payment for the registering of out-patients? Well, that comes under the same category as taking a collection from the patients who come in. I have watched the type of patients who come in now and the type who came before the shilling was charged, and I find that it is not altered. It comes to this, however, that we get over £600 a year by the payment of a shilling each from the same class of people from whom we got nothing before.
1711. It has not acted in any way as a deterrent as regards the number who come to the hospital? No; I do not think that is the source of attraction to patients. I think the principle that gives honorary medical officers the liberty to develop out-patients' departments is the principle that causes all the trouble. The Sydney Hospital has something like 100,000 out-patients in the year. That evil has arisen because there has been no serious check upon the honorary staff, who have a large say in the management, and every man who gets appointed wants to have as big a clientele as possible. It is the road to professional success, and the Board have been lax in allowing huge out-patients' departments to spring up in a building entirely unsuited for out-patients' work. If you get a man to start a special department he will get dozens to come. If you start fifty more out-patients' departments you will get them all largely attended.
1712. Every enlargement of the out-patients' department, and every new specialist appointed, will bring a large number of patients? Yes.
1713. Then there must be considerable abuse? It comes to this: Disease in many instances is a subjective thing—it is a nervous business—and a man may come with a rash thinking he has skin disease, though that man could get on very well without a doctor. That class is common amongst outdoor patients. A large number are attracted to the hospital thinking that a bottle of medicine is the elixir of life, a panacea for all human ills.
1714. Do you think the present hospital accommodation of Sydney is sufficient? I think the present accommodation at the Sydney Hospital is sufficient, and I think that the out-patients' annex is altogether too large and ought to be abolished or reduced, but I do not think that the hospital accommodation at Prince Alfred is sufficient for it either as a general hospital or as a teaching school.
1715. If the hospital accommodation is to be increased, what will be the best way of doing it? I think it will be by the completion of the original plan of the Prince Alfred Hospital.
1716. By adding two or more pavilions? Yes. I do not approve of the suggestion that has been thrown out of the Government taking up the work and carrying it out at Little Bay, because there the work is carried on by paid officers, and it is never so well done as when it is done under the full light of public criticism.
1717. That is particularly with regard to operations? Yes.
1718. You think a large number of cases at the Coast Hospital—some of a chronic character—could be treated quite as well at the Government asylum under proper conditions? Yes. Nature will often cure them.
1719. The operations, especially major operations, ought to be done in the hospital within the city under the intelligent supervision of members of the profession? Yes; because the average man who lays himself out specially for that work is always very subject to the keen criticism of the casual practitioner who is entitled to come and see what is doing, and professional criticism always keeps that man up to the mark.
1720. So you think that the place situated at Little Bay should never be used for operations? No, unless for casual work.
1721. Do you know all about Moorecliff? I know something about it.
1722. Do you think that institution is really necessary? No, I do not think it is necessary; but I think it has arisen like the other out-patients' departments, because members of the staff have had a considerable say in the management of the Sydney Hospital, and naturally enough each man looked after his own department. I do not think Moorecliff is necessary for this reason: Many of the cases there are chronic lid cases, which certainly could be treated just as well, and better, at Little Bay.
1723. Or in any properly-officered Government institution? Yes; the great bulk of the eye cases there—there are between sixty and seventy beds—ought to be treated in some other Government institution. They are nearly all Government patients to start with, and the rest of the cases could be accommodated at the Prince Alfred Hospital, or in that portion of the Sydney Hospital which is now used for lock cases, which ought not to be there, but which ought to be transferred to some other Government institution. There is a portion of the Sydney Hospital building set apart for lock cases, but I think the place is totally unsuited for that line of work. That part of the hospital ought to be emptied of its present cases, and the eye cases should be put in there.
1724. So that Moorecliff could be done away with by sending a few cases to the Sydney Hospital, and certain other cases to the Prince Alfred Hospital, and a large majority could be put into other Government institutions? Yes; Moorecliff has become a huge department, with four honorary doctors.
1725. Have you any knowledge of private hospitals and nursing homes in Sydney? Yes.
1726. Do you know how many there are? I could not say; they are increasing every month. Every nurse that goes out thinks it her duty to start a private hospital. I think it is a good thing; but it is a pity that there should not be some kind of supervision over them.

1727. On the whole, you think they are well conducted? Yes; they are chiefly managed by nurses that one personally knows, and has helped to train—Sydney Hospital and Prince Alfred Hospital nurses.

1728. You think they ought to be registered and licensed? I think so; I think it is a healthy rule.

1729. Both for sanitary reasons and for reasons applicable to the management? Yes.

1730. You are aware that there is a licensing system in Melbourne under the Board of Health? Yes.

1731. It would be necessary also to keep a register of the patients admitted and their form of disease, so as to prevent abuses? I think that would be a necessary portion of the registration. Of course, for statistical purposes it will be desirable, and also to see that the clauses of the Public Health Act are carried out. For example, there may be infectious cases, which they may fail to report.

1732. What about the charges;—do they vary? They are coming down very much. The law of supply and demand is bringing them down. There are plenty of respectable, cleanly, well-conducted places that will take in a patient at from £1 a week upwards. That is what it is coming to now; and I think it is a very good thing. One has no compunction now about sending patients to a general hospital who can pay a few shillings a week, knowing that there are private hospitals which will be as considerate to the patients as a general hospital.

1733. Can you tell us anything about the newly-established Medical Aid Society? There are two Medical Aid Societies—one established by a private company, and the other by the British Medical Association. The one established by a company is an organisation out of which they hope to get large profits. They send out collectors to induce people to join the society to get the advice and skill of "a man of standing." They pay so much to the "man of standing" whom they employ, a small proportion of what they get, and keep the rest and divide it. The "man of standing" is, of course, regarded by his professional brethren as being beneath professional notice; and those who have lent themselves to the work are tabooed by the profession. The Medical Society, recognising the danger of such an organisation, thought they might start one on similar lines, only, instead of dividing the profit, they divide the money amongst those who offer their services.

1734. What is the principle on which it is done;—what is the amount of subscriptions of those who join, and what are the fees paid? I think they do not have any entrance-fee to pay. They pay about 6d. a week, and the sum total is divided among those who give in their names as being willing to attend. I think the thing has worked out very well. Medical men who have given their services in that way tell us that their remuneration has averaged something like 7s. 6d. a visit.

1735. It is really a provident medical aid society? Yes.

1736. For people rather above the working class? Yes.

1737. And in your view it is satisfactory in its working? It seems to have been satisfactory, and to have met with the approval of the profession as a whole. Of course the unsatisfactory part would be carrying it on on lines similar to those of the other organisation,—sweating the medical men.

1738. *Mr. Barling.*] One question with regard to the Sydney Hospital: I believe that the Government representatives on the Board are appointed for life? Yes.

1739. Can you tell us how it works;—does the Government get proper representation? As regards the management of Sydney Hospital I think the Board is altogether too large. There are about twenty-six members, half of them being Government nominees, and there are two doctors from the staff to advocate the claims of the staff, and a president and two vice-presidents in addition; therefore there are twenty-eight men on the Board. A short time ago the whole of the honorary medical staff were entitled to come in; there were as many as forty then, so that it was a perfect Parliament. That is ridiculous. After a great deal of trouble I introduced a rule to exclude the members of the staff. That was carried, so we do not get them; but we still have a large number of directors.

1740. What would you suggest? A Board similar to that at Prince Alfred Hospital. It is a smaller Board; there are three Government representatives, and from three to six ordinary subscribers' directors. The Government have often sent a type of man who has never taken the slightest interest in the institution, and who is very often absent. On the other hand some have come who took a real live interest in the work.

1741. Would you confine the appointment to medical men? No. I would be very careful about that.

1742. What type of person do you think should be appointed? At the Prince Alfred Hospital you see a type of men who would manage any organisation well. I think they have been singularly fortunate in their selection. I always hold up the Prince Alfred Hospital as being a model institution as regards the Board of Management. There is never the slightest friction, the slightest irritation; but the management conducts the business in accordance with the principles of reason and common sense. I think you could not get a better type of men. I would not exclude medical men, but I would be very careful not to have too many of them. I think it is wrong to have on the Board professional men actively engaged in the hospital work. In the Sydney Hospital we used to have the whole staff on the Board. Now the Act of Parliament compels us to have two. The staff meet once a year and elect two of their number to represent them. I do not know whether it works well; I doubt it. I do not think it is a sound principle. The Prince Alfred Hospital staff thought they would like to have men on the Board, but the Board said "No; they did not think it was a good principle, but if the staff cared to put a man up when vacancies were declared they would leave it to the subscribers to say whether or not they should be represented." I think that is the best way. When you get the medical element largely represented, especially if actively engaged in the hospital, no doubt, they may be imbued with high and philanthropic principles; but every man is apt to look after himself, and naturally enough he cannot but be an interested party.

Edward Thomas Thring, F.R.C.S., Eng., L.R.C.P., London, sworn and examined:—

1743. *President.*] The Commission would like to know your views as to the payment system by patients in hospitals—whether the hospitals should be only for the necessitous poor or the patients should pay according to their means? It is a difficult question. As far as my own experience goes, any abuse which takes place is more likely to be found amongst in-patients than amongst out-patients, and particularly amongst the surgical cases rather than amongst the medical cases. Many patients who require to have some more or less serious operation performed say they are not able to pay the ordinary fees or the nursing

J. Graham,  
M.B., M.S.,  
M.P.

26 May, 1899.

E. T. Thring  
F.R.C.S.,  
Eng.;  
L.R.C.P.,  
London.

26 May, 1899.

E. T. Thring, nursing expenses, and they go into a public hospital; then we find out afterwards that they were really able to afford, at all events, the necessary fees for nursing, if not the full fee for the surgeon, or some very fair proportion of that fee. It has always struck me that such people have no right to fill up beds in public hospitals, which are primarily charitable institutions, when they could afford to go into a private hospital or to have their nursing done at home. I know the objection is made that they cannot afford to pay, but you do not find that a surgeon refuses what is necessary, because he does not get his fee. I have tried to help in my small way to prevent abuses by saying, "Well, if you cannot pay my fee I will do the operation for you if you will pay the nursing fees," thus keeping them out of the hospital.

F.R.C.S.,  
Eng.;  
L.R.C.P.,  
London.

16 May, 1899.

1744. Is that practice generally followed? It is very generally followed I could name men who do that. I find, however, that patients do get into the hospital, who ought not to be there. An instance occurs to me in which we found out that a woman's husband was ready to pay a fifty guinea fee, but she was admitted into my ward, and I operated on her. That was an abuse of charity, and I was wondering whether we could recover the amount.

1745. Having discovered that, is there any power to recover? I do not think there is. In this case the patient simply went home. At the same time such patients simply take up beds that are intended for necessitous cases, and they are practically defrauding the honorary staff.

1746. Does that apply to out-patients? I do not think there is much abuse in connection with the out-patients department, or not as much as there used to be.

1747. Can you tell us what means are taken to discover the means of in-patients? They are always asked questions by the Medical Superintendent, and I believe by the secretary, as to whether they are able to pay the ordinary fees outside.

1748. Do you know whether the inquiries are followed up? I am not sure whether they are at present. At one time they were. The Prince Alfred Hospital employed a private detective to make some inquiries; that was some years ago.

1749. Would you be in favour of receiving sums of any amount from patients? It is very difficult to say either yes or no to that. I believe that if it were recognised by patients who go into the hospital that they go in on entirely charitable lines, that they pay nothing, there would be a greater effort made by many of them to have their needs seen to outside. If it were made a more purely charitable thing, they would scruple to accept it. As it is they pay 10s. or £1 a week, and they look upon it as if they had "bought the place," as was remarked to me the other day. That rather bears in favour of making the system purely charitable. Then on the other hand a man with a small income and a wife and several children to keep cannot be expected to pay several guineas a week. I might point out this, too, that of late years that want has been catered for by private hospitals. There are at least three good private hospitals where the nursing is the best you can get in which patients are received for three guineas a week.

1750. Those hospitals will be beyond the reach of the class you mention? Yes; but they reach a class who might require to be in for a week or two, and who could not pay five or six guineas a week.

1751. Is not that class catered for by a society recently formed called the Medical Aid Society? I do not know. That has not come under my notice.

1752. Then you find it difficult to lay down a general rule? I do certainly.

1753. Supposing the hospitals do receive them, do you consider that in any case they should charge more than the fee for maintenance, that they should make any profit? No; I do not think they should make a profit. The hospital should not be conducted on commercial lines. It should be a charity.

1754. The maximum charge should be the mere cost of maintenance? Yes. It being understood that the patient is not able to pay the ordinary fee for outside attendance.

1755. I suppose you consider that if the hospital requires the payment of something by the patient it would be unfair to the profession outside? There is no doubt that it does affect the profession outside very much. A small accident happens, say, the fracture of a collar-bone, which a general practitioner would be quite able to deal with, no prolonged attendance being required or any great skill. The instinct is for the patient at once to go to the hospital.

1756. And that would not cost very much? It would not.

1757. Do you approve of the practice of charging a fee for registering out-patients? I do not think I do. If they can pay a fee they can pay an ordinary lodge subscription. That class of patient is really catered for by the lodges.

1758. Would there be a danger of an out-patient, who is asked to pay a fee of 1s., presuming upon that and forgetting that it was a matter of charity? I think so. I know that in many cases they do.

1759. Do you think anything could be done in the way of checking abuses by well-to-do patients;—anything more in the way of inquiry? That I am doubtful about, unless you can make them tell the truth, and that you cannot do very often.

1760. Do you think the out-patients department has assumed undue dimensions at the Sydney Hospital? I do.

1761. What do you suppose has led to that? Well, the very easy way in which people can be admitted to the out-patients' department simply on application. They prefer—one hears it over and over again—to go to the hospital because they believe they get the best advice for nothing. They can go to a specialist to get his advice about anything, but if they go to his house they have to satisfy him that they are poor and unable to pay the fee.

1762. The new branches to the out-patients department tend to bring a lot more patients? Yes; and many of those patients could really be treated very well by the ordinary general practitioners. Many of the out-patients one has to deal with really could get the advice they need from their lodge doctor.

1763. Do you think that the hospital accommodation of Sydney for in-door patients is sufficient for the present demand? Well, perhaps not in some directions, particularly in midwifery work, gynaecological, and abdominal work. I am speaking of my own experience at the Prince Alfred Hospital. We have constantly a list of patients waiting to come in for necessary treatment, as we have not the number of beds required.

1764. Do you know how many private hospitals there are in Sydney? I cannot tell you off-hand; I know most of them.

1765. In your opinion, are they well conducted? Some of them, but there are some that I certainly would not send patients to.

1766.

1766. Would you advise that they should be registered and licensed? I would, and particularly for this: I know that in some instances young girls come in and are put on night duty to look after patients who have possibly undergone some serious operation or are seriously ill. Those girls are put in that position long before they are fully competent.

E. T. Thring,  
F.R.C.S.,  
Eng.;  
L.R.C.P.,  
London.

1767. There is a danger that the proprietors of private hospitals may employ cheap labour? Yes, I know that is an abuse which exists.

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1768. Have you heard of any other abuses in connection with private hospitals? I do not think so.

1769. What provision would you make as regards registration? For one thing I would suggest the limitation of the number of probationers to the number of beds in each institution. I think that is the principal thing.

1770. Then would you provide for inspection? Yes, I think so. There is another point. Sometimes the proprietor of such an institution is really not thoroughly trained herself, and, therefore, with possibly the best intentions is not competent to see that things are properly and efficiently carried out, and the supervision is entirely in that person's hands.

1771. The best thing then would really be to see to the competency of the proprietor or of the staff? Yes.

1772. Do you know what is the Melbourne practice? I do not.

1773. Do you consider that the Board of Health would be the proper body to supervise and license private hospitals? I should think so, the machinery is already there.

1774. There is no supervision at present? There is none whatever; anyone may start a private hospital.

1775. *Mr. Barling.*] I should like to ask whether you have any suggestion to make as to how the management of public hospitals generally could be improved? No. I think, speaking for the Prince Alfred Hospital and the Sydney Hospital, that the general management is very good. I do not know anything personally about the Benevolent Asylum. There is one other thing to consider that is the multiplication of Cottage Hospitals, district hospitals, and the real reason for which they are started.

1776. We should like to hear anything you have to say on the matter? It is only this, I suppose the cottage hospitals were originally intended chiefly for emergency cases, but now there is a tendency to develop them into subsidiary metropolitan hospitals, at which all sorts of major work is done, and possibly in some cases without as good an equipment as you would get at a metropolitan hospital.

1777. You are referring to cottage hospitals in the suburbs? Yes; I think they are going a little beyond the original intention, and the purpose for which they are most eminently suited—that is to provide for emergency cases, and accidents, and so forth. For such serious cases as are not emergency cases there is always time, and there are facilities for bringing the patients into the metropolitan hospitals where they are under better control, and under better conditions as a rule.

1778. Of course, the local doctors would naturally like to take part in operations of that sort? Yes; I think that has a distinct bearing on the matter.

1779. I understand you to mean that the expense of those institutions is largely increased at the cost of the charitable donors? Certainly. There has already been a difficulty with regard to the diphtheria branch of the Children's Hospital at the Glebe. The residents object, I think without reason, to its being there. I do not think that there has been any increase of diphtheria at the Glebe in consequence of the Children's Hospital being in that locality. That particular hospital, or branch of it, has been most excellently worked; but every case of scarlet fever and measles has to go to the Coast Hospital unless it is nursed in a private house. I think the provision of special accommodation would be a distinct advantage, because people are now reduced to great straits. A man in a boarding house gets the scarlet fever, what is he to do? he must go to the Coast Hospital.

1780. Where do you think such a hospital should be placed, and what character of buildings should be provided? Dr. Manning will be able to express an opinion on that better than I can.

1781. If you could give us some information on that point we should be glad? I suppose a pavilion hospital would be best.

1782. A very cheap building? One that could be easily cleaned or renewed.

1783. Somewhere near the centre of population? Sufficiently near, and with a sufficient space around it.

1784. What space would be required for a hospital of that kind—10 or 12 acres? It would be very nice to get that area, but you could do with less.

1785. What size should the hospital be;—how many beds would it require? It would be necessary to go into statistics to answer that question. The Board of Health would be able to tell you.

1786. *Dr. Manning.*] There is an idea that these private hospitals are used to some extent for abortion cases? I know that that is so. It so happens that I know of one instance. I do not think it exists at the present moment; but that it was used extensively for this purpose I have fairly convincing evidence.

1787. There is, therefore, all the more reason why private hospitals should be inspected, and that there should be registration, not only of the names of the proprietors, but also of the names of the people who go into them? Yes; this was a very flagrant case. It was worked by a firm of abortion-mongers to a great extent. They had two places, in fact; and when anything went wrong with one of the cases admitted, they passed it on to a private hospital. That has been broken up.

1788. You do not object to the cottage hospitals that you are speaking of receiving medical cases of all kinds? No.

1789. You think they might very fairly receive typhoid cases, cases of pneumonia, and similar cases; but you object to their receiving surgical cases and major operation cases? Yes; because they have not in the majority of cases the requisite equipment, and possibly the staff, as a rule, have not had the necessary experience. There are exceptions.

1790. Why do you object to the Coast Hospital? I do not object to it; but it is a long way for patients to travel, especially patients suffering from a serious attack of diphtheria or scarlet fever.

1791. Yes, a diphtheria patient; but in the majority of cases could not scarlet fever patients, well wrapped up, be got there safely? Yes.

1792. An infectious disease hospital should take in all infectious diseases, diphtheria, scarlet fever, German measles, whooping cough, lock cases, and erysipelas, and it would require to be a very large hospital? Yes, with pavilions for each.

1793. That would require a very large area? Yes.

1794. Which would be difficult to get near Sydney? Yes.

- E. T. Thring, 1795. You think that the Coast Hospital would not do for acute cases of diphtheria, but that the hospital should be nearer Sydney? Yes.
- F.R.C.S.,  
Eng.;  
L.R.U.P.,  
London.
1796. Suppose the present hospital at the Glebe is done away with, it would be necessary to have some receiving hospital for bad cases of diphtheria near the centre of population? I think so.
1797. Do you not think it is possible that there will be fewer cases of diphtheria sent to the hospital soon? Yes; in consequence of the use of anti-toxin.
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1798. Do you not think the doctors will employ it in private houses now that it is better known? Yes; they are doing it now.
1799. That will tend to diminish the necessity for a diphtheria hospital? Yes.
1800. You will not want one of the present size? No; because the duration of the cases is shorter. You mentioned the question of a lock hospital, and I have heard the question raised as to the advisability of founding a lock hospital. It seems to me that the want in that respect would probably be better met by having a lock ward attached to the general hospitals for various reasons. For one reason, I suppose we must look upon the metropolitan hospitals as teaching-schools, and if the lock wards were there the students could utilise them more easily. The second reason is, that there is no doubt that to go into a lock hospital and come out of it attaches a stigma to any man or woman. As I suppose we may hope to get some control over contagious diseases some day or other, it would be easier to get women to go into a lock ward of a general hospital than into a lock hospital.
1801. That would be an argument in favour of having the lock wards in the infectious diseases hospital instead of in a separate institution? Yes.
1802. No one knows who goes into the lock ward at the Coast Hospital? No.
1803. They go with the other patients in the ambulance and come back, and no one knows their destination? No.

THURSDAY, 1 JUNE, 1899.

[The Commission met at the Offices of the Public Service Board at 2.30 o'clock, p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT.)

F. NORTON MANNING, Esq., M.D.  
J. POWELL, Esq., J.P.

J. BARLING, Esq., J.P.  
CRITCHETT WALKER, Esq., C.M.G.

Joseph Foreman, M.R.C.S., sworn and examined:—

- J. Foreman,  
M.R.C.S.  
1 June, 1899.
1804. *President.*] How long have you been connected with the Prince Alfred Hospital and the Sydney Hospital? I have been connected with the Prince Alfred Hospital about fifteen years, and I have been for three years a director of the Sydney Hospital.
1805. Will you give us your views as to the system of payment by patients in hospitals? Yes. I think it is absolutely wrong in principle.
1806. Under any circumstances? Well, my opinion is that they have no right whatever to charge in a public hospital.
1807. On the ground that it is a charity? Yes, it is a charity.
1808. Intended only for people in necessitous circumstances? Yes. Those are the people for whom the hospital was built, and for whom the honorary medical men attend, which they do with pleasure. Those people, however, are not the persons who derive the benefit. The friendless are always the ones who are put in the background, and those who are able to pay can get attention at once. If they can pay £1 they are taken without question; if they can pay £2 they are received with open arms. It is a fact; I know a great many instances of it. My statement was recently called in question by the Secretary, and the next day I got a note from one of the honorary medical men in reference to a boy, whom he had to attend in the out-patients' room. The boy came in with a woman, whom they took to be his mother. The boy was so rude to the woman, however, that the doctor said, "You should not talk like that to your mother." The boy replied, "She is not my mother." The doctor said, "Who is she?" "She is the housekeeper," said the boy. The doctor then told him that if they could keep a housekeeper the boy was not a fit person to be there, and sent him away. The father came in in a towering rage the next day, forced his way in, abused the doctor, and said that his wife had been in the hospital and had died there, and that he had paid two guineas a week for her. It turned out on inquiry that the man kept a large boot shop in George-street. There are a great many cases that I know of myself in the Prince Alfred Hospital in which they pay 30s. or £2 a week.
1809. Is there not a very large section of people who are able to pay a little, not £1 a week, and who could not pay medical fees or the nursing fees outside? Yes. It is a very hard drain on those who can pay only 10s. a week. I know that from nearly twenty years' practice in the hospitals. It is a very hard struggle indeed for them. It is worse for those people to pay 10s. a week than for many others to pay a nurse outside two guineas a week.
1810. Then, your opinion is that the hospital should be confined to the use of people in necessitous circumstances? I think that those who by hard grinding are able to pay only 10s. a week will find it a serious matter. If a man, getting £2 a week, has to pay 10s. a week for his wife in the hospital I do not think that is a case in which they ought to take the 10s. a week from him. If he has to keep a family on £2 a week he is entitled to hospital treatment. It is a very serious matter for people in that position to pay 10s. a week for an indefinite time too. They very often have to pay some woman to take care of the children. It is not only that they have to pay the 10s. a week, but they have to find somebody to take the wife's place at home.
1811. That is assuming that those who are prepared to pay 5s. or 10s. a week only do it by a great struggle? Yes, in the majority of cases. My opinion is that if they had a box for free offerings in the hospital, and instead of making a charge it was made known that each one was expected to put in what he could afford, the difference in the results from that system and the other would be comparatively little

J. Foreman,  
M.R.C.S.  
1 June, 1890.

at the end of the year. It would be a very desirable thing for both hospital and the people, because the present system is demoralising the people. When they pay 5s. or 10s. a week the idea of charity ceases. If they pay £1 a week they think they are entitled to extra attention. If they pay £2 a week the airs they put on towards the other unfortunates in the ward you could not really believe unless you saw them.

1812. You think that if a box were provided and the attention of patients was directed to it, and they were invited to give what they could afford, that would be a good system? I do not think the difference would amount to anything at all, but we should be on a proper footing with the patients, and we should have more control over them.

1813. Do you consider it fair to the honorary medical officers that people should be taken in who can pay £1 or £2 a week? No; I do not think they ought to be taken in to pay that. I think that if their circumstances were inquired into they ought to be taken in, and we ought to trust to them to give what they can really afford. Many people can afford to pay £5 or £10, but cannot afford to pay £30 or £40.

1814. That would be in cases of operations? Yes; or of long illness. I think that people ought to have every consideration.

1815. Do you approve of payments by out-patients for registration? Certainly not. I do not think they ought to take a penny in the out-patients' room.

1816. What are the objections? It makes them feel that they are paying for what they are receiving, but the payment is so inadequate that I do not think that they ought to be put in that position.

1817. The benefits received are so much out of proportion to the payments? It is not that, but they feel that they have a right to it, as they are paying. It is only people who are absolutely poor who have a right to hospital treatment, in my opinion.

1818. Do you think that the system of out-patients is very much abused? Well, it is in some cases. As far as my own department is concerned, I do not think there is much abuse.

1819. Do you think that the hospital authorities use every means in their power to find out whether people have means? That is a question that I am not competent to answer. I only know that a vast number get into the hospital under false pretences. People come (particularly from the country)—they are asked if they can afford outside attendance, and they say "No," and we have to take their word.

1820. Unless you follow it up by subsequent inquiry? The damage is done then. You can hardly keep them waiting till you find out in every case whether the parties are proper persons for hospital treatment. The only way would be for people coming from the country to bring letters either from their medical men, or from local clergymen, giving the requisite information. I do not see any other way of doing it. I can give you an instance. The other day Dr. Jenkins told me that he had received a letter from a medical man in Forbes, saying that there were three patients coming to attend the hospital—one was a publican, another was a storekeeper, and I forget what the other one was. They were all able to pay, and were not fit subjects for hospital treatment. I can give another instance which occurred ten days ago. I was asked by Dr. Skirving to see a patient of his in a medical ward suffering from extra uterine gestation. I was going up to examine her when the sister of the ward said that the patient was going out, that arrangements had been made for her to be operated on on Friday, and she was to pay eighty guineas altogether. I did not see the patient, and I do not know whom she went under. That is only a very recent occurrence.

1821. Then it is your experience that the privilege is very much abused by people who are well able to pay? Unquestionably. What I say is that those poor people for whom the hospital is built, and whom we attend with very great pleasure, do not get their rights because their proper privileges are taken away by people in better circumstances, and who practically have no right there unless they come after the others. One patient came to me who had been in the hospital and offered me 100 guineas for operating on her.

1822. Is it not a fact that every particular branch added to the out-patients' department tends to bring many more people into that department? I think that is unquestionable. It must necessarily be so.

1823. Do you think the hospital accommodation for Sydney and the suburbs is sufficient for present requirements? I do not think so.

1824. What would you suggest as a means of meeting the deficiency? I think there ought to be 150 or 200 more beds.

1825. By way of additions to the present hospital or in the form of a new hospital? I should think by means of additions to the present hospital. I do not think it is a wise thing to multiply hospitals, with all the extra expense attached to each one.

1826. Which hospital would you suggest could be best added to? That goes without saying. They cannot add much to the Sydney Hospital—there is not much room there. At the Prince Alfred Hospital there is plenty of room.

1827. Supposing that the Government asylums were put in a position to be managed on hospital principles, and patients were treated there—would not that relieve the Sydney Hospital very much? I have no doubt whatever that they could take the chronic cases there.

1828. You have got many Government cases in the hospital from time to time, I think? Yes, of course. Those are the ones who ought to be there—they are the poor and the needy. It is their privilege and their right to be in the hospital.

1829. Do you know how many private hospitals there are in Sydney? No; they are increasing every day. There must be at least a dozen.

1830. Do you know anything about their management? Some of them.

1831. Are they well conducted? Some of them are very well conducted. There are three or four that were first established . . . the management of which is very good.

1832. Is the nursing satisfactory, as far as you know? I know that at . . . and at . . . it is, and, I believe, it is at . . . too. I know the first two very well.

1833. Do you think that private hospitals ought to be licensed and registered? Most decidedly. I think it is a very great pity that there is not some control and supervision over them.

1834. At present anybody can start a private hospital? Yes, anybody. I know the system is very much abused.

1835. Would you be in favour of the private hospitals being inspected from time to time? Certainly. I think it is an absolute necessity.

1836. To see that they provide proper medical attendance and proper nursing? I should think so.

- J. Foreman,  
M.R.C.S.  
1 June, 1899.
1837. Do they license private hospitals in Melbourne? I do not think so.
1838. At present there is no such provision in Sydney? Absolutely none.
1839. Do you know what the charge is in private hospitals? The charge varies in different hospitals from 2 guineas to 6 and 8 guineas a week. It depends upon the room and, to a great extent, upon the nature of the operation. Sometimes a case requires an extra nurse.
1840. *Dr. Manning.*] Are there any cheaper private hospitals than those you have mentioned at which the lowest charge is 3 guineas a week? I could not say. I think Nurse . . . charges 2 guineas, but I am not sure.
1841. Do you think there is a want of cheaper accommodation at private hospitals? It would be better; but it would have to be on such a large scale.
1842. You think that a cheaper private hospital is a thing much to be desired, but it would have to be on a large scale to make it pay? I think it would have to be on a very large scale.
1843. You have heard, I suppose, that these private hospitals are being abused in connection with abortion? I have.
1844. On good authority? Yes, on very good authority.
1845. Can you give us any idea as to how the number of out-patients at the hospitals could be limited? I do not see how it is possible. Their rule, if they carried it out (but, of course, the honorary medical men cannot enter into that), is that people who belong to clubs are not eligible for out-patients' relief; but that is not always carried out. I think that when a person belongs to a club he ought always to bring a letter from the club doctor.
1846. There is no scheme to limit the number of out-patients;—the number is very excessive now, is it not? Chiefly in the medical department, I think.
1847. You have spoken of patients bringing with them certificates from clergymen;—do you believe much in certificates of that kind? I think they ought to bring letters from their doctors to show whether or not they are proper recipients for hospital treatment.
1848. You prefer one from a doctor to one from a clergyman? Yes; he knows more about the matter than the clergyman would.
1849. Would it not be better, instead of having a certificate, to have these cases followed up to their own homes and inquiries made by a proper officer? I think so. I think there ought to be such an officer; but, of course, in the country you could not carry out such inquiries very well.
1850. *President.*] Do you think that a central inquiry office for all the Sydney hospitals would do—cases for inquiry to be remitted to the central office, and followed up all over the country? I think that would be the best plan.
1851. The hospitals might simply make their own inquiries; then send the name of the person to the central office, so that the inquiry should be followed up wherever necessary? I should think that is the only way that you could do it. You might have one inquiry office, more particularly as the hospitals practically are Government institutions.
1852. *Mr. Barling.*] It has been pointed out very forcibly to the Commission that the salary-earning class, getting from £150 to £250 a year, are utterly unable to pay the high fees charged in private hospitals; do you not think that hospitals are required to take in such cases? I think you ought to have a different hospital altogether if you are going to do that.
1853. Is it not very possible, almost certain, that the abuses which have taken place in connection with the public hospitals are due to the fact that there is no adequate place for that class of the population? No; what we complain of as the honorary staff is not of those people who are gaining from £150 to £200 a year. They cannot afford a long illness—it ruins them; but there is no question whatever that they are treated very leniently indeed by medical men. It is not the medical men who get their money; in a great many instances those people do not pay at all. If they go into a private hospital, very often the medical men attend them for nothing.
1854. I am not referring to the medical men's fees, but to expenses generally? Yes; they are not always obliged to go into a private hospital; when they do go it is nearly always for operations.
1855. Then supposing the medical fees were remitted, still the expenses of the hospital would go on, and these persons could not afford to pay 3 guineas a week? It depends a good deal upon how long they would be there. If a man is receiving £250 a year, and his expenses are about 25 guineas, I think he is able to manage it, because, as a rule, the patient is not in the hospital more than two or three weeks. If the case is a serious one it goes to the general hospital, and one would prefer that it should go there.
1856. That class of the population would rather pay something; and if you debar anybody from going into the hospitals, unless he goes in free, it might keep that kind of patient out;—do you not think that there should be a hospital to meet the class of cases I speak of? No; I do not. I think it is very much better that a few should keep out than that the whole community, practically, should be demoralised, by telling lies as to their means and getting in under false pretences.
1857. Then you do not think there is any need for further accommodation in connection with that class of the population? I do not, because you will find that there are not very many cases of that class. Medical men never object to attend them in the hospital. When they give a clear outline of their circumstances the doctors put them in there themselves.
1858. Into private hospitals? Either into private or public hospitals. If a man has £200 a year and a large family he cannot afford medical attendance, and he ought to belong to a club. £200 a year is the limit as regards membership of clubs. All who have more than that income, we think, are able to pay for outside attendance—at any rate, to some extent; but if a man has less than £200 a year to be provident he ought to belong to a club, then he has not got medical expenses going on. It costs about 2s. a week to be a member of a club, and the payment of that is no great hardship to a man with £200 a year. If he will not make that provision, and if he gets ill, it comes hard on him, but you cannot legislate for anyone who will not take care of himself.
1859. But that class of population would be hardly likely to join clubs; the members of clubs are working men, and you do not find that the two classes of population mix very well? The club practice is more abused than hospital practice.
1860. Is it a fact that clerks in the city belong to clubs? They do; they have an association of their own. The question is whether we should admit into the clubs people who have as much as £300 a year. We have made the limit £200 a year. Some want to make it £500 a year. There are a lot in the clubs  
now



now who have a good deal more than any of us here, and they take advantage of the doctors. The thing is very much abused. J. Foreman, M.R.C.S.

1861. So that class of population whom I have spoken of belong to clubs? There are clubs for those whose incomes do not exceed £100 a year. I do not see what hardships they have to meet with. If the doctor knows them and sends them to the hospital they ought to be taken in without question. 1 June, 1899.

1862. The President was asking you something about hospital accommodation, and I think you said you thought that 100 additional beds would be sufficient to meet the further requirements of the city and suburbs; we have had the evidence of a number of other doctors to the effect that we should require 300 beds;—would you stick to your estimate of 100 beds? I said between 100 and 200 beds.

1863. Do you think that 200 would be the limit? I think it would be ample. You can tell that by the way the beds are filled. Taking it all the year round, there are generally a few empty beds in the hospital. Sometimes you have a rush and a lot of patients waiting. Taking the year round, I think that 200 beds would be sufficient. There would always be plenty of room for urgent cases.

1864. Would they be able to provide that additional accommodation at the Prince Alfred Hospital by adding on to the wings? Yes; there is provision for that—provision for two or more pavilions there.

1865. So that the additional accommodation could be easily provided at the Prince Alfred Hospital? Yes. According to the original plan, each pavilion to cost about £8,000, I think.

1866. A good deal of evidence has been given about nurses; it has been stated in Parliament and elsewhere that the nurses are very much overworked. I should like to draw your attention to a pamphlet prepared by the lady superintendent of the Johns Hopkins Hospital on the subject of the hours of duty for nurses. She points out that in America the hours of duty are as follows:—

In	2 hospitals	nurses	are on duty	in the wards	for 8 hours	daily.
"	11	"	"	"	9	"
"	29	"	"	"	9½	"
"	14	"	"	"	10	"
"	31	"	"	"	10½	"
"	3	"	"	"	11	"
"	14	"	"	"	11½	"
"	3	"	"	"	12	"
"	1	"	"	"	13	"
"	1	"	"	"	13½	"
"	1	(and I am glad to say but one)	"	"	15	"

Showing an average of something like ten and a half hours. That is the number of hours of duty in the Prince Alfred Hospital. The conclusions the writer comes to are—

- 1st. The working hours in the wards being but a portion of the day's work are now in almost all hospitals too long. They should be so arranged as under no circumstances to exceed nine hours, and should, when possible, be limited to eight hours.
- 2nd. The hours set apart for rest and recreation are now necessarily and frequently infringed upon by class lectures or study, in order that the pupil may perform the work required of her. This should, in no case, be done, but these hours should be reserved for the purposes for which they were intended.
- 3rd. When an increase in the theoretical course of instruction becomes necessary or advisable, it should, on adoption, be followed up by a certain corresponding decrease in the amount of practical work required, if necessary increasing the total length of the period of training.

We should be glad of your views on that subject? It is desirable that one should not work more than eight hours, if possible; but it simply means that you must be prepared to meet extra expense; it is simply a question of expense. Nine hours a day is quite long enough for the nurses to work; but you will have to pay if you want anything different.

1867. It would mean a considerable additional cost; but your experience would show that nurses ought not to be worked more than nine hours a day? I cannot say that with regard to their health.

1868. It affects their health? No; they go into the hospitals sometimes not well and strong, and they come out as strong as horses. It certainly does not affect their health. I know several instances in which nurses have had easier times afterwards, and have fallen off. When they were in hard training they were strong.

1869. So you think that ten and a half hours work a day does not have a prejudicial effect on their health; but if the expense could be afforded it would be desirable to reduce the hours to nine per day? Yes; I believe in their having a fair thing; I think that eight or nine hours a day is long enough to work; but as for the hours affecting their health, I have not seen any instance in which it has done so. I have known a great many cases to the contrary—cases in which they have gone into the hospital not strong, and have come out the picture of health.

1870. *President.*] I have here a copy of the rules of the Provident Medical Association, which gives the privilege of membership to people with incomes up to £200 a year? Yes, that is up to £200 a year; many of the clubs go up to £300 a year. If people will have a little foresight, they have not much to complain of. A great many doctors send club patients to the hospital, particularly where they want operations performed, and those patients are always accepted without any question. The majority of the practice in Sydney is club practice.

1871. It would be a proper thing for a club doctor to send patients to the hospital for operations? Every day patients are admitted, particularly in urgent cases. They are sent in with a note, and admitted without question.

1872. *Mr. Walker.*] I think you said that the amount of outdoor relief given by the Sydney Hospital and the Prince Alfred Hospital is rather large? Yes, it is large.

1873. Do you think it is on the increase? Yes, because I think people are very much poorer now than they were.

1874. You could not give us the cost per head? No.

1875. Do you think the institutions are imposed upon by people applying who should not apply? Yes, unquestionably. I have given several instances.

1876. That is rather in going into the hospital altogether, is it not? No; they come to the out-patients' room. It is no uncommon thing for people to come to the out-patients' room and say, "I don't want any medicine; I have just come for an opinion; my doctor told me so and so." They want to confirm it. The practice is abused, and must always be abused; you cannot help it. The only thing you can do is to minimise the abuse.

- J. Foreman, M.R.C.S. 1877. Can you give us any suggestion with regard to minimising it;—you said that an inspector might be appointed, or an inquiry office established, which the two hospitals could refer to, but would not that be rather detrimental to the out-door relief itself if you referred every case for inquiry? It would not be necessary to refer every case.
- 1 June, 1899. 1878. You think that one officer would be able to carry out the whole of the inquiry? No; one man would not be able to do all that.
1879. You think that a central inquiry office would be very desirable to assist you to detect fraudulent attempts to obtain assistance gratis? Yes.
1880. Do you think with the growing state of the city that the additions which you suggested at Prince Alfred Hospital would meet all requirements? They would for a number of years, at any rate.
1881. But what about the northern part of the metropolis, which is increasing to a large extent, would it not be inconvenient to bring patients from there? They ought to have a hospital there, and they are going to build one. They have got the ground, I believe, and they have got some of the money. North Sydney is too large a place to be dependent upon the city.
1882. Could you give us any suggestion as to the accommodation in that locality? I was not considering that at all. I know they are going to build a much larger hospital there, which will provide for all their wants.

Acland O'Hara, M.B. et M.S., Edin., sworn and examined:—

- A. O'Hara, M.B. et M.S. 1883. *President.*] You are hon. secretary of the City and Suburban Provident Medical Association? Yes.
- 1 June, 1899. 1884. Will you tell us when this association was started? It was started about eighteen months ago. I was not secretary when it was started. It existed in a primitive way about ten months before that.
1885. Do you know the circumstances under which it was started? It was mainly started in consequence of the bad effects the proprietary lodges and medical benefit societies were having on the medical profession as well as on the community at large. It was considered that they were doing a lot of damage.
1886. What do you call proprietary societies? They are lodges which farm out the doctors, and those who run them know nothing about doctoring or about medicine. They hire the doctors and make use of them, and of course a large amount of canvassing is done. Any man they can get hold of is sent round the city knocking at everybody's door, canvassing doctors' patients and telling them all sorts of stories to induce them to leave their own medical men. It had a bad effect on the people, as well as on the medical men.
1887. So the society was started as a matter of self defence? Yes.
1888. Was it started on the model of any similar society? It was started exactly on the lines of the society at Eastbourne in England. That society has always been commended by the *British Medical Journal* and the *Lancet*, and even the *London Times*, as being an excellent association. This society is conducted on exactly the same lines as the one at Eastbourne, which has been a great success there.
1889. It would appear that there must be a good deal of clerical work attached to it;—what staff have you? I have an assistant secretary for keeping the lists, and we have collectors.
1890. That is the only clerical assistance that you have? Yes, at present I think that in the near future it is intended to have a good active manager; we had to begin economically at first.
1891. The collector collects the weekly subscriptions? Yes.
1892. Does the collector go round for them? Yes. The people do not need to come to the office unless there is some misunderstanding.
1893. Is the society largely availed of? It is since I took the matter up. Dr. Rennie was secretary before me. I took it over at the end of September last. The money taken now is nearly double what it was when I took it over.
1894. Could you say what the income is? It now averages about £36 a week—that is after I have paid the collectors.
1895. How is the society managed? We have a committee and a sub-committee.
1896. Is the committee elected by the medical men? Yes; the work is mostly done by the sub-committee. The time of the medical men is so irregular.
1897. Does this arrangement enable the medical men to get reasonable fees from this class of patient? It does. The medical men have a horror of canvassing, so I have asked the medical men on the staff of the association to make notes of any patients who have been coming to them, and who were not able to pay the ordinary fees, and I hand those notes to the collector, who goes and endeavours to get the parties to join. That is the way we get them. I have to strictly forbid canvassing.
1898. So the heads of families who plead that they are unable to give the doctor his fees are waited upon by the collector, and have the privilege of joining the society? Yes.
1899. *Mr. Barling.*] How many persons are there belonging to the society? I think there must be 1,700 financial members. We have enrolled altogether about 2,500, but they are a very poor class of patients—people who are very often out of work, and when they are more than four weeks in arrears we lapse them for the time being.
1900. What class do they belong to mostly? The working classes. As regards their income, we have a form [*produced*], which shows the questions that are asked. The members are usually earning about £100 a year. The limit of income for membership is £200 a year.
1901. Do you find that many of the clerical class come in? Not many.
1902. How are the chemists paid? At the rate of 8s. a year. I believe that is the highest lodge-rate that is paid.
1903. That is paid out of the fees? Yes; we pay all that before we divide our money. We have no debts.
1904. These payments of 6d. and 7d. a week cover the cost of all the medicine? Yes; the attendance of the doctor and the cost of the medicine too.
1905. In case of a consultation being required, half fees are charged, I believe? Yes.
1906. Does that mean a consultation at the patient's house? Yes. I am on the active staff myself, and when I have sent for a member of the consulting staff, he has come and only charged half the fee in each case.

1907. Is there a scale of fees? No; the fee for an ordinary consultation is two guineas. The members of the society are charged one guinea.

A. O'Hara,  
M.B. et M.S.

1908. I suppose the society is largely increasing? It is. My great difficulty is to get at the poor people without getting the doctors' private patients. The doctors will never tolerate a man going all over the place. If I could get at the poor people without house-to-house canvassing, no doubt we should have ten times the present number of members; but I have to keep a firm hand on the collectors, and not let them go anywhere except where we are told that someone wishes to join.

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1909. Then the clerical staff of the community do not take advantage of this society at all, although they could with salaries up to £200? With salaries up to £200 they could. The society is not generally known. It is not advertised. I may say that one hospital has already taken an interest in it. The resident medical officer of the Prince Alfred Hospital has been good enough to tell people about it and to give us names and addresses, and we have succeeded in getting members in that way. That is the way that the society could help a charitable institution.

1910. It would be a very proper way? A very proper way. We might have a kind of canvassing if we only had the names of the people going to the charitable institutions, and we could have them interviewed. This would do away with the opposition of the medical men, and lighten the charities as well. A great many could pay much more than they have to pay at the hospital, where they have, I believe, to pay a small fee.

1911. *Dr. Manning.*] What do you pay your medical men in the first instance? We pay all expenses, including the chemist, and the rest of the money is divided amongst the doctors according to the number of patients they have on their list. One patient a month constitutes one share. It is the same with regard to the chemist. Last time I was able to pay the ordinary lodge rate of 16s. a year. I could have paid as much as 18s. 6d., but instead of doing that we put some money into the reserve fund.

1912. In addition to that, you paid 8s. for medicine, making altogether £1 4s.? Yes.

1913. And the very highest for a lodge patient is 26s.? Yes.

1914. And the amount for a great many is from 18s. to 20s.? Yes.

1915. So you were paying more than is paid by the lodges generally? I do not think that the lodges pay more than 16s. That is the regular fee in the city.

1916. *President.*] Is there anything else that you wish to say? I think that the charitable institutions could greatly help themselves and help this society if it were an instruction to the resident medical officers to give all the names and addresses of patients that they know could pay a little, instead of treating them out of charity, because the medical men have a great objection to the charge of 1s. that is made in the hospital. They are sore about it, because it gives people the idea that they are paying for doctor and medicine. A number of them have spoken to me about it, and they say that it is a wrong principle altogether. They maintain that those who cannot afford to pay anything should not be charged at all, and that others who can pay ought not to be there.

Cecil Griffiths sworn and examined:—

1917. *President.*] You are Hon. Treasurer of the Children's Hospital? Yes.

C. Griffiths.

1918. How long have you been connected with that hospital? I have been treasurer for eleven years.

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1919. Were you connected with it in any capacity before that time? No; I may say that I audited the books for some time before I took up the treasurership.

1920. When was the hospital established? In 1879.

1921. Was that on the present site? Yes; it has never been on any other site, to my knowledge.

1922. Was the present building erected for a hospital? No; it was erected for a school, I believe. The hospital bought it.

1923. Were there many alterations made in the building when it was taken over? I could not tell you.

1924. Has the hospital added to the buildings in any way? Yes, very considerably, but mostly wooden structures.

1925. What are the additions that they have made? They made a big room at the back which was originally started as a diphtheria ward. It is in the grounds behind the main building, and there are the washhouses, the observation wards, and the mortuary.

1926. What is the area of the land? I think about three-quarters of an acre for the main hospital.

1927. Is it freehold? Yes. Then there is the diphtheria hospital. When it was found that it was supposed to be dangerous, we asked the Government to assist us to get some building that would do for a diphtheria ward, and the Government granted £250 a year towards the rent of such a building. We had the greatest difficulty in getting hold of anything at all that would suit, or be sufficiently near to the hospital to enable us to look after it. Then the idea struck us that the ground opposite, belonging to Miss Botts, which was in the market, was suitable, and we eventually bought it for £4,000. Then we established the diphtheria ward over there. That is an area of just under 4 acres.

1928. Was the diphtheria ward attached to the hospital from the beginning? No; I think it has been about six years in existence.

1929. Both the main hospital and the diphtheria cottage are now the property of the trustees? Yes; there is a debt on the diphtheria hospital.

1930. Do you know the cost of the main building? I think they gave £6,000 for it.

1931. That would be the cost plus the additions you have made to it? Yes.

1932. Could you get the information as to what the property has cost, plus the additions? I suppose we could get it. Mr. S. A. Stephen used to be the Treasurer, and I do not know whether he has kept a record. I will try to get it.

1933. Do you know what was the cost of the diphtheria cottage? We gave £4,000 for that.

1934. Has it cost anything since? It cost £4,400, including furniture.

1935. What was the cost per bed? About £45. We have about fifty-four beds in the main building, and we should have to reckon the total cost with all the additions. In the diphtheria ward there are twelve beds.

1936. How was the money raised for all this expenditure? I believe the Government assisted at the beginning. With regard to the diphtheria cottage I could not tell you, but we borrowed about £3,000 from Mr. Mitchell's estate; we took £1,400 from the endowment fund. We had no endowments then. We have paid off £500.

1937.

- C. Griffiths. 1937. Is the other property clear? Yes.
- 1 June, 1899. 1938. I do not find from the report what money has been received from the Government? Since I have been treasurer we received a special grant of £500 one year. The other moneys received from the Government are £ per £ on the money raised by subscription.
1939. Have you had Government aid for building purposes? Only one item.
1940. *Mr. Walker.*] You mentioned an endowment fund from which you took £1,400 towards the building;—is there anything of that now? No; the only amount in the endowment fund now is a sum of £40 12s., which was given for special purposes. Mr. Craven gave £100 for building purposes which we had to keep separate. Mrs. Hunter-Baillie left in her will one-third of a residuary estate, and we have had out of that £7,850.
1941. What were the conditions attached to that? It was to be vested in trustees and the interest was to be devoted to the general expenses of the hospital.
1942. According to that you must retain the principal? Yes. Mr. Walker left in his will £750, the interest to be devoted to the general expenses of the hospital. In the event of the hospital ceasing to exist that money goes to something else.
1943. Are there any other legacies or donations? Not that we can afford to keep. They go into the general expenses. We got them every year. Our list for last year shows legacies of £100, £40 1s. 10d., £250, and £200, which had to go in general expenses.
1944. Am I right in supposing that any donations or legacies, not specifically appropriated by the testator, are put into the general fund? Yes; if we could make both ends meet without them we would put them into the endowment fund and invest them. These small amounts are put in the City Bank in the name of the treasurer. I think we shall get another £2,000 from the Hunter-Baillie estate. An annuity was left to a Miss Mackie, but she is dead and the money falls into the residuary estate.
1945. There is a fund called the Perpetual Subscribers' Fund? That is the £750 Mr. Walker left.
1946. Then what are the chief sources of income? The chief sources of income are the ordinary subscriptions, the £ per £ from the Government, interest on deposits, and the patients payments, which come to about £450 a year.
1947. What arrangement is made about auditing the accounts? We name auditors every year and ask them to take the position.
1948. Outside auditors? Mr. Stephen would not allow us to name any member of the Board for the position of auditor. In this case the auditors are two accountants, Messrs. Pratt and Mackenzie. It is not easy to get honorary auditor.
1949. What do you think the annual cost per bed is? We calculate that it is about £45. We make the proposal to anyone who will give us £50 in one year to give them a right to a cot, the cost of which is rather under £50.
1950. How many have subscribed in that way? Only two. Mrs. Sulman has two cots. There are certain conditions laid down in our rules with regard to that. A cot only allows the nomination of one patient. If a cot is occupied, or no nomination exists, when a child is put into it the nomination lapses until the child goes out. Children of all denominations are taken into the hospital if the doctor certifies that they are proper subjects for hospital treatment, and there is a bed vacant.
1951. Does the cost £45 a head include both the main hospital and the diphtheria ward? Yes. Of course, you will see that the diphtheria ward is the great crux. It costs us nearly double as much to keep up the diphtheria beds as it does to keep up the general hospital beds.
1952. Are the accounts kept separate? Yes; the expenses but not the receipts. The expenditure, as you will see from the report, is £1,900 for the general hospital, and £900 for the diphtheria hospital. On an average of fifty cots in the general hospital, that would come to rather less than £40 a bed. In the diphtheria wards the average is £80 a cot. We calculate that the diphtheria beds cost nearly double what those in the ordinary hospital cost.
1953. The apparently high cost is accounted for by the diphtheria wards? Yes.
1954. What makes the diphtheria branch so expensive? The nursing is very heavy, and we pay £2 or £3 a month more for gas for the diphtheria cottage than we do for the general hospital. At present we are not paying anything for medical attendance in the diphtheria hospital. It is done by the honorary medical officer, Dr. Gibbs.
1955. Do you consider the building suitable and satisfactory? No; most unsuitable and unsatisfactory.
1956. Have the Committee discussed any proposal with regard to a new one? We have had no proposal. We tried to get some land from the Government some years ago, and they almost promised to give a piece of land behind the old Paddington Rifle Range. It was virtually granted to us, but some other institution put in a claim, and neither of us got it.
1957. Did the Paddington people object? Every municipality will object.
1958. *Mr. Barling.*] I think the hospital is pretty nearly always full? Yes, fairly full. It varies a great deal. It is in such a condition, having been so long used as a hospital, without being properly constructed for the purpose, that we are getting a great deal more infectious cases than we used to get, and immediately we find an infectious case in a ward we have to shut up that ward and disinfect it. That limits our space and makes everything more difficult to manage.
1959. I suppose you are aware that great complaints have been made as to the want of room in the Prince Alfred and Sydney Hospitals, and in both the hospitals there are cots for children;—could you make provision, without any large expense, for the accommodation of those patients? We could not make any provision in the present premises for any more. It would not be possible.
1960. You are up to the extreme limit now? Yes.
1961. You could not help the Sydney Hospital by taking in children from there? No; we often have to send cases away.
1962. That shows the necessity for a new hospital? Distinctly.
1963. Have any steps been taken to obtain funds for a new hospital? No; the times have been rather against us. If any philanthropic person would start the thing, I believe we should have no difficulty in getting funds. The difficulty is to get somebody to put down a sufficiently large sum to give us a fair start. One of our Directors was so shocked when he saw how badly we are situated that he talked about one gentleman planking down £25,000, but we have not heard anything more of it. There is a scheme which we have thought of to purchase some land adjoining our diphtheria hospital on which to build a general

- general hospital on proper lines. It is a very healthy place, and the hospital being there already the Glebe people could not object to it so much as another municipality might if we were going to shift. I believe that the people would not mind the hospital if they could get the diphtheria ward shunted. C. Griffiths.  
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1964. I think, with regard to diphtheria, that you take in any patient without asking whether the parents have means to pay? We take all cases of diphtheria without question. They are cases of life and death. We have had to send children away, and they have died in the arms of the women who brought them.
1965. Placing the diphtheria patients there removes infection from other districts? I do not hold that there is much infection; I think there is a good deal of unnecessary talk about that. The unfortunate part about it is that diphtheria patients very often come in with measles or scarlet fever then the difficulty is to know what to do with them. You cannot take it into the diphtheria ward; you cannot send it out to Little Bay, because the child would die on the road. If the Government would relieve us of the diphtheria cases, and assist us to build a main hospital on the scheme that we suggest on the present site of the diphtheria ward by buying the land alongside, I believe we could raise subscriptions to do the thing well with an endowment. In Melbourne the Children's Hospital has an endowment of £40,000. There is no reason why the Sydney people should not assist; but, seeing the position we are in, they say, "What is the use? You will be no better off if we do assist you now."
1966. *Mr. Walker.*] What is the extent of that piece of land next to the diphtheria ward? It belongs to Mr. Marks. It has a terrace on it. There is a bit of land between the terrace of houses and the diphtheria ward. Mr Kent, who was secretary for about thirteen years, has planned a hospital in his own mind, and you could not get anybody better, because his scheme was the first in the competition with regard to the Children's Hospital at Melbourne when they called for tenders. He thinks we could get another 100 feet.
1967. That would not include the terrace? No. If we had that land we could work on proper plans, and build a proper hospital.
1968. And that would take all the patients that you have in the general hospital and in the diphtheria hospital? I think we could build a hospital to hold 150 patients.
1969. What would become of your diphtheria ward? We depend upon the Government to take it over. We could not possibly continue the diphtheria ward on that ground.
1970. Not with the Children's Hospital? We should have to sell that to gain funds. We calculate that we ought to get £5,000 or £6,000 for that, which would form the nucleus of a fund for a new hospital.
1971. You think of putting the diphtheria patients somewhere else? We cannot go on taking diphtheria patients in that building. It is getting so full of bacteria that it is becoming unsafe for diphtheria patients.
1972. You advocate the removal of it, then? Yes; entirely.
1973. You want a separate and distinct institution altogether? Yes.
1974. Your only idea is to dispose of the present site and obtain that piece of land as a new site for the Children's Hospital? Yes; that is what we have come to. I can assure you that it is very much wanted. If a new hospital were built we could relieve the Sydney and the Prince Alfred Hospitals of their cases.
1975. You could relieve them of the children in those hospitals? Yes; we calculate that we can take all the children, and we reckon that to do that we ought to have 150 beds.
1976. *President.*] About the management;—have you a committee? Yes; there is a Board of Management of about twenty-four members.
1977. Have you any life members? Only two. We made a rule the other day that only those who had assisted materially in the management of the hospital should be made life members.
1978. Are they elected? Yes, annually; a certain number retiring—that is, in regard to the Board of Management.
1979. How many go out year? I think six.
1980. How often are meetings held? We have an annual meeting of subscribers; we have a Board meeting every second Monday in the month; and the Board elect a House Committee who meet every Tuesday at the hospital. The House Committee consists of six members and the officers.
1981. The House Committee meet once a week? Yes.
1982. Are there ladies on the committee? The House Committee virtually consists of ladies, the only gentleman who attends being the secretary.
1983. Do they take an active interest in the management? Yes; a very active interest. I do not think that there is another institution in Sydney the committee of which take such an interest in it.
1984. Their work is satisfactory, then? Yes; very satisfactory.
1985. Has the medical staff seats on the Board? Yes; they are all honorary members of the Board, and they are virtually honorary members of the House Committee too. They come whenever they are asked, and give assistance to the Committee.
1986. The Board appears to be a large one;—do you think it is too large? No; I think that we get people to take more interest in the institution by having a fairly large Board.
1987. Have you any Government nominees on the Board? No.
1988. What are the arrangements with regard to the resident medical officer? We have not a resident medical officer at all, but we used to get fourth and fifth year men, who had to live in lodgings close to the hospital, and who could be reached at a moment's notice. At present we have only honorary medical attendants at the diphtheria ward; but we have a high-class man who is in the general hospital always, although he does not reside there, and we give him £200 a year. We find that it works better than having two. We had two lady doctors one year.
1989. What nursing staff have you? In the general hospital there are the matron, 3 sisters, 2 staff nurses, 5 nurses, 14 probationers—altogether 25.
1990. What is the matron's salary? £90 a year she commenced with, and it is increased by £10 after she has been there two or three years. One of our matrons remained a long time with us, and her salary went up to £120.
1991. What do the sisters get? There are 3 sisters at £60 per year each, 2 staff nurses at £35 a year, 5 nurses at £25 a year, and 14 probationers at £20 a year each.
1992. Do you have lectures for the nurses? Yes; the medical staff give lectures in the hospital, and the nurses have to pass examinations.
1993. And you give certificates? Yes.
1994. Are there many applications for the position of nurses? We have no difficulty about getting nurses. There seems to be always a number on the list ready to be taken on.

- C. Griffiths. 1995. Then these nurses will be trained as they are in the other hospitals? Yes; the honorary medical staff look after that.
- 1 June, 1899. 1996. How are patients admitted to the hospital? If any child is brought there, and the surgeon says that it is a proper case for admission, it is admitted at once if there is a bed vacant. The parents are asked if they can afford to pay anything. The relations of the patient visit the hospital on Sundays, and one of the assistants collects whatever they like to give.
1997. What is the number of beds? We can make up fifty-four. We have generally about fifty.
1998. Have you any wards for the separation of boys and girls? We have one small observation ward outside, but if a case of infectious disease occurs in any of the wards, that ward has to be immediately cleared and disinfected, and we lose the use of it.
1999. Is there any special means of separating the boys and girls? Yes; we endeavour, as far as possible, to keep the girls' and boys' wards entirely separate.
2000. Have you returns of the number of patients in 1896, 1897, and 1898? I have not that with me.
2001. What is the average number of beds occupied in a year? It would be very hard to say. Much depends upon the difficulty we have with regard to closing wards in consequence of infectious disease having broken out. We ought to have about forty-five beds always occupied in the general ward.
2002. What is the number of patients in the diphtheria cottage? We have only twelve beds there.
2003. Have you had to turn patients away? Yes, a great many patients are turned away. If the doctors would telephone before they send patients we could tell them whether there is a bed vacant or not; but they do not take the trouble. We have less room available of late since the anti-toxin cure for diphtheria came into use; we find that after the use of anti-toxin the children remain much longer in the hospital because it is some days before the doctors are sure that it may not have bad effects on the child. The Walker Convalescent Hospital is very good to us; I think they have six or eight cots, and we send our convalescent children there.
2004. Have you any private wards? We have none, and we have no Government cases. We have no Government subsidy for any patients.
2005. The subsidy is on the collections? Yes, £ for £.
2006. What sums are received from the patients? They vary from about £300 up to £500. Last year the amount was £408.
2007. Do you receive any payment in any instance in excess of the cost? No, never. The only case of that sort would be one in which a person has got into better circumstances, and is so pleased, that he has made a donation.
2008. You said that the total payments amount to £300 or £400;—what are the amounts contributed in individual cases? The highest I think that we ever got was 15s. or £1 a week, and they go down to 2s. and 1s.
2009. You said there was a great deal of pressure on your space in both hospitals? Yes.
2010. And that more accommodation is necessary? Yes; absolutely necessary.
2011. Have you any out-patients? Yes. Last year there were 4,000 out-patients, with an aggregate attendance of something like 10,000.
2012. Have you any registration fee for that? No; we have not. Lately we found that dispensing was very badly managed outside. We used to give orders on the chemists, and the chemists used to charge 1s. for the medicine. We are now trying a new system. We are registering the patients, and asking them to pay 1s. when they first receive their medicine. We have a paid dispenser at the hospital.
2013. So there is a registration fee? We do not enforce it; if they will pay they do pay.
2014. Do you get any donations apart from that? This system I am speaking of is only being newly tried. Last month the out-patients paid £6 10s., but that is not anything like what a shilling each would come to.
2015. It appears that in 1898 the number of patients was 4,082, with 10,885 attendances? Yes.
2016. There is an increase over 1897 of 1,230 in the number of cases, and 3,716 in the attendances, so it is largely growing? Yes.
2017. Can you account for the increase? People are taking more advantage of the hospital than they did formerly, and I think they are poorer than they used to be.
2018. What is the cost of this Department? It is not kept separate. The only cost is the attendance of the sisters and a nurse besides the dispenser and the medicine. There are two honorary medical officers attached to that department who attend about four times a week.
2019. What inquiry is made as regards the means of the parents or guardians of the children? They merely ask what the parents are earning.
2020. Do you take their statement? Yes; whenever we can get it; we do not force them to give it. There is a form which the medical officer attending is supposed to get them to sign; but that is not enforced.
2021. Is the inquiry followed up at all afterwards? No.
2022. Does that apply to out-patients too? Yes. The out-patients belong to very poor people as a rule.
2023. Do you think there is much abuse of the hospital? Not of the general hospital; there is of the out-patients' department. I have no doubt about that.
2024. Which, I suppose, is difficult to cope with? The Directors are trying to find some means of meeting it. If we find, in any case, that people are bringing their children there who can afford medical fees, we decline to treat them.
2025. *Mr. Walker.*] How many nurses have you at the hospital? Nineteen nurses, two staff nurses, and three sisters.
2026. What are their hours? I could not tell you.
2027. Do you take any probationers in? Yes; we have fourteen probationers there now. We give them £20 a year. There are no unpaid nurses in our hospital.

William Chisholm, M.D., sworn and examined :—

2028. *President.*] You are honorary surgeon at the Sydney Hospital? Yes.
2029. Last year you were President of the New South Wales Branch of the British Medical Association? Yes.
2030. Will you give us your views as to the system of receiving pay for patients in the hospital? I am not in favour of having a system of payment at all by patients.
2031. On what ground? On the ground that hospitals are charitable institutions and the honorary staff give their services to the sick poor.
2032. You think they should not give their services to those who are able to pay? Certainly not.
2033. What provision would you make for persons who are able to pay something but could not pay the current rates which medical men and nurses charge outside; take the case of clerks with £150 or £200 a year having illness in their families? If the man has shown his willingness to provide for ordinary ailments, the patient should be taken in and given hospital treatment free.
2034. Suppose that he prefers, for a certain feeling, to pay something? I do not know that there would be any objection to the patient, when he leaves the hospital, sending a cheque according to his means.
2035. He can do it as a donation? Yes.
2036. Do you approve of payment for the registration of out-patients? No, it is practically the same thing; you are exploiting poor persons, but you give it a different name.
2037. A further objection might be that you are taking a shilling from a man who is able to pay, and giving him an excuse for not paying more? You make him feel that he is paying for what he is getting, and that is one objection to it.
2038. Do you think the hospital is very much abused by people who are in a position to pay? I think it is most shamefully abused, by both in-patients and out-patients.
2039. Do you think sufficient trouble is taken to minimise that abuse? It seems to me that the authorities at the hospital that I am connected with do not take any trouble at all.
2040. Beyond making certain inquiries? I refer to certain departments—I refer to the casualty department of the Sydney Hospital. Anyone who likes can drive up there in a cab and go in and be treated.
2041. Have you any suggestion as to how to deal with that? I think the hospital authorities might take more pains to point out to people who come to the hospital that it is really only a charitable institution, and people should be asked why they do not make some provision for meeting their ordinary medical needs. They should be told that it is their duty to do so. Nine-tenths of the people who come to that casualty department could well be treated at home, or by any ordinary medical man. There are people who come from such places as Waterloo with a cut finger.
2042. Do you think the inquiries that are made at the hospital should be followed up later on at the homes of the patients? I think it is absolutely necessary. Of course a man would have to be ubiquitous almost, but it is necessary, if you want to prevent abuse, to have an inquiry officer to visit the homes of the patients.
2043. If you had a central office, could that inquiry officer make inquiries on behalf of all the hospitals? At first it might be difficult, but when it began to be known that endeavours were being made to prevent abuse there would be less need for his services.
2044. Do you think the hospital accommodation in Sydney is sufficient for existing requirements? Not the way they are conducting the hospitals. They will want it three times as large the way they are going on now; if they are going to call everybody into the hospitals.
2045. I understand that if the hospitals are confined to the proper class, possibly the accommodation may be sufficient? Yes. I think the present hospital accommodation should be sufficient for the proper class. I might qualify that by saying that perhaps some provision might be made for hopeless cases of consumption. We really do want some provision for them, and a lot of the patients who are now in the medical wards of the hospital might be drafted off. I think that is the only thing that is wanted.
2046. Do you know anything about private hospitals? Yes; I know most of them.
2047. How many do you think there are? I think there are about five good hospitals; certainly there are three. As far as the buildings are concerned, I think these three are very suitable. There are two or three others admirably managed, but I do not know that the buildings are quite suitable.
2048. Are there any others besides those? I believe that in most of the suburbs there are private hospitals; a surgeon may have a house that he uses as a private hospital.
2049. Do you think they are well conducted? As far as I know they are very well conducted.
2050. Have you heard of any abuses in connection with any of them? No; the complaint against them is that they charge too much.
2051. What is the usual charge? They will take patients at three guineas, but the charges run up to eight or nine guineas a week; it all depends on the nursing.
2052. Very few can pay those high rates? They are very high; five or six guineas a week after operations, I think, is the average.
2053. Do you think the private hospitals ought to be registered and inspected? I see no objection to that; I think it would be a very good thing.
2054. At present there is no check upon them at all? No.
2055. Are these hospitals liable to great abuse without inspection? Yes, I suppose so. One sees homes for ladies advertised in the papers; those are simply the advertisements of abortionists.
2056. It is reported that some of them are used for that purpose? I do not think that medical men send their cases there, but some are advertised as lying-in homes, and I have no doubt that they are used for that purpose.
2057. *Mr. Walker.*] You say there is some abuse of the out-door and in-door relief systems? Yes.
2058. Can you suggest any remedy? I think that one might limit hospital attendance to cases of serious illness. A large number of people who come to the out-patients' department and the casualty department come with such trivial ailments.
2059. That would rest with the officers of the institution? There ought to be someone told off to inspect these cases. There is a notice put up, I believe, in the out-patients' department, that it is intended only for the relief of indigent sick persons, but they do not take any notice of that.
2060. Do you not think it could be checked if there was a suburban dispensary established, which could be run more cheaply than even the cost of those institutions? I think there would still be the same amount

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amount of relief given to people who do not deserve it. We ought to endeavour to point out the need for people to provide for their minor ailments. A large number will come to the out-patients' department suffering from coughs, colds, and that sort of thing. Surely by paying a few shillings a year a husband could make provision for the treatment of such ailments in his family; but people will not do that when they can come to the hospital and get things for nothing.

2061. The difficulty is in checking it? Yes; that is the difficulty.

2062. Do you think an inquiry officer might check it? Yes, to some extent; I do not see why the hospital authorities should not let it be known that people are expected to make provision for their own ordinary medical needs. People come to the hospital with bronchitis and other ailments which would be much better treated at home by their own doctor.

2063. Do you get imposed upon by club patients? Well, the greatest abuse in connection with club patients is owing to the medical men. The club doctors are to blame for some of the worst cases of hospital abuse, more especially in the surgical line. A patient gets ill and requires an operation. The doctor may not be in the way of doing operations, but he does not like to say, "I do not feel equal to doing it; you may get someone else;" but he says, "your house is not suitable for such an operation; you ought to go to the hospital;" and thus people are sent to the hospital who are well able to pay. I myself operated on a man a few years ago who lived in a house of his own off Glenmore Road.

2064. Do you often get patients a second time—say a man breaks his finger, then afterwards comes with a cut over his eye? We get that sometimes.

2065. You are satisfied in your own mind that the thing is abused? It is grossly abused. I might quote the case of a professional man who received an injury on the railway. He had his arm out of a carriage window when it was struck by an open door on a passing train. He was a solicitor. He was taken to the Sydney Hospital and I was called in to operate on him. He was in the hospital some weeks, and his elbow joint was opened. He made an excellent recovery, and when he was well enough to leave the hospital I said, "you are quite able to go to your own doctor now;" but he said "I would rather you would see me," and he came to my house afterwards. That man tried to get very heavy damages from the Government, and I heard that he was paid a sum of £175 as compensation. He was taken into an institution which is half maintained by the Government, turned round and got damages from the Government, and he gave £5 to the hospital. That sort of thing should not be allowed.

2066. *Dr. Manning.*] You think the number of out-patients is very excessive? I did when compiling figures for my address to the Association, but thinking I might be asked for definite information, I looked up the figures in the *British Medical Journal* last night, and I was rather surprised to find a statement showing that there are places that are worse than we are in this respect. Under date July 16, 1898, it is stated that the proportion of out-patients to population for Edinburgh was 371 per thousand; the in-patients and out-patients altogether, for the four hospitals here, were less than one-eighth of the population of Sydney. I think it is 55,000 people for Sydney and suburbs. In Edinburgh the out-patients numbered 371 per thousand, as I have said. That strikes me as being a very large proportion, over one-third of the population. In Glasgow the proportion is 139 per thousand; at Aberdeen 115 per thousand.

2067. The population of Glasgow and Edinburgh are not nearly as well off as they are here? No. Too large a proportion go to the hospital.

2068. Do you approve of this Provident Medical Association that has been started? Yes; I am one of the consulting officers. I believe it is getting on well, and is properly conducted. I advised my own coachman to join it.

2069. Do you think it is on proper lines, and will do something towards diminishing the number of patients at the hospital? Yes.

2070. Both out and in-patients? I do not know so much about the in-patients. You see we must have a safe place to send them to.

2071. You think it will diminish the number of out-patients? Yes.

2072. And it will encourage a spirit of providence? Yes. There is an article on the subject in the last issue of the *Australasian Medical Gazette*, which I will leave with the Commission. I think the association is on proper lines. We want to encourage people to make some sort of provision for their medical needs. I think that a man getting 35s. or £2 a week should belong to a club, and pay 25s. or 30s. a year, so as to obtain treatment for minor ailments. If he is unfortunate enough to break his leg, take him into the hospital, and let us give him all that we can give him without extorting any money from him.

THURSDAY, 15 JUNE, 1899.

[The Commission sat at the offices of the Public Service Board at 2:30 o'clock p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).	
F. NORTON MANNING, Esq., M.D.	J. BARLING, Esq., J.P.
J. POWELL, Esq., J.P.	CRITCHETT WALKER, Esq., C.M.G.

Cecil Purser, M.B. et Ch.M., Syd., sworn and examined:—

C. Purser, M.B. et Ch.M., Syd.  
15 June, 1899.

2073. *President.*] You are a duly-qualified medical practitioner? Yes.

2074. Have you any official position in connection with any hospital now? Yes. I am Medical Hon. Secretary of the Carrington Hospital for Convalescents, and Queen Victoria Home for Consumptives at Thirlmere.

2075. *Dr. Manning.*] You were for some years Superintendent of the Prince Alfred Hospital? Yes. In 1891, 1892, and 1893. I am Honorary Physician there now.

2076. Can you give us the date when the Carrington Hospital was established? It was in 1890.

2077. Have you the cost of the buildings there? The cost was £19,101 10s. 7d. for the buildings proper; then there are supplementary buildings. The Masonic cottage cost £1,472 7s. 6d.

2078. That was put up entirely by the Masonic body? Yes.

2079. How were the funds provided for building the main hospital? The land was given by the late Mr. Paling with £10,000 in hard cash, and the rest was raised by subscription.

2080. Was there any Government contribution towards it? At a public meeting, held in Sydney in 1883, I think, a further sum of £5,000 was subscribed in addition to the late Mr. Paling's gift, and this £5,000 was subsidised to the extent of another £5,000 by the Government.

2081. What is the number of beds in that hospital? One hundred altogether; the main building contains ninety-four and the Masonic cottage six.



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2082. What is the system under which patients are admitted? No recommendation is needed from any one for admission. As a matter of fact, it is really a relieving hospital for the main city hospitals—the Sydney Hospital, the Prince Alfred Hospital, and St. Vincent's Hospital. The convalescent cases from there constitute the majority of the admissions. The Government Medical Officer recommends any patients that he thinks suitable amongst those whom he sees at the depôt. Then as regards what are termed outside applicants, any medical practitioner who has a patient who will be benefited by a change of air sends that patient to one of our examining medical officers, and the patient is admitted without question.

2083. Who are the examining medical officers? The Medical Superintendent of the Prince Alfred Hospital, the Medical Superintendent of the Sydney Hospital, the Resident Medical Officer of St. Vincent's Hospital, Dr. Clubbe for the Children's Hospital, the Government Medical Officer, Dr. Taylor, and Dr. Gwynne Hughes, for the Masonic patients, and sometimes it falls to my lot to send patients in.

2084. The patients furnished with certificates of fitness from those gentlemen you have named, are admitted to beds in the hospital? Yes; we send them by railway ambulance from Redfern to Camden, and thence to the hospital. That is done by the hospital, free of cost. We have to pay the Railway Commissioners for railway carriage.

2085. What is the cost of the ambulance service? Including the nurse and those in charge of the patient, roughly, about £400 a year.

2086. That includes the railway fares and the wagonettes for the conveyance of patients from Camden station to the hospital? Yes.

2087. I see that your beds have not been very fully occupied during the last few years; can you give a reason for that? At certain periods of the year the beds are over occupied, although not at the present time, but, for this season of the year, they are fairly full. We have a daily average in the summer months of from seventy-five to seventy-eight, which is a workable number. Sometimes there are more on the male side, sometimes more on the female side. We have as many as from ninety-four to ninety-six sometimes, in the summer months. There are ninety-four beds in the hospital proper, and six beds in the Masonic cottage—which are occupied by Masons only, recommended by that fraternity. The daily average of seventy-eight out of ninety-four is a fair workable number to be occupied.

2088. I see that the daily average for last year was seventy-six, and the average for the previous year was seventy-eight? Yes.

2089. Mention is made in the report of an emergency branch at Carrington, of what does that consist? We have sick wards, one on the male side and one on the female side, and, up to last month, we always had to take in any police cases that might be brought to us in the Camden district. That was originally brought about by the Board of Health. We asked to be relieved of that, but they said that, as we were subsidised, we should have to take in these cases. Some patients, after being admitted into the ordinary wards, have developed sickness; these are then transferred to the sick or emergency wards.

2090. They were local cases of sickness? Yes; accidents and emergency cases in the district.

2091. How are they provided for now? A cottage hospital has been opened, and we have been led to believe that, for the future, we shall not be troubled with such cases.

2092. The reception of these emergency cases was to meet local needs, and it was at the request of the Government? I do not know about the request of the Government, the Government were shown how it put extra work on our staff. They were often severe accident cases, and they required extra nursing, and it was a heavy tax on our limited nursing staff. That is why the Government were approached and asked to relieve us of these cases.

2093. What proportion do patients coming from the Metropolitan hospitals bear to the patients who are brought from outside sources? The majority of the patients come from the hospitals. In 1896 the number of outside patients amounted to ninety-six; that was out of a total of 1,055; there may have been a few more.

2094. So the Carrington Hospital relieved the metropolitan hospitals to the extent of seventy beds? Yes, practically.

2095. And if it were not for the Carrington Hospital there would be a necessity for seventy more beds at the metropolitan hospitals? Yes; absolutely so. I can speak from my experience at the Prince Alfred Hospital; we were able to send patients out there before they were fit to go home. A patient who had not a proper home to go to, and who was well enough to go to Camden, was sent there. Had it not been for the hospital at Camden we should have had to keep the patients at the Prince Alfred Hospital some days longer, because they were unfit to work and needed some little nursing.

2096. Do you know anything of the Walker Convalescent Hospital? Very little. I have occasionally recommended patients from the Prince Alfred Hospital.

2097. The Carrington Hospital is managed by a general committee;—how is it elected? A certain number are elected by subscribers; a certain number are nominated by the Paling family, and a certain number by the Governor.

2098. How often does it meet? The committee meet once a month. The general committee consists of twelve nominated or elected members, three trustees, members *ex officio*. One-third are nominated by His Excellency the Governor, one-third by the representatives of the donors of the estate, and one-third by the majority of those legally present at the annual meeting.

2099. Is the hospital managed directly by a general committee, or is there a house committee? There is the finance committee (termed the House Committee in the By-laws), elected each year, and they simply meet on the same day as the general committee, and go through the finances beforehand; then the general committee meet afterwards.

2100. What is the function of the local committee and the ladies' committee? Practically nil. They visit the hospital occasionally and report on anything that needs attention; but they have only met once or twice since the committee was formed.

2101. They are only a visiting committee? That is all.

2102. They are appointed because of the difficulty, I suppose, of members of the general committee going such a distance? That was originally the idea, but now the administrative honorary secretary visits the hospital not less than once a fortnight.

2103. What does your medical staff consist of? Of the two doctors in Camden.

2104. Are they paid for their services? They will be paid from the 1st of May this year. Before that they were honorary officers, but at the beginning of this year they sent in an application to the committee,

and

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and said that they could not continue to give their services free, mentioning several obstacles. They were interviewed by a sub-committee from the general committee, who tried to get them to reconsider their decision; and after two or three interviews it was decided to pay them.

2105. What amount are they paid? 25 guineas each per annum; as a matter of fact, they asked for £50 a year, to be paid to each doctor.

2106. What nursing staff have you? There are a matron, two sisters, and three nurses.

2107. And what are their salaries? The salary of the matron is £175 per annum; of the head sister, £45 per annum; junior sister, £40 a year. The three nurses receive £20 per annum each.

2108. Are they all certified nursing sisters? No. The matron, of course, is a certificated nurse, and the two sisters are certificated nurses, but the other three nurses are probationers. They gradually work their way up. The junior nurse is absolutely a probationer. Our senior nurse has been with us about three years, the second a year, and the probationer was appointed three weeks ago.

2109. Is there any training for these nurses? The visiting doctors occasionally give lectures, and the matron also.

2110. But it is not possible there to train probationers into nurses? No; we do not give certificates, but it is a stepping-stone to the Sydney Hospitals; four or five of our nurses have been admitted to the Prince Alfred Hospital.

2111. The probationers' service has been only preliminary training for their service in the other hospitals? Yes.

2112. What other staff have you? There are the matron's servant, one cook and one laundress, an assistant laundress, two housemaids, and a kitchen-maid; outside there are the gardener, the porter, and the assistant porter.

2113. That seems rather a large general staff? We have our own vegetable garden, and we have a gardener for that; and the porter and the assistant porter help the gardener. We have to pump our own water up from the lake; a man has to manage the gas-engine, and there is also the wood-cutting. We find that we could not carry on with less. We have also a large poultry yard and a piggery to be attended to.

2114. What is generally the duration of the stay of patients in the hospital? I think the average time last year was about twenty-six days.

2115. They are sent there for a month? Yes.

2116. When they have been there a month I suppose their time is renewed if it is found necessary? Yes. The visiting medical officers have the privilege of recommending them for a further stay of twenty-eight days; but, as a matter of fact, we have had cases there that stayed over 100 days—nearly 200 days. They have sometimes developed sickness there, and sometimes they have been sent there rather early, and their illness has recurred. The local cases were nearly always overtime patients. We have had some accident cases in for long periods.

2117. What sum is paid to you by the Government for cases that are sent in by the Government Medical Officer? Two shillings a day.

2118. What was the amount received in 1897 and in 1898 from this source? We received from the Government for patients in 1897, £941 10s. 2d.; in 1898, £1,119 5s. 10d. Then, I might mention, with regard to this discrepancy, that sometimes we do not get all the money due in the same year; from 1897 there might be a fairly large sum standing over till 1898.

2119. What sums did you receive in those two years from patients? In 1897, £199 1s. 8d.; in 1898, £90 18s. 6d.

2120. And of what sums were these amounts made up? Of payments from 2s. 6d. to 10s., 12s. 6d. and 15s. per week. I think that last year there was one who paid over 25s., and one paid £1.

2121. Is there any justification for receiving more than the maintenance rate from any patient? It is stipulated in the by-laws that if a patient comes from a Government institution we are not to receive more than the cost per bed per annum, otherwise it is purely voluntary on the part of the patients to pay. A patient is asked if he can contribute anything, and if he can give 25s. a week it is taken. There were only two cases in which more than £1 was paid last year.

2122. Then, in addition to the sum received for the maintenance of Government patients, do you get a Government subsidy? Yes, £ per £ on the subscriptions and donations.

2123. Will you give the total number of patients treated in 1897 and 1898? The total number of cases admitted in 1897 was 1,092; in 1898, 1,023. Of course there are a number standing over from the previous year who would be included.

2124. Are any out-patients treated at that hospital? No.

2125. What was the cost per bed for 1897 and 1898? For 1897, £35 3s. 9d.; 1898, £35 11s. 4d.

2126. What sources of income are there besides those you have already stated, namely, the Government subsidy, payment for Government patients, the £ per £ for donations and subscriptions, and the payments made by patients? There is an endowment fund from which we receive interest, and the rent received from part of the estate. As a matter of fact, during the last few years the rent has been very little on account of the drought. We have had to remit most of it.

2127. What does the endowment fund consist of? The amount is £774 5s.

2128. Do you know how that has been made up? No; I cannot tell you exactly. It comprises sums that have been given specifically for that object by different people.

2129. I see that at the end of last year you had a balance on the working fund of £131, so we may take it that the hospital is practically free from debt? Yes. One month this year we were not free from debt, but there was money coming in in the next month which just about cleared us.

2130. Do you approve of the Provident Medical Association, of which Dr. O'Hara is secretary? I do.

2131. You are one of the medical officers of it, I believe? Yes; I am one of the active medical officers.

2132. Do you think that the association is working satisfactorily? It is working very satisfactorily.

2133. You approve of the principle on which it is established? Yes. No one is admitted into the association who is receiving over a certain salary. That is a most important stipulation.

2134. Do you think the association is likely to be of use in preventing imposition on the hospitals—preventing people from going into the hospitals unnecessarily? That was one of the objects spoken of at the inception of the movement, but whether it will do that largely I am not prepared to say. I do not know that it will, but it was hoped that it would.

2135. I see that the association takes in people who are in bad health under special circumstances and on payment of special fees? Yes; for instance, if a person came to me and asked to be examined in order

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order to become a member of the association, and I thought fit to take him, that person would be admitted. It is principally where the head of a family is perhaps unable to do much work, and it is done for the sake of the wife and family.

2136. All persons applying for admission are examined medically before they become members? Yes.

2137. But in special cases, though the person may be sick, he is taken? Yes.

2138. In this respect it differs from the ordinary clubs? Yes.

2139. An ordinary club has attached to it a medical department and does not take people unless they are in good health? No.

2140. Therefore, a good many people who are in indifferent health are precluded from taking advantage of the ordinary clubs? Yes.

2141. I suppose there is a large class of the population who cannot join either the provident medical association or an ordinary club, because of the condition of their health? Yes.

2142. And who must be provided for by charitable means in some form? Yes.

2143. Has it occurred to you what would be the best way of providing for those people who are not sent to the hospital;—do you think it is necessary to establish in Sydney a dispensary on the lines of those in the Old Country? I think it would be a very good thing if it could be done apart from the general hospitals altogether. There are patients situated very far from the general hospitals, and it means a good deal in cost to them to travel in by rail and tram.

2144. But are there not many who would prefer to be treated in their own homes if there was medical provision for doing so? Yes.

2145. And who would not go into a hospital if they could be treated in their own homes? Yes; I am sure there are many who would rather be treated in their own homes if possible.

2146. You think that could be done by the establishment of a dispensary, from which medical officers could be sent out to attend patients in their own homes? In certain districts, yes.

2147. We should like to know your views as to the pay system in hospitals; you have had a great deal to do with it;—do you think it is advisable that payment should be received from in-patients? I do not think there ought to be any set payments per week from the patients.

2148. You would not take any payments at all? No, except in the shape of some little donation—not set payments per week. My experience has caused me to make up my mind in that direction. As a matter of fact, I think it is a pernicious system.

2149. You speak with considerable knowledge, because you were Medical Superintendent at Prince Alfred Hospital for three years? Yes; it was there that I formed the opinion which I have expressed, and it was before I had been at the hospital very long.

2150. Will you tell us your objections to the system? Over and over again the system was abused; because people would get into the hospital under false pretences sometimes—people who had no right to receive charitable aid. I look upon the hospitals as being for the poor and indigent. People get into the hospital who have no right there—people who could pay a fair fee outside; that is one reason why I object to payment. There are other reasons, with regard to subscriptions being given by certain firms or bodies of men. Where each would subscribe only a small sum, a man getting, say, £300 a year thought he had as much right to treatment as a poor man getting 10s. a week, and these people used to get into the hospital. I have known cases in which persons who are not poor and indigent, but because they belonged to a body of men who subscribed to the hospital, thought they were entitled to treatment. I have known them to be treated by the Medical Superintendent by order of the committee.

2151. What are the objections to taking payment of 1s. or 10s. from people who are not able to afford any more? People of that class should be provided for in some other hospital. I object to the system that goes on of paying £1 and £2 a week, or from 25s. to 35s.

2152. You do not think it is right that the hospital should make any profit at all out of patients? No.

2153. You do not think that private wards are necessary in the hospital? No. I do not see why a person who can pay 35s. a week should occupy a bed to the exclusion of persons who cannot pay at all. The hospitals are subsidised by the Government for the poor and indigent, as a matter of fact.

2154. Is it really a fact that patients who are able to pay are more readily received at the hospitals than patients who are not able to pay? I think it is a fact. Although the others are not refused, still they are always glad to get in paying patients as a matter of profit to the hospital. I am sure the committee are more pleased the more paying patients they get each month than they are at having so many non-paying patients.

2155. Do you think the hospitals compete unfairly with the medical practitioners in this way? In certain cases they do; but I must say that I know that medical practitioners have been to blame themselves. Honorary medical men have recommended people to go into the hospital when they should not have done so.

2156. I am speaking of the ordinary outside practitioner not attached to hospitals? Yes; what you speak of has cropped up. Country patients often come to Sydney, who could be treated by the country practitioners quite as well, and who are well able to pay for treatment too.

2157. Do you approve of payment for the registration of out-patients? That is a subject which I have not gone into very much. I do not think it is in vogue at the Prince Alfred Hospital. The patients were asked if they could contribute, and they might give 1s. or 6d.; but to compel everyone to pay would involve hardship on some, because there are many cases in which they are not able to pay even a copper.

2158. We find that the number of out-patients is increasing very rapidly at all the hospitals;—can you give us any idea as to how that could be checked? I cannot. I was assistant physician in Prince Alfred Hospital for three years, and each year the number of out-patients increased to such an extent that it was a very great tax upon the visiting physicians more particularly.

2159. Do you think it could be checked by making all out-patients bring recommendations from medical practitioners? I think that would do some good. Laymen have told me that they could not gauge whether a case was a suitable case for admission to the hospital or not, yet the patient being ill they felt compelled to sign an order, though not convinced that they ought to do so. That crops up with people in the vicinity of Prince Alfred Hospital. Some of the heads of the colleges have said, "How were they to know whether the person was a suitable person for hospital treatment?" yet they felt compelled to fill up the orders.

2160. Prince Alfred Hospital has orders for the admission of out-patients, but none for the admission of in-patients? That is so.

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2161. We find that a great many of these out-patients go to special departments;—do you not think it would be advisable if patients for special departments had recommendations from medical practitioners? Yes; in every case. I do not see why it could not be done in ordinary surgical and medical cases as well as in eye, ear, throat, and skin cases.
2162. You think it would lessen the number of out-patients? I think it would.
2163. So that you would get only cases that were more fit for hospital treatment? Yes.
2164. A very large number that come now are trivial cases? Yes; and there are the chronic cases.
2165. And the examination of all these cases takes up a considerable time? Yes.
2166. How much time do you spend each week in the out-patients department as assistant physician? I used to attend at 2 o'clock, and seldom got away before 5.30 or 6 p.m. The number of patients I would see would be fifty; I have seen as many as 136 in one afternoon.
2167. It would be almost impossible to do justice to such a number as that? Yes.
2168. So it would really be better to restrict the number, by not seeing more than a certain number? Yes, far better.
2169. Do you think everything possible is done by the hospital to detect abuses? Yes, as far as I know. In connection with the hospital that I am concerned with, everything possible is done; but still abuses creep in, sometimes with regard to out-door patients. I can mention a case in which a magistrate called and said that if a patient came in the afternoon I was to question him about owning a certain terrace of houses, and I found that he owned a terrace of houses at Newtown. You are supposed to attend to patients if they have an order from a subscriber, a magistrate, or a minister.
2170. You think everything is done by the hospital to prevent abuses; but do you not think it would be advisable to have some officer to visit the addresses given by the patients? If I had any doubt about a case, and I checked them all when they came for admission, I got the collector to call at the person's address. With regard to the country patients, of course you could not get at them at all.
2171. Possibly it might be advisable, in the case of a country patient, to insist on their bringing a medical certificate? Yes. One would be absolutely certain then that they were suitable persons for hospital treatment. I do not think the collector at the Prince Alfred Hospital does inquire into cases now; he is both clerk and collector.
2172. Inquiries have always been made in an intermittent manner? Yes; it was only done where something drew special attention to a case.
2173. *Mr. Barling.*] Have you had much experience of club practice in connection with Friendly Societies? Not very much. I have a few club patients.
2174. We shall be glad if you will give us any information with regard thereto, and especially as to any existing abuses? The system is a bad one, because in any club there is no limit as to membership. Anyone can join a club, whether his salary is £50 or £5,000 a year. In my limited number of club patients, several cases have cropped up in which patients better off than myself were members of clubs.
2175. The statement has been made that persons in receipt of incomes of £1,500 and £2,000 a year have become members of clubs; that they do not take advantage of the clubs in case of death, but they are only too glad to take advantage of them for medical attendance? I know of two cases that I am positive about, in which the patients had incomes of over £1,000 a year, and they took advantage of the medical benefits of a club.
2176. What sums are paid to the medical officers? They receive 16s. or 18s. per annum per case.
2177. A person receiving more than £1,000 a year has taken advantage of the medical benefits of clubs by the payment of 16s. a year? Yes; that is for himself and his wife and children.
2178. Can you tell us what class of the community belong to these clubs? The bulk of my patients are working men, but still there are some who are well-to-do people, who live in their own houses and own several other houses—people who are retired. A case cropped up in the experience of a brother practitioner. A man came to be examined during this year. He was asked his occupation, and his reply was that he was a gentleman; that he had retired.
2179. Can you tell us whether the clerical class of the community, as a rule, belong to clubs? I have not many of them, but I think that a number of them do join clubs. I have about 100 patients, and there are some clerks amongst them.
2180. So you think that, as a whole, that class of the community do not take advantage of these clubs? Yes; but the bulk of my patients are working men. There are very few young men unmarried who belong to the clubs.
2181. So clerks, as a rule, are not provided for in the clubs? Well, they do not belong to the clubs in any large numbers.
2182. What would be the reason? I am not prepared to say.
2183. Is not one reason that the different classes do not associate much with each other? No; they would not have to associate together except at the meetings of a club. In the City and Suburban Medical Provident Association no one knows who is a member of that body.
2184. How is it working? Very well indeed.
2185. Can you tell what class of the community is taking advantage of it? I have recommended many patients; people who are poor, and could not pay my fee, but who were glad to be independent to a certain extent, and could pay the small amount necessary to join the City and Suburban Association. They have not to pay as much as they would have to pay in ordinary clubs. One of the objects of starting the club was that that class of people might come in who were not able to pay the ordinary practitioner's fee. The association is only a new thing.
2186. There is another subject upon which I should like to ask you a question. You said just now that you did not advocate the payment of anything for hospital treatment, and you hinted that there should be another class of hospital in existence which would meet the requirements of certain classes? Yes; that is a hard thing to deal with. The cases which Dr. Manning mentioned of people who could pay 5s. a week, or 12s. 6d., or 15s., or even up to £1, and could not pay any more, should be provided for somehow. The crux is to know how or where. I think that in a general hospital there should be no payment at all. Those hospitals should be for the poor and indigent, and for accident and emergency cases.
2187. Then, for the class of the population referred to, at the present time there is no provision made, or it is very inadequate? Yes.

2188. I suppose, as a matter of fact, that at St. Vincent's Hospital they take in paying patients? Yes; they have private wards.

2189. And they take payment in the general ward? Yes, I believe so; and at the Lewisham Hospital they have some such system. A case went to Lewisham Hospital last week, and the patient was asked to pay 10s. entrance fee and 7s. 6d. a week, but was unable to do so, and afterwards gained admission to Prince Alfred Hospital.

2190. Do you think that a hospital of that kind would meet a decided want in the community? Yes; but there is no limit. I know that abuses creep up over and over again. I know a case in which arrangements were made for an operation—a moderate fee to be paid, which the patient was well able to pay,—but the night before the day for the operation the brother of the patient went to the doctor, and told him that they had altered their minds, and that the patient was going to the Lewisham Hospital, and would pay two guineas a week. They are glad to get them in as paying patients for the sake of the hospital. Whether the patient has £1,000 a year or £100 a year, as long as he pays I believe they do not ask what his means are.

2191. With regard to nurses, do you think from your experience that the nurses in the hospitals are overworked;—what is your opinion? My opinion is that they are not overworked, except on particular occasions. Sometimes, when an extra number of bad cases crop up, they have more work.

2192. You do not think that the ten and a half hours a day during which they are on duty in the Prince Alfred Hospital is too long? No. They are on duty, but they are practically doing no work for part of the time. They are under no physical strain except at certain periods.

2193. *Mr. Powell.*] I suppose the Medical Aid Association is in no sense a charity? None whatever. The point has been mooted whether it would be advisable to introduce some benefits, such as the husband obtaining so much at death, but I do not know whether it will come to anything.

2194. It is not a charity, and is not so regarded by the medical profession? Not that I am aware of.

2195. Dr. Manning has suggested that medical men should give orders to persons who wish to apply at the hospital for out-door relief? Yes.

2196. Would not that be a very great tax on the medical men? I do not think it would, divided amongst the doctors over the big area that supplies the out-patients to the hospital.

2197. It seems to me that it would be needful to make examinations into the cases? Yes.

2198. But you think it would not be objected to by the medical men? I do not think it should be.

2199. *Mr. Barling.*] There is a little pamphlet here, entitled "The Sweating of the Medical Profession by the Friendly Societies of Australasia," and amongst the statements it contains is this:

It must be admitted that the uncertainty of health, and the certainty of having to call in the doctor sooner or later, combined with the comparatively high charges for medical attendance, has induced thousands to join these friendly societies; but medical men are largely to blame for this state by adhering too conservatively to fees which might be fair and equitable twenty years ago, but which sadly require revising in these times of general depression.

Do you think there is anything in that? I do.

2200. And that the medical profession are partly to blame? Yes. I think that medical men might meet the times. If a patient can only pay a fee of 7s. 6d. instead of a fee of 10s. 6d., the medical man ought to be satisfied with it. I know that if a patient comes and tells me his position, I always meet the case if my fees are too high.

2201. *Mr. Powell.*] Is it not a fact that the doctors very often do not get paid at all? Very often, and in the cases of persons who are well able to pay.

2202. *Mr. Walker.*] Those persons belonging to the club get their medicine and attendance free? Yes, for the amount they pay.

2203. Is there anything to prevent these people from going to the hospitals and doing the same thing? If they lie they can do it. If it done I know. Of course, in the out-patients' department it is one of the stipulations that anyone belonging to a club is not supposed to be admitted unless he brings a note from his club doctor stating that he wishes the patient to go to the out-patients' department. Over and over again we have had patients who belong to clubs.

2204. There is no check on that? No. We ask them the question whether they belong to a club.

D. H. Easton sworn and examined:—

2205. *President.*] You are President of the Balmain Hospital? Yes.

2206. When was that hospital established? In 1884, I think.

2207. Was that on its present site? No; it was established on the present site in 1885.

2208. Where was the original hospital? As nearly as possible, on the site of the present Balmain Court-house.

2209. What is the area of the present site? 3 roods 25 perches.

2210. That was purchased in 1885? Yes.

2211. And the hospital was opened in 1885,—was it? Yes.

2212. What was the original accommodation of the hospital? In the present hospital there were originally two wards—a male and a female ward—with, I think, four beds in each.

2213. What additions have since been made? Considerable additions have been made. There was one room that was used as an operating room, which we turned into a ward, and a new operating room was erected at the back of the premises. Since that a new wing has been put on with nine extra beds. That was erected in February, 1897.

2214. There was a building on the site? Yes; the present building was on the site when we purchased it. That cost £3,000.

2215. That is, including the additional buildings? Yes; the whole thing.

2216. What is the cost of the whole of the additions up to date? The cost of the latest additions was £1,605. I do not know exactly what the new operating room cost. It is not included in that estimate.

2217. How was money raised for the purchase of that property? By subscriptions, donations, and Government subsidies.

2218. What grant did you get in aid of the building? No special grant at all.

- D. H. Easton. 2219. Are the only grants that you got the annual subsidies £ per £? We had a special grant previous to the building being erected, but it was not for the purpose of paying for the building. I think the amount was £200. The Treasurer told me that £100 was also given at another time.
- 15 June, 1899. 2220. Except that £200, you had nothing from the Government but the £ per £ subsidy? No.
2221. You say that the cost of the original site and building was £3,000, and £1,600 more was spent on additions and furniture? Yes.
2222. That makes £4,600;—has all that been raised by voluntary subscription? Yes. Subscriptions, donations, and fees from patients who can pay, and the money that we received from the Government.
2223. Have you had any considerable donations or legacies? No. The late Mr. John Booth left us £24 in his will.
2224. What has been the cost per bed for the building? The total cost of the building is nearly £200 a bed, but there is the cost of the new operating-room upon that.
2225. The cost has been somewhat over £200 a bed? Yes.
2226. Are the trustees members of the committee? Yes. They can do everything that a committee-man can do.
2227. How many medical officers have you? We have one paid medical officer and four honorary men.
2228. How much does your paid officer receive? £100 a year, but £50 additional will be paid in future.
2229. How do his duties differ from those of the other officers? Last year his duties were entirely in connection with out-door relief. Now he has to admit any cases of accident that come, and he has entire charge.
2230. So his duties altogether are pretty heavy? Yes, because we have a very large amount of out-door work.
2231. How often do the other four medical men visit the hospital? They have the privilege of sending in cases from outside, and one performs the duties of honorary medical officer each month.
2232. They take the honorary position alternately, then? Yes, month about.
2233. What was the cost per bed for maintenance in 1898? £87 15s.
2234. How many individuals were treated in the out-door department in 1898? 1,558.
2235. Those were separate individuals? Yes; and the number of attendances was 6,608.
2236. That is a large number, is it not? Yes; an enormous number of people come there.
2237. What is the cost of the out-patients' department? The cost of the out-patients' department was £291 10s. in 1898.
2238. How was that made up? We reckoned £100 for the surgeon for the out-door department; £51 for drugs, dressings, &c.; and £140 for other expenses.
2239. *Dr. Manning.*] You have a sum of £71 from patients in your report;—in what amounts was that received? In small sums. They are supposed to pay so much; but if they cannot, we take what they can give.
2240. What did they give? Some 10s, some 5s., some the whole amount that was charged.
2241. What is the highest amount charged? 3s. a day. They are recommended to give a coin before they leave, and if they can pay they do; if they cannot pay they are allowed to go. An inquiry is made into their circumstances, and if the committee think they can pay they are written to for the money.

Frederick Sparrow sworn and examined:—

- F. Sparrow. 2242. *President.*] You are Secretary of the People's Prudential Benefit Society (Limited)? Yes.
- 15 June, 1899. 2243. Some evidence has been given in reference to one or two societies;—can you tell us when that society was established? It has been established about three years.
2244. What are its objects? The primary object is to provide medical attendance and medicine, for a fixed weekly payment, to such members of the community as desire to obtain it through us; and we furthermore, in consideration of a slightly higher payment, guarantee the payment of a fixed sum on the death of a member, or of a member's wife; a fixed sum upon the death of children, according to age; and certain compensation, by way of weekly payments, during certain diseases.
2245. Is it a proprietary concern? Yes; it is registered under the Joint Stock Companies Act.
2246. Is there a paid-up capital? Yes.
2247. What is the amount of the paid-up capital? About £4,000.
2248. How are the executive appointed? The Board of directors are appointed by the shareholders.
2249. Are you the executive officer? Yes.
2250. The revenue consists, then, of the member's weekly or monthly subscription? Yes.
2251. The first charge upon the revenue, I presume, after the ordinary expenses, is the payment of the doctors and chemists? Well, no doubt they would constitute a first charge, but the payments at death are equally important. They are provided for year by year by setting aside a certain reserve.
2252. The prospective payments are made up as a reserve? Yes; and so far the society has set aside towards the credit of the assurance fund the entire excess of income over expenditure.
2253. The payment to the medical men and the druggist would really be part of the annual working expenses? Quite so.
2254. On what scale do members contribute? The contributions of members vary according to the particular benefits desired and according to age.
2255. Do they vary according to income? No; they do not.
2256. They do vary according to age? Yes, and according to the particular class of benefit required. We have several tables, and we allow persons becoming members to select.
2257. Do your rules permit a member to contribute so as to receive merely medical benefits? Yes; a member can do so if he wishes.
2258. What is the limit of age? From 16 to 65 years, the premiums being, of course, according to age. The premiums are not uniform.
2259. Have you any limit as regards income? No, there is no limit imposed, but our medical officers would not attend a person who, in their opinion, was able to pay ordinary medical fees.
2260. But suppose you admitted a man as a member, and the medical man refused to attend him, what would happen? There is no fixed contract with regard to medical attention. In a case of that kind we should refund the premium at once.
- 2261.

2261. Then the benefits vary according to the class of assurance that a man goes in for? Yes, precisely. For instance, he can provide for the payment of £30 on his own death, or £20, or £25. The premium would be in proportion. F. Sparrow.  
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2262. Supposing that a member requires only medical benefits, what is the scale of contribution for medical attendance and medicine? That is according to age—7½d., 8d., or 9d.
2263. The member's income makes no difference as regards the contributions? No; I think that at least 99 per cent. of those who subscribe to the society would be incapable of paying the ordinary private fees. Occasionally one who could pay them might creep in. It is absolutely impossible to prevent that.
2264. Then what scale of fees is paid to the medical men and the chemist? The average would be 20s. per member—14s. to the medical officer, and 6s. to the chemist. In some cases the amount is a little less; in some cases it is higher.
2265. Are any dividends paid to the shareholders? No dividend has been paid so far.
2266. Does the constitution provide for dividends? Undoubtedly.
2267. Have you any canvassers and collectors? Yes.
2268. How many? Between thirty and thirty-five collectors. Of course, the number of canvassers varies considerably. We have, on the average, a dozen.
2269. What was the revenue of the society for 1898? About £12,000.
2270. Is that entirely from members' subscriptions? Yes; I think the exact amount was £11,636.
2271. You must have a large number of members? Yes, between 5,000 and 6,000.
2272. That is the whole of the revenue? Yes, exclusive of interest.
2273. *Mr. Barling.*] What advantages over those of other friendly societies would your society give? We contend that it is an advantage for the society to collect the premiums from the members' own residences instead of their being required to attend friendly societies' lodges week by week. Furthermore, we make payments on the death of children up to the age of 16 years, which the friendly societies do not do.
2274. What classes of the community take advantage of your society? The industrial classes entirely.
2275. How are the doctors chosen? We publish our list of medical officers, and any prospective member selects one for himself.
2276. He can select from the list of those doctors who enter into an engagement to attend members of your society? Yes.
2277. How many doctors have you? We have at present seventeen.
2278. In all parts of the city and suburbs? Yes.
2279. I suppose their names are published? Yes.
2280. You say that members can select their own doctor? Yes.
2281. And can they leave him? They can transfer by giving notice from one to another.
2282. Do you find that any of your members belong to the clerical class of the community? I daresay that there may be some few clerks amongst them.
2283. The society is confined mostly to the artisan class? Yes.
2284. How many members do you say you have? Between 5,000 and 6,000—that would mean medical attention for 30,000 individuals.
2285. *Mr. Walker.*] What fee do they pay? It varies; members requiring only medical attention and medicine pay 7½d., 8d., or 9d. a week. If they require benefits of a more substantial character the payment would be something between 1s. and 2s. 6d. a week.
2286. There is nothing in your rules to prevent these people from going to any other institution to get medical advice? No; if they like to go to the hospital we cannot prevent them from doing so.
2287. You do not know whether any of them do go there? It is a very difficult question to answer. I should think that at least 99 per cent. of our members would take advantage of our medical benefits. A man meeting with an accident in the street would be taken to a hospital whether he is entitled to medical attention from us or not. Some do find their way there, but very few, I should imagine.
2288. *Dr. Manning.*] You have a medical examination, I suppose, before admitting a person to the medical benefits? No; we do not absolutely insist upon a medical examination, provided that from the information given by the member we are satisfied that the health of the family is good.
2289. What proof do you require? A written statement and a declaration to that effect. If the declaration is found to be untrue, it invalidates the whole thing.
2290. You differ from ordinary friendly societies, because they insist on a medical examination before a man is put on the list? Yes; we do not insist, though we have a right to do so.
2291. If you know that a person is in bad health, do you make him pay larger fees? No.
2292. You have only one scale of fees, and that is according to age? Quite so.
2293. *Mr. Powell.*] You collect from the people at their homes? Yes.
2294. And in the event of their inability to pay, what course is taken? They are entitled under the regulations to four weeks' grace. If their arrears of premiums do not exceed four weeks they remain good on the books. If the arrears exceed four weeks they are liable to be taken off, and it lapses subject to re-entry on payment of the arrears.

John Gelding sworn and examined:—

2295. *President.*] What position do you hold in respect to the Manchester Unity O.O.F.? I am District Secretary. J. Gelding.  
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2296. What is the provision made under your rules for the medical treatment of your members? The provisions are that they pay so much money towards the management expense fund, and the lodges in Sydney band together and have what they call a Medical Institute with doctors and dispensers. They have four doctors, who attend to about 4,000 members and their wives and children. They attend accouchement cases too, for which the member pays 10s. 6d.
2297. That is a special fee? Yes; and the Medical Institute pay the other 10s. 6d., so that the doctor gets 1 guinea.
2298. Is there a special fund? No; it all comes out of the management expenses fund. They pay 6d. or 7d. a week to that, but the Medical Institute, owing to the great numbers that they have, and having a dispensary

J. Gelding. dispensary of their own, and buying their own medicine, and making special arrangements for doctors, are able to do it for 3s. 6d. to 4s. 6d. a quarter for each member. In the suburbs, or in the country, they pay 6s. or 7s.

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2299. Is it the largest body in New South Wales? Yes; it is the largest and the richest.

2300. What are the subscriptions paid by members? 8d. to the sick and funeral fund by old members. New members pay according to a sliding scale (A or B, whichever they like). Young men, from 16 to 20 years of age, joining will not have to pay so much as the old ones; it rises up to 40. Then we do not take them in. We pay an extra fee to the management expenses fund, which pays for the expense of management and the doctor's medicines.

2301. Do the members attend at the dispensary? They are supposed to attend if they are able; if not, the doctor has to visit them.

2302. Where is the dispensary? In Elizabeth-street, near the Synagogue.

2303. Is it a usual thing for Friendly Societies to have dispensaries? They are beginning to use them now. They unite together for that purpose. At Balmain they have united together to have a joint dispensary, and doctors. They are able to work it very much more cheaply that way.

2304. How do the doctors like it? There is no grumbling, and we have good doctors. To a doctor, attending Friendly Societies' lodges is a stepping-stone to practice. All our old doctors in New South Wales, who have made their fortunes, had their first practice in Friendly Societies' lodges.

2305. Is there a special subscription required as regards membership of the dispensary, or does the usual fee cover the lot? The usual fee covers the lot.

2306. How many medical men are appointed? There are four at the Medical Institute, Elizabeth-street; and at the Newtown lodge, with nearly a thousand members, they have four doctors.

2307. You have a large membership in the country districts? Yes, all over New South Wales.

2308. What do the medical men receive per member? About 6s. a quarter. In the Medical Institute they get £250 a year altogether. They get the accouchement cases, and it mounts up. In the outlying lodges some of them pay one guinea.

2309. Do your doctors send many members to the hospital? No, very few.

2310. What cases do they send? If they get a chronic case they try to send it to the hospital, but they will not take chronic cases. When they have to have patients for surgical operations they send them to the hospital. They have to come to me for an order, and the rule I make is this: If it is the case of a single man, I say, "You will have to pay so much off your sick pay to the hospital." If it is the case of a married man with a wife and children, I simply write and say that the family want all the money.

2311. Then the weekly payment goes to the wife and children? Yes. If they can pay I say, "You should pay."

2312. Do members take much advantage of the out-patients' department of the hospital? Very few. There might be some from the country.

2313. Do you give orders for the hospital? Yes, I give orders.

2314. Do the societies do anything for the hospital in the way of subscribing or getting up demonstrations or fetes? I think they do pretty well. The Oddfellows go into the demonstrations every year. They perambulate the streets, and hold up the banners, and they gather in money. We pay £10 a year to the Sydney and Prince Alfred Hospitals. They do very well, I think, out of us.

2315. Do you happen to know what proportion of the population are members of Friendly Societies? No. I know that the Sydney District has nearly 10,000. I suppose there are about 19,000 in our Order in New South Wales.

2316. Are your members increasing or falling off? They are increasing now. When the depression took place in 1894 they went down. They could not afford to pay the money, but we made a rule at that time so that every member who paid to the benefit fund was kept good on the books. We lost a great number of members, but during the last year or two we have pulled them up, and we are getting beyond what we had before. The same thing occurred in Victoria.

2317. So that your members are becoming financial again? We are getting a lot more.

2318. How many who dropped out rejoined? Very few have rejoined. When they go out they seldom rejoin. My experience of the working population of New South Wales is that they do not care as long as they have the hospitals to go to.

2319. You have had a wide experience? Yes.

2320. *Mr. Barling.*] How long have you been in your present office? Thirty-two years.

2321. So, of course, hardly anyone in the community can have had so large an experience in these matters as you have had? I have been very active in it for nearly forty years.

2322. What class of the community join these societies? All classes. Even clerks are joining now.

2323. Are there many clerks joining? A good many.

2324. I suppose you ask no questions as to what means they have, as long as they are healthy? We do not interfere with that. If a man chooses to be provident we consider it our duty to take him in. A clerk can generally consume all the money that he earns. It is a splendid thing if a wife has £50 on her husband's death and medical attendance. The medical attendance is as good as you could wish for.

2325. Then, from your knowledge, a large number of the clerical class are now coming in? Yes.

2326. They are coming in in increasing numbers? Yes.

2327. A statement has been made that you have a certain number of members who are called honorary, who do not take advantage of the funeral benefits, but who join for the purpose of getting the medical benefits? We do not allow that; honorary members can have no medical benefits. To do that they must become financial members.

2328. The statement has been made that persons with salaries of from £1,000 to £1,500 a year join the societies and take advantage of the benefits? I do not know anything about that.

2329. It is not the case? No.

2330. What I mean is, that if they choose to become financial members they can do so? Yes; then they can have the benefits.

2331. Have you members with large incomes, who join as financial members to get medical aid? I do not know whether they are getting great wages, but there are clerks amongst the members. From my experience of over forty years I know that when societies get as old as the M.U.O.O.F., if they have no invested funds, they must go down. We started early and have a splendid nest-egg. The others, when they get old and give much money, will have to go.

2332.



2332. Because they were not financially sound? Yes.
2333. *Mr. Walker.*] An individual only pays 8d. a week to the society? Yes; and perhaps 6d. a week to the management expense fund in addition.
2334. That is 1s. 2d. a week? Yes.
2335. You said it was 8d.? Eightpence for the sick and funeral fund. The doctor is paid out of that 6d.
2336. 1s. 2d. is all that a member has to pay, and that includes everything? Yes.
2337. How many people does this 1s. 2d. a week include? If the wife dies before the husband, the husband gets £15.
2338. How much is there for a child? We do not give anything for children.
2339. *Dr. Manning.*] Am I to understand that you pay each of the doctors £250 a year, and such fees as he may get from midwifery cases? Yes.
2340. Then you do not pay the doctors so much a year per member? Yes; where they have not a medical institute it is all under that system.
2341. How much do you pay to the doctor per member? About 6s. a quarter, or £1 to 24s. a year.
2342. Does that include medicine? No; that is separate.
2343. Your payments are from £1 to 24s.? Yes.
2344. The highest amount paid by any society is £1 6s., is it not? Yes.
2345. You give a sum of £10 a year to the hospital? Yes, to the Sydney and Prince Alfred Hospitals, and this year to the Glebe Children's Hospital. There is a row about St. Vincent's in connection with the matter.
2346. And you give orders on the hospital? Yes.
2347. But you do not give orders on the Prince Alfred Hospital, do you? Yes.
2348. What is the form of recommendation? Just a memo. I say, "Please admit So-and-so, who is advised to go into the hospital, and is able to pay so much a week," or, "who is unable to pay anything, having a wife and children depending on his sick pay."
2349. And are those orders always honored by the Sydney Hospital? Yes.
2350. How many do you give in a year to people who are not able to pay at all? I do not think it averages above five or six.
2351. So the society pays about £2 for each of those to whom you give orders? Yes; and I believe the hospital authorities get some money from the Government.
2352. You do not put people on your list of members without at first having them examined medically? No; they have to be examined.
2353. *Mr. Powell.*] The Manchester Unity is in no sense a charity? Not at all.
2354. Suppose that a man with a large or small income comes, you ask him no questions if he stands the test required for membership? No.
2355. Whatever his income may be, he has a right to the same advantages as any other member? Yes, if he pays for them. In case of sickness they get a guinea a week for the first six months, 15s. for the second six months, 10s. a week for the third, then, if the case becomes chronic, the patient gets 5s. a week afterwards.

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WEDNESDAY, 21 JUNE, 1899.

[The Commission met at the offices of the Public Service Board at 2.30 o'clock p.m.]

Present:—

F. NORTON MANNING, Esq., M.D., IN THE CHAIR.  
J. BARLING, Esq., J.P. | CRITCHETT WALKER, Esq., C.M.G.  
J. POWELL, Esq., J.P.

Alfred Davis sworn and examined:—

2356. *Dr. Manning.*] What are you? Registrar of Friendly Societies and Trades Unions.
2357. Can you tell us the number of orders of Friendly Societies that there are in New South Wales? Yes, the number of orders is 16. In addition to that 16 orders there are several that we call miscellaneous societies, single bodies without branches.
2358. Do all these orders miscellaneous and otherwise provide medical attendance for their members? They all provide medical attendance, some of them provide for nothing else.
2359. Which are those which provide for nothing else? I cannot tell their names at present. Many of the Daughters of Temperance exist only to provide medical attendance for their members.
2360. There is no other benefit accruing for them to their members except medical attendance? No.
2361. What is the total number of members of the different branch societies, miscellaneous and otherwise? From returns sent in the number is 69,124. Of course these are a few societies which neglect to send in returns. They are societies the existence of which we are not aware of.
2362. What is the total amount paid for medical attendance and medicine by Friendly Societies during the year 1897? The amount is £63,973.
2363. And the amount paid to sick members during the year? The amount for sick allowance during incapacity was £56,561.
2364. What was the average amount paid for medical attendance and medicine during the year per sick member? £5 15s. 9d.
2365. And what was the average allowance to sick members during incapacity? £5 2s. 4d.
2366. *Mr. Barling.*] From a return which I have here, it appears that in 1893 the number of members in connection with the Friendly Societies of New South Wales was 71,218. I think you have given the number as 69,000. Although the Colony has increased in population, it would appear that the number of members is falling off. Can you give us any reason for that? Yes, bad times. In the mining districts especially members are apt to fall off. The numbers are gradually increasing again now, but some of the lodges were actually closed on account of the bad times.
2367. How many were closed? I do not know, but a considerable number, and not only that, many of the miners have had to leave the Colony and go to Western Australia.

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2368.

- A. Davis. 2368. Can you tell me what the population was in 1893 and 1897? No.
2369. It really means that though the Colony has increased in population, there has not only been a standstill, but a decrease in regard to the membership of the Friendly Societies so that that indicated a very large falling off? Yes.
2370. And it is accounted for in the way you speak of? Yes; in any grand centre they will tell you that the mining districts have suffered severely, especially in the Newcastle district.
2371. Can you give an estimate of the number of persons who would reap the benefit of the Societies containing that 69,000 members? The number of members is about 70,000. I think, indeed, there must be over that, because there are some Societies whose returns we have been obliged to send back.
2372. Can you tell me how many that number of members would represent? The number of persons benefited would be four and a half times the number of members. My estimate is four and a half to a family. In England it is 4·7.
2373. Will you tell us the number of members admitted during the year 1897? 8,548.
2374. And the number of members lost? 8,593.
2375. Also the number of members sick during the year? 11,054.
2376. *Mr. Powell.*] Is registration compulsory? If they provide any benefit which is capable of calculation. There is a penalty of £20 for each time of collection unless they are registered—each time they hold a meeting; but the difficulty is to find out about it. Suppose some individual comes and lodges a complaint before me; he will not sign a declaration, so that if I were to try to prosecute, I should find no one willing to give evidence.
2377. You said that some societies have not furnished returns? Some have not.
2378. Have you no power to compel them? I do not know of their existence, and a great many drop out, simply die out. Whenever we miss one like that, if we do not get any information, I write about it.
2379. Do you make any inquiries yourself, or do you leave it to chance to find out whether these societies have died out? We write to the Grand Secretary, and ask the secretaries of the different bodies to give information about the society.
2380. Do you know anything about the financial condition of these various societies? We have an elaborate table, but during the last two years they have not been printed with the details of each individual lodge membership. The table gives every information that could be desired.
2381. Those tables are authorised by you? They are compiled by me.
2382. But have you authority to make it incumbent on these societies to collect under these tables only? There is a penalty for not sending in their returns, but as the Act does not state in what form the returns shall be made out, it is sufficient for the secretary to say receipts so much, expenditure so much.
2383. It is in their own option, then, to charge what they please for benefits? They must charge according to their rules, and the rules and rates of contribution in regard to benefits are supposed to be certified to by an actuary.
2384. Are they so certified? Yes, ever since we took the business over. Mr. Trivett is acting now.
2385. Then they are all subject to the supervision of a Government actuary, are they? There is no Government actuary for Friendly Societies.
2386. Then what position does Mr. Trivett hold? As a Government actuary he is a recognised actuary, and he is willing to do it to save them expense, otherwise they might be charged 50 guineas.
2387. As a matter of fact, he is a Government actuary? He is actuary to the Public Service Board.
2388. It is part of his duty to examine the affairs of these societies? No, it is not his duty. It is done voluntarily.
2389. Is it anybody's duty? No; they supply an actuary's certificate and if they choose to go and pay a fee their certificate must be accepted. I must take any actuary's certificate.
2390. *Dr. Manning.*] There are about 70,000 members of these societies? Yes.
2391. And each of those members represents a family of four and a half? Yes.
2392. So that we have about 315,000 people obtaining medical attendance and medicine, through the Friendly Societies? Yes; there are cases of persons belonging to several societies.
2393. But they would only get medical attendance for one? Only for one.
2394. *Mr. Barling.*] The percentage of members of Friendly Societies and their families to the population is given as 43 in South Australia; the corresponding figures in the other colonies being as follows:—New South Wales, 23 per cent.; Queensland, 16 per cent.; Victoria, 27 per cent.; Western Australia, 9 per cent.; Tasmania, 25 per cent.; New Zealand, 17 per cent. Do you know of any reason to account for the high percentage in South Australia? No; it is a mistake. Medical attendance and medicine in this Colony costs the members of the Friendly Societies between 6d. and 6½d. per head. It is said, that in Sydney 26s. a year is paid for medical attendance and medicine. In England they do not provide medical attendance for members and their families unless they pay extra for it. If a society joins the medical association a member pays 3s.; if an individual member wants to join the association he pays 4s. If he wants his wife to obtain medical benefits he pays an extra 4s., and he pays 5s. for the rest of the family; that is 13s. as compared with 26s. here.
2395. *Dr. Manning.*] How much of the 26s. a year is given to the doctor and how much to the chemist? In Sydney, where they belong to dispensaries, the dispensary provides the doctor and the medicine.
2396. You do not know the average fee paid to the doctor? No.

Odillo Maher, M.D., sworn and examined:—

- O. Maher, M.D. 2397. *Dr. Manning.*] You are one of the ophthalmic surgeons at the Sydney Hospital? Yes.
2398. And as such you have charge of the patients in Moorcliff? Yes.
2399. How long have you been connected with the Sydney Hospital? About thirteen years.
2400. Do you consider the site at Moorcliff a good one? Yes; there is no objection to the site.
2401. Have the results obtained there been satisfactory? Yes, very satisfactory.
2402. And are the buildings suitable and satisfactory? No, not at all. I did not think they are on the plan of a modern hospital, and we have not sufficient room for the number of patients that we accommodate there. We have no operating theatre. I do not think that there is sufficient land to allow the patients that we have there to take proper exercise.
2403. Do you consider the nursing satisfactory? Yes; we get very good results.

2404. If Moorcliff were abolished, what do you think would be the best way to provide for ophthalmic patients? I think there should be an ophthalmic hospital with, at least, 100 beds to accommodate the patients.

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2405. Have you any views as to where that hospital should be? I think on any suitable site in Sydney.

2406. Do you think it should be managed as a distinct institution or in connection with one of the existing hospitals? I think as a distinct institution it would be better.

2407. What would be the advantages of that? I think it would be better, but it could be managed satisfactorily in connection with one of the existing hospitals.

2408. It might be more expensive also? I do not know anything at all about the expense, but I may say that ophthalmic cases are not expensive cases. They involve little or no expense in regard to food, and, being generally of robust health, they do not require extra diet. The dressing is inexpensive, the nursing staff comparatively small, and the instruments last many years and cost very little. The expense is simply a matter of food and the maintenance of the staff. I do not know whether the institution could be managed more economically as a separate institution than in connection with another hospital.

2409. Have you arrived at any conclusion as to what is the cost of patients at Moorcliff? No.

2410. Do you think it is much less than that of ordinary hospital patients? It must necessarily be, but I do not know what the expense is.

2411. We find that a very large number of these cases are cases of granular lids? Yes, I should say that at any time the majority in the hospital are cases of granular lids, but I do not think we admit as many cases of granular lids as of other diseases. The granular cases are chronic cases, and remain in a long time.

2412. Taking the number of beds occupied at any time, what are the majority of cases? Cases of granular lids.

2413. To the extent of three-fourths of the total number? I should think so.

2414. Could not these cases of granular lids be provided for quite as well in an institution in connection with an asylum for the infirm and destitute, supposing it was properly officered as regards medical attendance? Do you mean entirely distinct, and solely and wholly for ophthalmic cases?

2415. Yes, but in connection with one of the asylums? Would the building be quite distinct?

2416. It would be a separate pavilion? There is a great objection to that. The majority of the cases that are chronic cases come from the country; they are people who are not willing to go to what I might call poor-houses; they would resent that. There are the children of farmers, working people, and others to whom I think it would be demoralising to be put into a poor-house in connection with the Government asylums. As far as the treatment goes, of course, any ophthalmic surgeon could treat them in a separate building.

2417. Very often the ordinary practitioner would be quite able to treat cases of granular lids? I do not think so. I consider they are the most difficult cases to treat properly.

2418. The patients are now received at Moorcliff in a Government establishment, why should there be any objection to their getting the same assistance in connection with an asylum for infirm and destitute? It may be purely sentiment. Many would go into Moorcliff who would not go into a Parramatta institution. I think it would be degrading to many of them to go into an institution in connection with the asylums for the infirm and destitute.

2419. But if you removed three-fourths of the cases requiring operation and more active treatment, could they not be dealt with in connection with Prince Alfred or the Sydney Hospital? They could be.

2420. Acute cases require no very great space to move about in because they are mostly in bed? No; there are very few cases kept in bed. I suppose that the cases that are kept longest in bed are cataract cases, and the extreme period will be a week. The patients are always moving about; they may have one eye tied up, but very few are confined to their beds at Moorcliff.

2421. Moorcliff is taken very little advantage of by the students of the University? Very little.

2422. How do you account for that? Well, I think they see in the out-patients department the kind of cases they expect to meet with in private practice. As a rule these students do not intend to be specialists, and they take very little interest in operations. Prince Alfred Hospital is more convenient for them.

2423. The students do not come to Moorcliff even to take advantage of the instruction that they might receive there in minor matters apart from operations? The visiting hours may not suit them. They go to the Sydney Hospital.

2424. *Mr. Barling.*] I think you said, and Dr. Evans gave the same evidence, that the site of the Moorcliff Hospital is peculiarly suitable? Yes, it is very suitable.

2425. Would you insist upon a hospital being provided on a site somewhat similar to that? No, not necessarily.

2426. Is there any site about Sydney that would be equally good? I think there must be numbers of sites about Sydney quite as good.

2427. Your evidence shows that the buildings are utterly unsuitable? Yes.

2428. The same fact was strongly impressed on the members of the Commission when they visited the place;—do you not think that for the same money it would be possible to get more suitable buildings? I think there should be a hospital. If a building is to be got, it should be one that has been erected for a hospital. They pay £300 a year for Moorcliff, but I do not think that you could get any other more suitable building for £300 a year.

2429. I suppose your opinion is that better provision should be made as quickly as possible? Yes, it is an urgent matter. The place is overcrowded, and patients are constantly being sent away. They get orders for admission, but there is no room.

2430. Grave complaints have been made to us by many doctors in Sydney that a large number of cases are sent to the hospital which should not be taken, to the great disadvantage of the medical profession;—has anything of that sort come under your notice? That is constantly taking place. It is very difficult to inquire into the cases, especially when they come from the country. I have no doubt that the hospitals are abused in that respect. I would not say very much abused, but they are abused.

2431. Evidence has been given to show that it was partly due to the high fees charged by the doctors;—do you think there is anything in that? That may apply to some cases, but I do not think it would apply to all.

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2432. Or to any large extent? I really could not say. I do not know the circumstances of the patients. It is only by accident that I have found out that persons who have been in the hospital and received gratuitous treatment were fairly well to do. The majority of the cases that I have to deal with come from the country and from the neighbouring colonies to Moorcliff.
2433. *Mr. Walker.*] Do you think there is any possibility of improving the building so as to make it more suitable? It might be done.
2434. Do you think the building is sufficiently substantial to be altered? It appears to me to be substantial enough. The walls are of solid stone.
2435. It is a very suitable place for the treatment of eye diseases? Yes.
2436. And you could not put up a hospital to give the same accommodation that you have there for a sum, the interest on which would amount to £300 a year? No. I think the interest on the money required to put up a hospital and purchase the land would be more than £300 a year.
2437. Do you think there is sufficient ground in that locality which might be acquired by the Government on which to put up a suitable hospital? No; I think there is not sufficient ground. I think that if a hospital were built for ophthalmic patients there should be provision for at least 100 beds, and I do not think there is sufficient land available there for that accommodation to be provided and to allow room for exercise.
2438. Is there any reason why an ophthalmic hospital should be in the centre of population;—could it not be out of town? If the hospital were out of town it would be very inconvenient for specialists to attend it. It would be objectionable to have it too far away.
2439. The great difficulty, I fancy, would be to obtain a site in a locality convenient and suitable to the medical men? Yes.
2440. Do you think the existing establishment satisfies the present requirements of the community? I do not. As I said before, we are overcrowded, and I think the present arrangements are inadequate.
2441. I presume that you would recommend the establishment of a new hospital altogether? Yes, with about 100 beds.
2442. Then it would all depend upon the question of site and the money to erect the hospital? Yes.
2443. *Mr. Barling.*] I suppose you know that this Commission has recommended the resumption of the site of the School of Industry as a site for a maternity hospital? Yes.
2444. Would it be possible in conjunction with that on that ground to build a hospital for ophthalmic cases;—would an ophthalmic hospital, if erected there, interfere with the maternity hospital? I do not think it would if there is sufficient land.
2445. Do you think that if the maternity hospital and the ophthalmic hospital were put there, one would interfere with the other? I do not think they would interfere with each other.
2446. Do you think it would be a good place for an ophthalmic hospital? I see no objection to it.
2447. Suppose the Government got that land, do you think it would be a good plan to carry out what I have suggested? I think it would.
2448. I do not mean that we should have the two institutions in the same building? I do not know whether there would be sufficient land there.
2449. There are about 3 acres of land? Of course, the ophthalmic hospital would be a distinct block. There is one thing I should like to mention with regard to the asylums. I think there are a number of patients who go into those establishments who ought to be treated by specialists. I have had some little experience of the matter, and I think that a great number of the patients who go in there require special treatment. I am certain that they cannot be properly treated by anyone who has not special knowledge. I know that when I was connected with the institution, patients were sent from the hospital when fairly convalescent, such as we considered suitable to go into the asylum. Of course, it was known that they would get special treatment. I do not think the hospital is relieved to that extent now. I am sure that many patients who are admitted to the Parramatta institution might be cured and sent out, and become useful members of society, but I hardly think it likely that that will take place without specialists connected with it. I might mention the case of a person who was in an institution in Parramatta. The doctor thought that the man had cataract, and kept him there till he went blind. Then he sent him to Moorcliff, but he was hopelessly blind, suffering from glaucoma. Had that case been dealt with by a specialist, the man would have been operated on at once, and he would have had the use of his eyes for the rest of his days. Batches of patients are sent down for operations when no operation has to be done, and they are sent back again. I think that a good deal of suffering could be avoided and useful vision retained by many people who go into Government institutions, if ophthalmic surgeons were connected with those establishments.
2450. *Dr. Manning.*] You say that you think the patients would object to going to the asylums for the infirm and destitute, but suppose the Government were to establish a hospital for chronic cases of all kinds apart from the asylums for the infirm and destitute, and corresponding to the sick asylums that exist in England, do you think there would be any objection to patients afflicted with eye diseases going into them? Not at all, provided that they had specialists to attend them. The patients would not go into what they would look upon as a poorhouse.
2451. That is because the present asylums for the infirm and destitute are looked upon more as poorhouses than as hospitals? Precisely.
2452. Whereas if they had no connection with the Government Department of Charities, and there was a hospital on modern principles having wards for special forms of disease you do not think people would object to go to them? No, certainly not; but of course I think that specialists would have to treat the cases.
2453. There would be no more objection to go to an institution of that sort than there is at present to go to Little Bay? No, but there would be an objection to go into an institution that is looked upon as a poor-house such as those at Parramatta.
2454. It is rather an objection to poorhouses as they exist than to hospitals connected with poorhouses as they should be? Yes. It is a matter of sentiment.
2455. *Mr. Walker.*] What area would be necessary for a hospital of that kind? A couple of acres would be ample.

WEDNESDAY, 28 JUNE, 1899.

[The Commission met at the Offices of the Public Service Board at 2.45 p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).	
F. NORTON MANNING, Esq., M.D.	J. BARLING, Esq., J.P.
J. POWELL, Esq., J.P.	CRITCHETT WALKER, Esq., C.M.G.

Frederick J. T. Sawkins, M.B., Ch.M., sworn and examined:—

2456. *Dr. Manning.*] You were for some years Medical Superintendent at the Prince Alfred Hospital? Yes, for five years.

2457. You are now one of the medical officers of the M.U.O.O.F. Society? Yes; amongst other things.

2458. We wish to ask you a few questions in regard to the system in connection with the M.U.O.O.F.;— you are paid a fixed annual salary in connection with that Society, are you not? Yes.

2459. What do your duties consist of? There are four of us. £1,000 is divided annually between the four doctors who have this lodge, and we are supposed to attend at the rooms at the M.U. Hall three times a week. Two of us go there on Mondays, Wednesdays, and Fridays, and two on Thursdays, Tuesdays, and Saturdays, before 12 o'clock. In addition to that, if any messages are sent requesting the attendance of one of the doctors between 10 and 12, a visit is supposed to be paid that day if possible, but with regard to these visits the name of the doctor has to be specified. The members of the Order have to send in for the doctor whom they wish to see, and it turns out sometimes that one unfortunate man may have to pay four, five, or six calls whilst the other three have not to make any at all.

2460. Nothing is paid for those extra visits? No; it is all included in the salary. There is also the usual fee of 1 guinea for midwifery.

2461. How are medicines obtained? There is a dispensary under the care of a dispenser and an assistant dispenser, who have to dispense all the medicine prescribed for patients.

2462. Are the waiting-rooms for patients convenient? Yes.

2463. Are you satisfied with the drugs that are supplied? Yes.

2464. Are they of good quality? Yes, they are. I think they were about one of the first dispensaries to bring the drugs up to the 98 standard in the new pharmacopœia.

2465. To what class do the people who attend there and whom the doctors attend at their own homes belong? To all classes; from the poorest person to the ex-Crown Minister.

2466. There is no wage limit? No.

2467. They could always find medical men to do the work? Yes, they always could.

2468. Are there any objections to the system as it exists, beyond the fact that the Society has no wage-limit? Yes there is, because the £250 a year for each of the medical men is very small remuneration for the amount of work which may have to be done. As a matter of fact they do not overwork their men as a rule. I have been there for about eight months, and I am perfectly satisfied that the £250 a year has fully compensated for the visiting work I have done. But another man may have to do twice as much work as I do in the way of visiting. Moreover, in case of an epidemic I should not be at all satisfied with the pay.

2469. But you have to take the good with the bad times? Quite so; these lodges are not quite so bad as they are made out to be.

2470. They are doing really good and useful work in a manner to which there is very little exception to be taken? One can hardly say that, because one must take great exception to the want of a wage-limit. A number of those whose incomes are above a certain amount have their own doctors, but there are others of that class who would no more think of sending for an outside doctor than of paying us something extra.

2471. *Mr. Barling.*] Complaints have been made of the high charges of the doctors. It has been suggested that the reason why so many persons who have means join societies of this kind is simply that the charges made by the doctors are so high;—do you think there is anything in that? Yes; I think there is a very great deal in it.

2472. We should be very glad to have your views on that point? I cannot state the exact proportion, but some 75 per cent. of the population have incomes of under, say, £120 per annum. If they call in a doctor who charges 10s. 6d., and if they have to pay 2s. 6d. for medicine, 13s. altogether, that is a big call on a man who is getting less than £2 a week. Then again, from my own knowledge of the wage-earners gained at the time I was in the hospital, and during my connection with the M.U., I find that though they may be earning at the rate of £2 a week, they often are not working half their time, so that they really cannot afford to pay 13s. for a visit and a bottle of medicine.

2473. Does not that also apply, though perhaps not quite so strongly, to the clerical class earning from £150 to £250 a year? Yes. It is very hard to say what is the lowest rate which will enable a man to pay a fee of 10s. 6d. and 2s. 6d. for medicine. Some seem to do it on very little. Apparently any one who has £150 a year can afford to pay usual doctors' fees. A great number seem to do so rather than go to the hospital or join a lodge.

2474. *President.*] That would only be for single visits? Yes. They would not be able to keep it up for long.

2475. *Dr. Manning.*] A person has to obtain a certificate of health before he can join a lodge? Yes.

2476. Is there not a large class who are already damaged in constitution, and who are improvident besides, and not able to join these lodges? Most of the candidates for the lodge that I am connected with are young men who have just married or who are about to marry.

2477. And who are in good health? Yes.

2478. There is a large class who could not join any lodge? Yes. We have, of course, to put certain questions when the examination is made, according to the rules of the lodge, and intending candidates have to sign a declaration, but it is a very poor test. There is really no sufficient test of the candidate's health, and this is a serious fault that needs rectifying.

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2479. There is a large class who are really not able to join the lodges? There must be.
2480. Do you think there is any necessity in Sydney for a free dispensary to meet the wants of that class, so that they can obtain medicine at some depôt and be visited at their own homes to prevent them from going to the hospital? If it would prevent their going to the hospital, certainly there is a large class.
2481. You know the constitution of the dispensaries in the old country? No, I cannot say that I do.
2482. It has been pointed out to us that there is a large class who have to go to the hospital now who would be benefited by treatment by doctors in connection with a free dispensary? Yes.
2483. Has it occurred to you what form that dispensary had better take? No, I have not thought the matter out.
2484. Do you know the Regent-street Dispensary? Yes.
2485. Is it of any real use? I should say so, decidedly.
2486. But there is no visiting done from it? No; it is a branch of the out-patients' department of the Sydney Hospital.
2487. And its only use is to supply medicine, and it is a little near to the homes of the patients? That is all.
2488. In your experience at the Prince Alfred Hospital you had a great deal to do with the out-patients' department? Yes.
2489. We find that these out-patients' departments are growing very much;—have you any idea how they could best be restricted? Well, I tried for several years to have a small fee charged at the Prince Alfred Hospital, as they have at the Sydney Hospital. There are dozens and dozens of old ladies who go up there to gossip on the out-patients' day, and who are not happy unless they have a bottle of medicine to take away; but I doubt whether they take the medicine. They come for years and years. It was partly to get rid of these loafers that I proposed to make a charge.
2490. We find that the fee at the Sydney Hospital seems rather to increase than to diminish the number of patients going there? I am surprised at that, because I made inquiries, and they told me that they had reduced their attendances by one-quarter in the first year that they imposed the charge.
2491. I understand that it is impossible for the medical officers to do justice to the patients, owing to their great number? Yes, partly owing to the great number of the patients, and partly owing to the very small number of the medical officers. There are only two assistant physicians at the Prince Alfred Hospital, and they have to see about 15,000 visits in a year.
2492. Do you think that any restriction of the number might be brought about by making the patients bring letters from medical practitioners, stating that they are fit subjects for outdoor hospital treatment? No; I do not think so. We had a rule at the Prince Alfred Hospital that each patient should bring a paper from a medical practitioner, or a magistrate, or clergyman within the district in which the patient was living, but the papers were not worth the cost of printing.
2493. Not even those from the medical practitioners? They may have been, but the others were not. I do not think they came from medical practitioners.
2494. Do you think any restriction can be placed on the number attending in the way in which it is done in the hospitals at home by the medical officers seeing only a certain number of cases every day, selecting the more important of them, and sending the others away? Yes, I think so.
2495. In connection with the Prince Alfred Hospital you had a great deal to do with the collection of sums paid for, or towards, the maintenance of in-patients? Yes.
2496. We should like to have your views as regards the pay-system in hospitals? The amount paid by patients in the first place was not at all adequate to the good they gained from the hospital, and yet it did not matter how little they paid, if it was only 5s. a week, they thought they were entitled therefore to all the advantages of hospital treatment.
2497. They did not consider that they were receiving any charity at all? No. Then in addition to that there is a large class of patients who are sent to the hospital who can afford to pay a small fee, and they are sent there by the hon. medical officers of the hospital to be admitted into the beds of the hospital under their care. For instance, an honorary medical officer may have thirty beds in the hospital, and he may send up thirty of his private cases to fill them.
2498. That is, he sends his private cases that are more or less in necessitous circumstances? They are in such necessitous circumstances that they cannot pay his fees outside; that is the only criterion.
2499. Do you think that the metropolitan hospitals ought to take any fees, or should they treat their patients absolutely gratuitously? The ideal would be to treat them absolutely gratuitously. There should be no question of payment in the case of hospital patients.
2500. What is the objection to taking 5s. or 10s. if a patient can pay? The patient will expect everything for that 5s., and will think he has a right to everything.
2501. Do you think the hospital ought to make any profit out of patients? I do not.
2502. Would you fix any limit to the fees they should receive? As I said before, I think that an ideal hospital would be one that took no fees at all from patients.
2503. Is it a fact that the admission of patients who are able to pay excludes patients who are not able to pay? Yes, it does; but only through that arrangement which I have just spoken of.
2504. And is it a fact also that the directors are much more ready to receive patients who are ready to pay than those who are not able to pay? No; I do not think the directors have anything to do with it. Of course they are very pleased to see that the amount received for patients totals up more each year.
2505. Do you think that everything is done by hospital directors to detect abuses, or can you point out a way of doing that? Well, we were very careful in making inquiries at the Prince Alfred Hospital; but I know that abuses used to creep in, especially with regard to patients sent to us by our own honorary medical men. They would come and tell me that they could not afford to pay anything. When I had any suspicions, I would direct the Secretary to write to the police in the country, and make inquiries, and he would do so. In 50 per cent. of the cases, however, the police refused to give us any information, and there was no one else to apply to. It amounted to a question whether the people were telling the truth or not in 50 per cent. of the cases. We found in a good many instances that they were not.
2506. Do you think that the hospital accommodation for the sick is sufficient at the present time? That depends largely on the class for whom we shall reserve hospitals. It depends to a large extent on the finances of the public. For instance, lots of cases have been treated in the Prince Alfred Hospital that could well have been treated outside.

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2507. If we exclude the people who could be treated in a free dispensary and people who ought not to be admitted owing to their being able to pay fair sums outside, would hospital accommodation be then sufficient, as far as you are able to judge? I really think it would if the cases were redistributed. They are not distributed properly.

2508. *Mr. Barling.*] Do you know what are the usual charges at private hospitals? They vary from 3 guineas a week up to 10 or 15 guineas.

2509. Three guineas a week is looked upon as very low indeed? That is supposed to be a very small fee, and it means that the surgeon does not get anything for his attendance. He attends the patient, and the patient pays 3 guineas a week to the nurses running the hospital.

2510. Then those who are not taken into the public hospitals are compelled to go to these expensive private hospitals? Yes, or be attended at home.

2511. Then they could not afford to pay a surgeon? They can get a trained nurse for 2 guineas a week for everything except infectious cases, and sometimes for less. It is not every case that requires a trained nurse.

2512. Do you not think it shows that a middle-class hospital is required;—if you made the public hospitals absolutely free, does it not show a necessity for a hospital to take in the middle classes? Yes, we certainly need that; but with the number of beds that we have—the Sydney Hospital, St. Vincent's, Prince Alfred Hospital, and the Coast Hospital—one would think there must be quite enough beds, if they are worked properly.

2513. How do you arrive at that conclusion? At the Prince Alfred Hospital, I suppose, quite one-quarter of the cases are surgical cases, and many of those are cases that could be dealt with easily at the Coast Hospital at a saving to the Government and to the hospital.

2514. How do you make that out? Because they come under the category of minor surgical operations. Dozens and dozens are done up there that could be done at the cheaper hospital.

2515. Is it not a fact that the Coast Hospital is nearly always full? Yes; but in the Coast Hospital there are a number of cases that are not suitable for a general hospital, and which should go to an asylum.

2516. Then the meaning of that would be that the asylum accommodation of the Colonies would have to be enlarged, would it not? That may be.

2517. Then you would suggest that a considerable number of patients in the Coast Hospital should be removed to the asylums to make room for minor surgical cases that ought to be sent there? Yes, I am sure that great help could be derived from that.

2518. You recommend that the Prince Alfred, the Sydney, and the Coast Hospitals should be absolutely free; but where would the persons I have referred to go unless there was a hospital such as I spoke of, where they would receive small fees? I think that all those larger hospitals should be free.

See note "A"  
p. 100.

2519. What I am trying to bring out is that there is an absolute necessity for a second-class hospital where the patients would all have to pay fees? Such an institution might be an advantage, but is not a necessity.

2520. Suppose a person has £200 or £250 a year, and he has to have a major operation performed on himself or one of his family, the fee for which would be 100 guineas, that may impoverish his family for life, which shows the necessity for some kind of hospital in which they could be received on paying such a fee as they could afford? They could be accommodated at private hospitals quite well.

2521. How would they manage there? If a man is getting £200 a year he ought to be able to pay 3 guineas a week for maintenance and a small fee to the doctor.

2522. In that case the patient would have to say "I cannot afford to pay a higher fee," and make special arrangements for the payment of a low fee? Yes; he ought to do so.

2523. Do you think that the nurses at the Prince Alfred Hospital are overworked? No.

See Note "B"  
p. 100.

2524. I believe they work ten and a half hours a day? They are on duty ten and a half hours a day, but they are not doing hard work all that time.

2525. So you do not think they are overworked? No; I am certain they are not. The proof lies in the fact that the matron has at present 400 applicants waiting to join the staff. They improve in physique and appearance during the three years they are at the hospital.

2526. *Mr. Critchett Walker.*] You said that the dispensary in Regent-street was doing a lot of good in assisting the Sydney Hospital? I am sure it does.

2527. How do the patients get their medicines from there? I have not been there, but I know that doctors from the Sydney Hospital attend, see the patients, and prescribe for them. I do not know where they get their medicine.

2528. Is it not possible for anybody to go there? Yes; anybody can go there.

2529. Ought there not to be some check on the dispensation of medicine? Certainly.

2530. But there is no check whatever? There is a charge of 1s. I believe the Sydney Hospital charges 1s. for each renewal of a ticket, and I believe that the ticket lasts a month.

2531. Do they produce a ticket? Yes.

2532. There is that little check? I know that there is in the Sydney Hospital, and I presume that there will be at the dispensary.

2533. Have you ever been to the Coast Hospital? Yes.

2534. Do you think that if the Coast Hospital were connected with the Botany tram that it would improve the means of getting to it and render the hospital more useful than at present? No; I do not think so.

2535. You do not think it would facilitate the sending of patients? No; they have a very excellent ambulance service, which is better than any tram, and the result of tram communication would be to overcrowd the hospital with friends of the patients.

2536. You think it would be a disadvantage? Yes.

2537. How about the Prince Alfred Hospital—two tram services go out there, do they tend to overcrowd the hospital with friends of patients? We have a great deal of trouble with the friends of patients at the Prince Alfred Hospital.

2538. It is not an advantage to have tram communication? Not always; it is often a great disadvantage.

2539. I should have thought that having tram communication to the hospital would afford greater facilities for sending people out there, if you had a proper ambulance on the tram? I do not think so.

2540. You do not think it would improve matters at all? No; if a person is sick he comes in an ambulance or cab.

2541. You think that there would be no advantage in having tram communication? I do not think that the disadvantages would be compensated for by the advantages.

2542.

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2542. It would only be a convenience for those attending the sick and persons visiting their friends? That is all.
2543. It would not afford facilities for relieving the sick or those who are injured? Not unless you had a special hospital tram.
2544. I mean that, of course, and that there should be a reception-house in the town? Do you mean that you would have a hospital tram with a surgeon in charge?
2545. Yes; the patient would go to the reception-house, and would be sent out with a nurse or attendant or surgeon, if necessary? They would not send him out direct.
2546. With the ambulance you do not move a man out directly? If you had a specially-prepared tram-carriage for the surgeon and nurses it would help the present ambulance service; but it would not do more than that.
2547. There is an idea at present that the Coast Hospital being so far out, it is not so useful as it might be if it were nearer the town? Well, if they use the Coast Hospital for a larger number of cases of minor surgery, the present conveniences for getting out there are quite adequate for that class of cases.
2548. If they restrict it to that one special object? No, if they use it principally for that. It will always be used until we have further accommodation for infectious cases, and the tram would not do for those.
- President.*] Do you know anything about the medical aid societies? Yes; there are two of them. There is the People's Prudential, a proprietary concern, which is not recognised by the medical faculty.
2549. It is boycotted, is it not? It is absolutely boycotted.
2550. I suppose you consider that it is not conducted on proper lines? No; it is carried on in contravention of the usual ethics of the medical community.
2551. Do you consider that it is a sweating concern? No, not that; but they will canvass other men's patients to get people to join the society, and they do not care whom they get in. They have no wage limit at all.
2552. So it is very prejudicial to the profession? Yes. There is another society which was started by Dr. Rennie in the city and suburbs. That is recognised by the profession, and probably it will sooner or later cut out the People's Prudential. The People's Prudential Society is doing a big business now.
2553. *Dr. Manning.*] Have you any idea of the number of private hospitals that there are in Sydney? No.
2554. What is this North Shore United Friendly Society? I think it is a society on the same lines as the M.U.O.O.F. They have four doctors there. I know there is a large society at North Sydney.
2555. *President.*] Is there anything else that you would like to say which has not been touched upon? There is one point which I fear I have not made as clear as it should be, and that is the question as to the right of the honorary medical officers of the hospital to fill up all the beds under their care from their own consulting rooms. I spoke about this when I was at the hospital. I always thought it was a great wrong—that it was not fair. I admit that a good many do not think the same as I do on the subject; but I have always thought that the practice was a very great wrong to the indigent sick.
2556. Do they not fill those beds with necessitous cases? No, they are not necessitous cases from the general point of view. They are necessitous cases from the surgeon's point of view. They are too necessitous to pay his fees; but they could pay a fee.
2557. They could pay a fee? Yes, a fee that would be quite sufficient for a junior doctor; this is the point. The public hospital is thus used as a private hospital for the honorary officer's middle class and poor patients.
2558. So that many of those patients admitted on the orders of the honorary medical officers, who could not make arrangements with those particular men, could make arrangements with some other medical man to pay a suitable fee? Yes, that is the point; and they could make arrangements with the honorary medical man if he would take a smaller fee, which he will not do as long as he can get the hospital to take them in.
2559. Are there many cases of that kind? I think so.
2560. In those cases are the doctors allowed to charge the patients anything? No. The charge is received by the hospital if the patients are in private wards, and the amounts are placed to the credit of the honorary medical officers by whom they are treated; but the medical officer always returns the money to the hospital.

*Notes by Dr. Sawkins on revision of evidence.*

A.

The opinion is widely held amongst the medical community that general hospitals should be free, and maintained for the use of the indigent sick only. Such an arrangement would be an ideal one, and would necessitate the financing of the institution by the Government.

The scheme for a middle-class hospital or hospitals for patients who could not afford to pay a doctor for a continued illness, or the fees for a large operation, but who could afford to pay something, would become practicable.

The two following questions would, I feel sure, assume a very important position, and require very careful consideration:—

- 1st. Should there be an appointed staff of medical officers, or should any duly qualified and registered practitioner have the right of sending and attending his own cases?
- 2nd. To whom should the fees revert, that are paid by the patients, to the hospital management, or to the attending medical officers?

B.

NURSES' WORK AT PRINCE ALFRED HOSPITAL.

I would respectfully urge that the nurses in training at the Prince Alfred and other large hospitals should not be looked upon as merely the paid servants of these institutions.

They are just as much students engaged in learning their future profession as are students of medicine at the University. I have never heard of any public outcry against the long hours students of medicine have to work in their curriculum, and it always appears to me ridiculous when I hear the hard work and long hours of nurses inveighed against. If a woman cannot stand the strain of the hard work and the hours necessary to gain her practical experience as a trained nurse, she is clearly unsuitable for the profession.

I felt this so strongly that before I left the hospital I suggested to my Board of Directors that nurses should no longer be paid during their course of training at the hospital, but that a few scholarships should be awarded each year to help women whose means would not allow them to go through the necessary three years' curriculum.

One practical result of such a plan would be to diminish the enormous number of applications from all sorts and conditions of women for admission to the training school, and limit them to a class more suitable because of their education and upbringing. It would also determine the annual saving of several hundreds of pounds to the hospitals, and it would clearly define the proper relation of the hospital authorities to the nursing staff.

Dr.



S. H. MacCulloch, M.B. et Ch.M., Edin., sworn and examined :—

S. H.  
MacCulloch,  
M.B. et Ch.M.,  
Ed.

2561. *Dr. Manning.*] In regard to the subject of hospital accommodation, the question as to friendly societies has come in, and we know that you can give us some information in reference to the working of friendly societies? Yes.

2562. You have been medical officer for friendly societies for a good many years? Yes; about sixteen years.

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2563. Which of the Friendly Societies have you had to do with? Chiefly the Oddfellows and the Protestant Alliance.

2564. What is the system on which they pay their medical officers? They pay their medical officers so much a year. The lodge is advertised, and the medical officer contracts with the lodge for so much a year. It has been regulated by the number of men applying, lodges having a tendency to take the lowest tender, but many of them are willing to pay a fairly good fee for a man they like.

2565. What is about the scale of fees paid to the medical officer? From about 5s. to £1 per annum per member. Where the 5s. comes in is in the amalgamated lodges. A number of societies amalgamate together and pay the doctor a salary. Three thousand members, say, pay £1,000 a year to four doctors. That is not much more than 5s. per member. Each member has a wife and family, so that you can see what in the amalgamated societies a doctor has to do. If you reckon that there are three in each family, that makes 9,000 individuals for four doctors to attend to. The average rate of pay is 16s. per member per annum. That is the lowest that most doctors will take. Very few of the societies in Sydney pay £1. None that I know of pay more than £1. The greater part pay 16s., except in the case of the amalgamated societies.

2566. What is paid to the chemist? From 1s. 6d. to 2s. per quarter. I do not know what the chemist gets from the amalgamated societies.

2567. Amalgamated societies pay their chemists salaries, do they not? Yes.

2568. For that sum can anything like good drugs be supplied? I do not think they could for 2s. per member per quarter. It would be difficult to answer that question.

2569. There is a danger when expensive drugs are ordered that something else will be substituted by the chemist? Yes.

2570. Quinine being ordered, the bottle may be filled with quassia or other bitters? Yes.

2571. What are the objections to the benefit societies from a medical point of view? That the subscriptions to friendly societies are diverted into other channels than those for which they were originally intended. All these friendly societies are intended to provide medical benefits. They are nothing but medical benefit societies, and the objection is that the contributions are used for other things—expenses in management and so on. A working man pays his society £3 a year, and out of that the medical man gets 16s., the chemist 8s., and the rest goes in other ways.

2572. But they have some other objects than sick aid? Yes.

2573. The members of these societies comprise a very large section of the community? Yes.

2574. To what class do the members belong for the most part? To all classes. The rich take advantage of the societies, but the bulk of the members are working men.

2575. There is no wage limit whatever? None whatever. A wealthy man can be a member of one of these societies if he will subscribe. I think these societies are absolutely necessary for the working classes. No man with a salary of £3 a week and a family of five persons can afford to pay medical fees, and there is nothing between the hospital and the payment of high medical fees except these Friendly Societies.

2576. It is necessary that a candidate for membership of one of these societies must be examined as to the state of his health? Yes.

2577. There must be a very large class not able to pass the examination, being already damaged in constitution? Yes; but some are allowed to get in, and that is the fault of my own profession. The reason of that is that a struggling medical man has to take so many of these societies to eke out a living; consequently, he looks upon any candidate for membership as a person bringing more income and lets him in. That is the reason why there is so much hard work in connection with these societies.

2578. The examination is not a very strict one? As a rule, it is not.

2579. But apart from that, there must be a large class who cannot join, partly because they cannot pay, and partly because they are damaged in constitution and cannot pass? Yes; in my own societies I reject many of certain trades. For instance, I never admit plumbers and painters, because after ten or twelve years they come on the society. All these trades are kept out of my societies.

2580. There are no free dispensaries in Sydney to deal with improvident classes, and those who cannot get into a society? No.

2581. Do you think such an institution is wanted? I think that under proper supervision it should be a good thing.

2582. You think it would prevent people from seeking hospital relief, either as in or out patients? I think it would. The system obtains in Edinburgh to a large extent.

2583. And in most English towns? Yes; but very much in Edinburgh.

2584. In connection with the dispensaries, patients are attended at their own homes? Yes; the dispensary is attached to the University in Edinburgh. There is a medical man for each dispensary, and there are dispensers, and a certain number of fourth and fifth year students take outdoor practice in connection with the dispensary. When a person is ill, a student is sent, and he orders medicine, which is given at the dispensary. If the student is not able to diagnose a case, he calls in the honorary medical officer.

2585. There much is done at a very little expense? Yes.

2586. And at a great saving of the hospital beds? Yes, a very great saving.

S. T. Knaggs, M.D., sworn and examined.

2587. *Dr. Manning.*] In connection with this hospital question the subject of medical attendance by and through the friendly societies has cropped up. You have had a very large experience of these friendly societies,—can you tell us the system under which they are conducted, and what is your opinion of them generally? Yes. My experience in connection with them was from 1870 to 1884, and principally amongst miners. I can only give you information on the medical aspect of the matter. The object of forming these lodges was to provide medical attendance for the members and their wives and families, and also some provision in case of sickness or accident. They used to pay for medical attendance and medicine 6s. 6d.

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S. T. Knaggs, a quarter or 26s. a year. The medical man was supplied with a list of all the members, and the Society only paid for those whose names were on the list. No man was allowed to join a lodge unless he and his wife underwent a medical examination to see that they were in perfectly sound health. It seemed to work very well, but the system was very often abused by people being in the lodges who had private means and who were well able to pay for medical advice. On inquiry, however, I found that those people had joined lodges in previous years when they were poor, and they were loth to leave them.

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2588. Was there any wage limit in any of those lodges? There was no special rule, but when I found that a candidate had means and could pay, I used to see the Chairman and expostulate with him, and they generally met my wishes.

2589. The members, then, for the most part, belong to the labouring classes? They consist principally of the labouring classes, artisans, and small shopkeepers.

2590. So far as those classes were concerned the societies were very beneficial? They were. People who would otherwise have to be put into a hospital were attended at their own homes and nurses were provided if necessary.

2591. What were the chemists paid? We had no arrangements with chemists. I had my own compounders and used to compound the medicines with their assistance. I may say that I had a very large practice, the number of members of my lodge being 1,200. I had two qualified assistants and two compounders.

2592. And a very large income? Fifteen hundred pounds a year from lodges alone.

2593. In cases where the chemists have a fixed sum for supplying medicine, do you think the medicine supplied is always what is ordered? I have no knowledge of that, and I should not like to throw any reflections on the chemists, but there is a great temptation with regard to that. When a medical man supplies his own medicines, it is to his interest to cure as quickly as possible, and he will give the best medicine for the purpose.

2594. There is a temptation to substitute other drugs for those that are prescribed? Yes, to substitute such things as an infusion of quassia for quinine, and to resort to other little dodges.

2595. There is some system now of private clubs—how is that worked? I may mention how it arose. When I left Newcastle, the gentlemen who succeeded me did not get on very well with the clubs, and the clubs advertised for two medical men. I believe they also ran what was called a medical institute on cheaper lines. They paid about £750 for the same work that I and my assistants did for £1,500 a year. To remedy this, the medical men in the town started what they called private club lists. They opened lists which previous members of any club might join by paying the usual 6s. 6d. a quarter.

2596. They distinguished between their own ordinary private patients and former club patients by putting them on a certain list and charging them smaller fees? Yes.

2597. You have a considerable knowledge of the out-patients' department of the hospital? I have.

2598. Can you tell us how it would be advisable to restrict the increasing number of out-patients? Do you mean patients who apply for out-door relief and who have means to pay?

2599. Patients of all kinds. Is there any way of restricting the increase? I think there should be certain officers appointed to make inquiries as to whether the patients are suitable subjects for charitable relief.

2600. Do you think it would be possible to restrict the number of out-patients by requiring them to bring a letter from a medical practitioner? I know that in several institutions that is done. I am a life member of St. Vincent's Hospital, and they always respect any letter that I send; but I generally write "This patient is without sufficient means to pay for medicine or advice, and I request you to afford out-door relief."

2601. You think that medical men, as a rule, would not object to give letters like that? I think not; I think they would be very pleased. I know that what occurs at present is a very great hardship. You take a great deal of trouble with a patient; you prescribe, and you find out afterwards that he has not means to pay for medicine, and all your trouble goes for nothing. It is best to have some reliable person to give a letter. You need not restrict it to medical men—clergymen very often have more knowledge of the means of patients than even medical men have.

2602. According to the evidence given to us, letters given by others than medical practitioners are not of much service; what is your experience as regards that? It greatly depends on who gives the letter. I think you can place reliance on a clergyman's letter of recommendation.

2603. As regards the poverty, possibly, but not as regards the medical need? No.

2604. Do you think there is a necessity in Sydney for a free dispensary on the lines of the dispensaries in the old country;—do you think that it would prevent a number of people from going to the hospital who at present have to be sent there? I always thought that the out-patients' department of the hospital would attend people at their homes. If you establish a free dispensary you will want to have a regular outfit there and appliances for dressing wounds.

2605. Patients are not attended at their own homes from any of the present hospitals? You mean a kind of bureau where medical men could always be called on?

2606. I mean a dispensary at which patients could attend as out-patients, and from which, in case of illness, they could be attended at their own homes? I think it would be of great service.

2607. And it would prevent people from going to the hospitals who are now obliged to go there? Yes; if people could have free medical attendance at their own homes many would much rather not go into a hospital.

2608. Are there not a large class who are not and cannot be members of clubs? There are, and they are really the people who most need medical advice, as they are excluded from the clubs owing to their having a tendency to bad health.

*Note by Dr. Knaggs on revision of evidence.*

With regard to your project of having a free dispensary for such patients as are unable to pay for advice and medicine, I cordially agree with it, and think the idea an excellent one, which will greatly contribute towards relieving the hospitals of having patients sent to them who could be treated at their own homes. As a rule, I find patients do not wish to enter an hospital, but their inability to pay for medicine constrains them to do so.

I think it would be very desirable to establish a dispensary in some central part of the city, with two qualified medical men, a dispenser, and a married couple, to look after them. Possibly two graduates of Sydney University might be engaged on the same terms annually that they receive from the local hospitals.

A superintendent (say, some senior member of the profession having experience of dispensary and club practice) might be appointed to supervise, and be ready for consultation in serious cases.

THURSDAY, 29 JUNE, 1899.

[The Commission met at the Offices of the Public Service Board, at 3 o'clock p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).	
F. N. MANNING, Esq., M.D.	J. BARLING, Esq., J.P.
J. POWELL, Esq., J.P.	CRITCHETT WALKER, Esq., C.M.G.

Hon. C. K. Mackellar, M.B., Ch.M., Glas., M.L.C., sworn and examined:—

2609. *Dr. Manning.*] You were for some years Medical Adviser to the Government? Yes, I was.  
 2610. And you are at present, and have been, one of the honorary physicians to the Sydney Hospital? I was for some years one of the honorary surgeons, and subsequently I was one of the honorary physicians.  
 2611. And you are now a director, appointed by the Government, at both the Sydney and the Prince Alfred Hospitals? I am.

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2612. So that you had a very large experience of hospital administration? Considerable.  
 2613. You know the Coast Hospital very well? Yes; I had that under my control for some time.  
 2614. Have you seen it lately? Not within the last two or three years.  
 2615. Since that time I may inform you that there have been considerable additions and alterations;—a complete system of sewage and some permanent buildings for laundry and other purposes have been erected;—we have the evidence of the Government Architect to the effect that the old buildings have further life in them of some fifteen years, and the new buildings will last for thirty years or perhaps more;—under these circumstances we wish advice as regards the best use to which the Hospital could be put;—do you think it suitable for cases of infectious disease? It certainly is unsuitable for certain infectious diseases. It is, to my mind, entirely unsuitable for the treatment, for instance, of typhoid fever. Whilst I had the administration of the Hospital numerous cases of typhoid fever were treated there, and I found that the long distance that it was situated from the town was decidedly prejudicial to such cases, unless in the very early stages, or where the disease had manifested itself in a very mild form; and, in consequence, I, at that time, formulated a certificate which I required medical men to sign before sending patients to the Coast Hospital suffering from that disease. I believe that that certificate is still used, though it is twelve or fourteen years since I framed it. If my memory serves me right, it was to the effect that not alone was the patient a suitable patient, but that he was not in any way likely to be prejudiced by the journey, because I perfectly satisfied myself that patients were prejudiced by the journey; and I wrote a memorandum and submitted it to the Government, along with certain other papers, on the same subject. I have not been able to lay my hand on all the minutes that I wrote, but I have got one or two of them here which I might let you have. This document here which bears the date 9th March, 1883, was addressed by me, I presume, to Mr. Critchett Walker, and will show you what my views were on this subject at that time. Apparently, there had been a deputation waiting upon the Colonial Secretary in regard to this subject, and I say here:—

A perusal of the attached correspondence will show that the deputation which waited upon the Colonial Secretary on the 30th ultimo, and some of the general public, have taken an erroneous view of the intentions of the Government with regard to the reception and treatment of patients at the Coast Hospital. Several persons suffering from typhoid fever in the acute stage have been sent from the Prince Alfred Hospital, and one very bad case from the city by a medical practitioner, and, although no dangerous consequences have as yet arisen from this practice, yet I cannot advise the Government to allow it to be continued, for, in my opinion, some very serious result may reasonably be expected where persons, in the critical period of one of the most serious fevers to which the human race is liable, are driven over a rough road for a distance of upwards of 10 miles. My experience in the mother country showed me that too much importance cannot be attached to this question of the transit of patients, and although I fully realise the vast importance of the isolation and separate treatment of fever cases, yet I cannot advise so risky an experiment as their consignment to Little Bay, until the tramway, which was at one time in contemplation, is constructed.

I may say that at that time a tramway was contemplated from the Botany terminus to Bare Island, with a branch tramway to the Coast Hospital.

Should the Government see fit to carry out this work I think that great advantage would accrue to the health of the city and suburbs of Sydney from the establishment at the Coast Hospital of wards not only for typhoid, but also for measles and scarlet fever, and, moreover, I would observe that such a proceeding might be carried out without interfering with the efficiency of the Small-pox Hospital in any material degree. I am continually receiving letters from institutions, as well as private individuals, asking that fever patients may be accommodated at a hospital, and there can be no doubt that the request is a reasonable one.

The distance, in a straight line from the present tram terminus at Botany to the Sanatorium at Little Bay, is less than 2 miles, and over a series of low sand hills, which, I should imagine, would offer no great difficulty to the construction of the line.

Well, I contemplated this, that the institution should be used as a sort of sanatorium, using the word "sanatorium" in its broadest sense—a place for the treatment of the milder cases of typhoid fever, scarlet fever, and so on. Not that I thought that it was by any means the best place, for I do not think it is, but it was the best place available, and the Government had the buildings already erected. I recommended the Government at that time to have a general fever hospital somewhere in the vicinity of the University paddocks, somewhere between Newtown Road, Parramatta Road, and Annandale, as I considered that that was the centre of the district from which we might reasonably expect to get most cases that needed such treatment, and I hold to that opinion now, that if it be possible to secure a suitable site in that locality, there the general fever hospital should be built. I do not think any objection whatever would accrue to the neighbourhood from the cases being taken there. As to the Coast Hospital, I think that it will be quite suitable, that is to say, as a makeshift, for the treatment of the milder cases of fever and for many convalescents. It is totally unsuitable for cases of tuberculosis of the chest, and perhaps equally unsuitable for cases of rheumatic diathesis. In my experience, and I may say that while I had charge of this institution we had as many as 200 patients there under treatment at a time, cases of that kind did badly there, did very poorly, but still there were many chronic and convalescent cases that did very well there.

2616. Subject to the certificate of which you have spoken, and to the regulations which you made and which have been continued ever since, typhoid fever has been treated at the Coast Hospital with a large amount of success? Oh, a large amount of success. I think you know that the success is very largely due to the fact that I rigidly, at that time, and my successors, I believe, have equally rigidly held the medical

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medical men to that certificate, and the medical men have been so frightened that harm might come that they have only sent the very mildest cases there. Of course, the amount of success that has attended the treatment of typhoid cases at the Coast Hospital is quite phenomenal, extraordinary. Proportionately unfavourable results in some of the metropolitan hospitals have been commented on, but really, in point of fact, they have had all the bad cases and the Coast Hospital has had all the good ones.

2617. Then you think that with a tramway the facilities for the treatment of patients at the Coast Hospital would be very much increased? Yes, but still I might point out here that there are difficulties in regard to the tramways, because the tram cannot take a patient from his own house. It can only take him from the main line. The patient has first to be carried to the tram, which may be a distance of some miles, so that there is a difficulty there, but it would minimise the danger certainly.

2618. But given a proper depôt and a tram starting from that depôt? At a definite time.

2619. Say once or twice a day, and with properly arranged carriages, the patients could be shifted from the ambulance in which they were brought and taken out to the Coast Hospital very much more easily by the tram than if they were taken all the way by the ambulance? Undoubtedly.

2620. And there would be no objection to the transport of cases of scarlet fever and measles, so long as their condition was not a dangerous one, by the same method? No objection whatever.

2621. So that, in the absence of other buildings, there would be no objection to making the Coast Hospital into an infectious diseases hospital to that extent? None whatever.

2622. In regard to Lock cases, there is some difficulty as regards the accommodation; the male patients are treated at the Coast Hospital. Do you see any objection to treating the females patients there also if they were properly fenced in and placed under proper supervision? Yes; I think it is entirely unsuitable. On this question I also addressed some years ago a memorandum to the Principal Under Secretary, which I have been able to get from the records of the Board of Health, and it is here:—

January, 1883. The fact that venereal disease exists to an alarming extent in all classes of the community no one can doubt, nor is there any question that the hospital accommodation at present available for its treatment entirely fails to exert any marked influence in lessening the number of those affected. This failure is due to a variety of causes, but I believe that it is chiefly owing to the exceedingly scanty accommodation afforded by the hospitals of this city for the treatment of such ailments.

I have the authority of Mr. Fosbery, the Inspector-General of Police, for saying that there are about three hundred (300) women in Sydney who live wholly by prostitution—that is to say, known to the police—and I think I may safely estimate the number of those who occasionally supplement their earnings by the same mode of life at fully double the number, so that we have a total of (900) nine hundred women very likely to acquire and disseminate the disease.

One of the Secretaries of the Association for Promoting the Extension of the Contagious Diseases Act of 1866 to the Civil Population of the United Kingdom says that the proportion of diseased to healthy prostitutes in London is one in three, whilst Mr. Simon, F.R.C.S., the late Medical Advisor to the Privy Council, in a recent paper upon prostitution, deemed the proportion of diseased women to be one in six. If we adopt the latter estimate we have one hundred and fifty (150) women constantly affected, while for their treatment at the present time there are in Sydney Hospital only ten beds available, and none at either the Prince Alfred or St. Vincent's Hospitals.

The Secretary of the Sydney Hospital informs me that the Lock Ward is always full, and that females are frequently treated as out-patients, both for gonorrhœa and syphilis, whilst males with gonorrhœa are, as a rule, not admitted to the hospital, but treated as Dispensary patients. It is clear, therefore, that a very much larger accommodation for the treatment of the disease is absolutely necessary; but, in my opinion, merely increasing the number of female lock beds in the general hospital would not meet the difficulty, as those institutions afford no special facilities for the treatment of these cases; and, further, a considerable amount of publicity, which is very much objected to by such persons, is unavoidable in their treatment in a general hospital. Under these circumstances it is not surprising that both syphilis and gonorrhœa are rapidly disseminated throughout the community.

It is in vain to expect that a woman of the town will at once desist from prostitution on being infected with venereal disease. She is usually totally destitute of means wherewith to pay for her maintenance and treatment whilst ill, and, as a natural consequence, continues to practise her calling much to the detriment of her own health, and with destructive results to the general community.

I have given much careful consideration to this subject, and am forced to the conclusion that State interference in some way is absolutely necessary, either by police supervision and medical inspection, which, however, is objected to by a large portion of the community on both moral, constitutional, and even medical grounds, or the establishment of Lock Hospitals, where diseased women could readily, without charge, and with a reasonable amount of privacy, obtain the most skilful treatment—not subject to the supervision of the police. I desire to give my emphatic opinion that the latter course is in every way the more desirable.

I would recommend that a special institution, wholly under Government supervision, should be opened for the treatment of females suffering from venereal disease; that in it every facility should be offered for the ready and skilful treatment of such disorders, and, although I fully recognise the difficulty likely to be encountered in administering such an institution, I would nevertheless recommend that it should be on the voluntary principle, and that the inmates should be free from police supervision and subject only to the regulations under which all public hospitals are governed.

I might have added there that not only should they be free from police supervision, but from the supervision of meddling busy bodies who are trying to reform them, who are just as harmful as the police in meddling with such cases, and who, I have no doubt, prevent these women availing themselves of the general hospitals, and would equally prevent them availing themselves of the treatment of this hospital.

Institutions of the kind suggested have been created in some districts of the United Kingdom, notably in Glasgow, where their establishment has been attended with a large amount of good.

As regards the treatment of the male portion of the community, I think the present arrangements in the general hospitals are quite adequate, and that all that is required is that a larger number of beds should be allotted to venereal disease. I do not think that any good result would follow their treatment in a special institution.

Following on this minute the Colonial Secretary of the day caused a large sum of money, some £5,000 or £7,000, to be placed on the Estimates, and I was directed to choose a site, which I did at Miller's Point, a building which is now used as an eye hospital, and the Government resolved to take this building for the purpose I have indicated; but, some short time after that, some persons interested in the neighbourhood, together with some clergymen, waited upon the Colonial Secretary as a deputation, and they tried to show him that it was wrong to have such an institution, and that it should certainly not be in the city, that it ought to be clear away from the city, and so on, and meantime the vote lapsed.

2623. Then your objection to the treatment of the women at Little Bay is rather that they would have to go a long distance, than from any difficulty that would arise in separating them from the male patients? Well, there would be very great difficulty in separating them from the male patients there. I do not think it would be a desirable thing to put the women there under any circumstances, but I think that the distance would be a very great objection. An institution such as that should be in such a situation that those persons who are affected could readily obtain access without any trouble. It is so very much in the interest of the general public that they should be relieved of their ailments. 2624.

2624. As a Director of the Sydney Hospital, you will be able to tell us something about the Dispensary in Regent-street. Do you think that is performing any useful work, or that it should be continued? I do not think so. I was a member of a committee on this subject some years ago which drew up a report and recommended that it should be abolished, chiefly on the grounds that a dispensary was not necessary—a dispensary for the treatment of disease was not necessary under the circumstances—and I still hold to that view. The majority of the patients that attend that dispensary would be very much better off with, say, a basin of beef-tea and a bath, for instance, than anything else. That is the class of patient that goes there—they want to be cleaned and they want to be fed. I think the majority are fit patients for a benevolent asylum, but not for a hospital dispensary at all.

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2625. You think that, as at present situated, the Institution is really doing no good? Not any adequate good to the payment made for it.

2626. And do not you think that if a separate free dispensary was established from which patients could be visited at their own homes, and in which students under the charge of a competent medical man could get their midwifery done, and also assist to visit these patients, it would be a very useful institution? I think that it would.

2627. You think that would meet a want that exists? I think that is a want that exists in all large towns where there are poor people.

2628. Now, as regards Moorcliff—this place has grown into a very large institution; do you think it is really necessary? Well, I think that it is very necessary that there should be an eye hospital, and I think that Moorcliff serves very well as an eye hospital, but if a wing of the general hospital were devoted to the same purpose it would serve equally well, and probably would be administered somewhat cheaper.

2629. So that you think that the eye cases could be treated quite as well in, say, a new ward in the Prince Alfred Hospital as they can where they are at present? I have no doubt of it.

2630-1. It has come to the knowledge of the Board that a very large number of these cases are cases of granular lids and chronic cases; could not they be treated in a ward in a sick asylum directly under Government management? Well, I just recollect now that about ten or twelve years ago, about the time that I wrote those memoranda that I have just read to the Commission, I wrote some memoranda on this subject, and made a recommendation to the Principal Under Secretary, that these chronic cases should be treated in the hospitals at Parramatta, the Government Asylums, and, in accordance with my recommendation, they were treated there. A special ophthalmic surgeon was appointed by the Government to visit Parramatta and the other Government Institutions at stated intervals—Dr. Cecil Morgan—and he was ophthalmic surgeon to the Sydney Hospital; and for some years Dr. Morgan carried out that work, and great relief to the Eye Hospital was obtained by those means, and, I have no doubt, that the patients were equally well treated. Subsequently, Dr. Rowling, who had in the meantime specially studied eye diseases, undertook the treatment on Dr. Morgan's retirement, and I did not know that the arrangement had fallen through. But certainly the chronic cases of eye disease might be perfectly well treated elsewhere. There is no occasion for keeping up an expensive hospital for their treatment.

2632. There is no occasion for their being paid for at the rate of 3s. a day? No; but at the same time I would say this, that chronic cases of eye disease need some better food than ordinary paupers.

2633. But they could be maintained at less than that rate? I do not doubt that.

2634. It is stated that they cost about 13s. a week in Moorcliff, but the Government pays about 21s. a week for them? Yes.

2635. Do you think the hospital accommodation of Sydney sufficient at the present time? Yes; I think it is just about sufficient. Of course as the population increases so the number of beds that will be necessary will increase. I would not advocate that it should be largely increased just now, because, if it were 50 per cent. greater, I have no doubt that the hospitals would still be filled; but I not know that it is necessary that so many persons should be accommodated as would endeavour to obtain admission.

2636. Would you give us your views as regards the pay system in the hospitals—the system under which the hospital directorate receive payment from the patients themselves? Well, I have always been very strongly opposed to it. I think that it is a most pernicious system, and I have always advocated that the only method by which patients should obtain admission should be by showing that they are in a necessitous condition, and that they are eligible from a medical point of view. I do not think that any rights should be given to admit persons to a hospital to any persons who subscribe, nor should patients be required to pay 2s., 3s., or 4s. a week, as the case may be, as they are in the general hospitals now; because that induces a large number of persons to avail themselves of the hospital who otherwise would not do it, and who might very well do without it, perhaps, as these persons go away with the idea that they are paying for their treatment, when they are not even paying for the food that they eat, independently of their treatment or of the general expenses to which the Government is put in the erection of the hospital or its administration.

2637. I see that you object to payments of all kinds, not only small sums, but you would object more to the payment of large ones? I object to that altogether. I am perfectly certain that it saps the fountain of benevolence on the part of the general public. That is one of the reasons why the general public subscribe so little. This system destroys the benevolent idea altogether.

2638. Do you think that by taking in these paying patients, the more necessitous class are excluded? Well, I think it quite possible they may be.

2639. That would be the case where there was a rather scant supply of beds? Oh, certainly it would, and the temptation to the officer who is administering the institution would be too great. He knows the necessities of the institution, and if a number of patients apply who can pay something, and others apply who are not capable of paying anything, I think that, unless he could get them in as Government patients, for whom he would get a guinea a week, he would be very apt to favour those who paid something for their admission.

2640. Especially if he was paid 2½ per cent. himself for all the collections he could get from the patients? Well, I would be surprised if I heard such a thing was possible, but I should say it would be very likely.

2641. But there must be a good many people who need hospital accommodation, and are able to pay 5s. or 10s. a week;—what would you do with that class? I would admit them without payment at all in preference to letting them pay the 5s. a week, even although willing. A person who can pay but 5s. a week is in what I would call a necessitous condition, and I would scarcely think it advisable to drag 5s. a week out of him.

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2642. And you would exclude altogether people who can pay 15s. or 20s.? I would require them to go to a private hospital; and though at the present time there is no private hospital in Sydney which could accommodate patients who could pay such a fee as that, I have no doubt that such an institution would be established if the necessity for it arose.
2643. Do you approve of the system of payment of a shilling for the registration of out-patients? I do not.
2644. It is done at the Sydney Hospital? I know it is done, but I have never approved of it. I do not approve of any patient giving anything to the hospital if he is in a necessitous condition, and if he is able to pay no more than a shilling he is in a necessitous condition.
2645. Do you object to donations from the hospital patients, either in or out-patients? No, certainly not; I think that is very desirable. It is very desirable that they should be allowed to give if they please, but that they should be required to give so much on registration, or for each week of treatment, is undesirable. I am aware that this system of registration and re-registration is in vogue in London at the present time, and is strongly advocated by some persons who know a great deal about the hospitals, but I have never seen any arguments that have induced me to change my views on this subject.
2646. Do you know anything of the private hospitals? Very little.
2647. Do you think that they ought to be subject to any registration or inspection? I think they should, certainly. I think that is an absolute necessity with all private hospitals. I do not think that in Sydney any harm particularly has arisen from the establishment of such institutions, but we know that very great harm has arisen in other places, in London, for instance, from the establishment of institutions ostensibly for the purpose of private treatment.
2648. *Mr. Walker.*] There is no law under which they can be brought? I think not.
2649. There would have to be a special Act passed to deal with them? Yes.
2650. *Dr. Manning.*] In the Melbourne Health Act there is a special clause dealing with private hospitals, providing that they shall be registered under the Board of Health? I think that is a very desirable thing.
2651. *Mr. Barling.*] With regard to Lock Hospitals, have you, in recent years, given your attention to this subject;—are you aware of the present state of affairs in this respect? No, I am not. When I wrote that memorandum I was in the position of Medical Adviser to the Government, and then it was part of my duty. I have not kept up my information on that point.
2652. I think you would still recommend the establishment of a Lock Hospital somewhere within convenient access of Sydney? Yes.
2653. And you do not recommend a Contagious Diseases Act, but rather that it should be voluntary on the part of the unfortunate females to go to such an institution? Yes; those are my sentiments. I may say that some years ago I carried a resolution, strange to say, in the British Medical Association, against the Contagious Diseases Acts, not because theoretically they were wrong—for theoretically they are unassailable precisely as the theory of absolute freetrade is unassailable—but practically they are wrong.
2654. You would not be surprised to hear, then, that in the evidence we have received from two highly competent gentlemen on this subject, viz., Dr. Paton, the Government Medical Officer, and Dr. McClelland of the Sydney Hospital, the former says that at the present we have practically an epidemic of venereal disease, while the latter gives similar evidence and adds that one-sixth of the whole of the out-patients at the Sydney Hospital come under the class of persons suffering from venereal diseases; this would show that the views you held some years ago should be accentuated at the present time? Probably.
2655. From that evidence? Yes. I may say that in the Benevolent Asylum, where a large number of children are born and maintained in the early period of their lives, the number of those suffering from syphilitic disease of the eyes is simply horrifying. I went through that institution some couple of years ago, and I would almost say that the majority of the children then were suffering from affections of the eyes, which I judged to be inherited syphilis, and that is one of the most shocking aspects of the whole question. These children inherited this disease.
2656. All these facts show that it is a question which should be faced with seriousness at the present time? I do not doubt it.
2657. It has become a very urgent question? I would like to emphatically say that the institution which is designed to treat women should be separated from any other institution, and it should be made as easily accessible as is possible—that it should be absolutely private, and that there should be no police supervision whatever.
2658. *Mr. Wilson.*] They should be encouraged to take advantage of it, not compelled? Well, I satisfied myself at the time that they would take advantage of it. I took a great deal of trouble before writing that memorandum to satisfy myself that what these people objected to and the reason they did not go for treatment was because of their being overlooked, as it were, by servants of the institution and by the visitors to the general hospital, and I have no doubt that the desire of certain very well-meaning persons to reform them also interfered somewhat with their willingness to go to an institution of that sort.
2659. *Mr. Barling.*] Some years ago, Dr. Mackellar, the then Colonial Secretary, afterwards Sir Alexander Stuart, put certain questions to you. One of them was as to the desirability of having a general Hospital Board. In your reply, which was dated the 22nd August, 1883, you made these remarks: "The custom of granting Government aid to metropolitan hospitals, which are wholly unconnected with each other and governed by totally distinct Boards, is also in my opinion fallacious, and calculated to be followed by extravagant expenditure, because of the rivalry which is almost certain to be engendered, and which in itself would, under other circumstances, give a healthy and perhaps beneficial tone to the management. The establishment of a General Metropolitan Hospital Board would obviate this danger, and, moreover, would be conducive to economical management of the whole, as it would afford facility for entering into larger and more favourable contracts for the supply of provisions and hospital necessaries." We shall be glad to have your views on that subject now, whether they have undergone any modification or whether they have strengthened? My views have undergone no modification whatever. I have not the slightest doubt that all that I said at that time is correct. Whether it would be advisable to have a general Hospital Board is a totally different question. I may say that this tendency for hospitals—rival hospitals, if I may use the term—to go into extravagant management has been very clearly shown in Sydney some years ago. The day after my appointment by the Government to the Board of the Sydney Hospital my attention was drawn to the extraordinary

extraordinary increase of expenditure which had gone on during the previous three or four years, and I moved for a committee to inquire into it, and acted as chairman of the committee. The committee investigated the matter, and presented a report to the Board upon the subject, recommending changes which ought to be made immediately, and which would, in our opinion, not in any way detract from the efficiency of the hospital, and which would involve a saving of several thousands of pounds: to name a minimum, we said £1,200. The changes were made, and the following year £3,000 was saved, and the same number of patients treated with equal success; in point of fact, as it happened—which is, of course, only a coincidence—the success was greater. The mortality was much less the following year; but that did not bear on the question at all. Well, that extravagance goes on in all hospitals. In that hospital where I received my education, the surgeons receive a notice once a week, which is handed to them on their entering the hospital to tell them what the cost has been in their wards for stimulants, because the use of alcoholic liquors is one of the readiest means of getting rid of a large amount of money. Some hospitals manage to treat their patients at a cost of 5s. per annum per bed; other institutions in England cost £2—I think it is as much as £2 10s.—per bed.

Hon. C. K.  
Mackellar,  
M.B., Ch.M.,  
Glas., M.L.C.  
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2660. *Dr. Manning.*] For stimulants? I know one of them spends £2 1s. 6d., and I think some of them even more than that.

2661. *Mr. Barling.*] Do you think the Government should have better supervision over the charitable institutions—more especially in respect of hospitals—than they have now? Well, I am one of the representatives of the Government on the Board of both the hospitals, and, therefore, I, perhaps, may be allowed to say that the method, of which I am one of the representatives myself, is an exceedingly bad one, and very little supervision—that is to say, from the Government point of view—is exercised by myself or by the gentlemen who are in a similar position to me on the Boards. I think I may say that I have sometimes, in past years, asserted a little more authority, on the ground that I was appointed by the Government, and I have found that it was not at all well received by the other directors of the institution who were not similarly appointed.

2662. What remedy would you propose for this state of affairs? I have not thought the matter sufficiently out to suggest a remedy, but that some supervision more than is at present exercised is necessary I am quite sure.

2663. Do you think, Dr. Mackellar, that it would be a good idea for the Government to appoint a Board which shall supervise all the expenditure in connection with the Government aid to charitable institutions;—do you think that would have a good effect? Well, I do not know that the appointment of a Board specially would be necessary. If there were a Government officer whose duty it was from time to time to report upon all such institutions —

2664. *Mr. Walker.*] The Colonial Secretary is the Inspector of Charities now by law; he can depute his powers to anybody? Yes. We had many years ago a gentleman who held the title of Inspector of Public Charities, but his supervision was certainly not more efficient than that of the Government members of the Board, I think, perhaps, even less effective. Perhaps that was because the gentleman might not have been quite suitable for the office.

2665. *Dr. Manning.*] Do you think that operations should be carried out at the Coast Hospital? No, I do not. Operations necessitate a very much larger expenditure per patient than would be necessary in the treatment of ordinary diseases, and much closer supervision. On the whole I do not think it would be at all desirable. They should be left to the large general hospitals. Of course it should be recognised that, in leaving the operations to the large general hospitals, you are increasing the expenditure per bed very much of the general hospitals. The cost of modern surgical appliances is very great, enormous in fact, and therefore, it must be recognised that the general hospitals will be more expensive, but I think that the patients would be very much more likely to obtain thoroughly efficient surgical treatment in the general hospitals than they could possibly obtain there.

2666. There would be more effective supervision in those hospitals by the outside medical men, and by students, than you could have at the Coast? Undoubtedly. Things might occur, even in a very well-managed institution, if they were not under the exceedingly critical eye of the whole of the medical profession, as well as the, perhaps, still more critical eye of the medical students, which would be very unlikely to occur in a metropolitan hospital. I should say that that is one of the safeguards to the patient. A bungling surgeon cannot have a very long life in a large metropolitan hospital, because his deficiencies are so exceedingly apparent and so very freely commented on.

2667. Can you give us any way by which the number of out-patients attending at these hospitals can be restricted? Yes. I think that a ticket for treatment at the hospital should last only for a definite time, and that a special examination should be made of the individual, and he should be reported upon when his ticket expired. It is notorious that some patients go on at these out-door dispensaries for years.

2668. That is, the out-door departments of hospitals? Yes. Whether they take the medicines prescribed for them or not is a question I could not answer, but enormous quantities of medicine are given to these people and taken away from the hospital at a very great cost to the institution.

2669. Would it do to insist upon all people who are admitted as out patients bringing with them a note from a medical man? I do not understand you.

2670. Would it do to insist, as a qualification for treatment at the out-patient department, that the people should bring a letter from a medical practitioner recommending them for treatment? That would be an exceedingly good method if it were possible to carry it out; but I do not see very well that that could be carried out. It would be difficult to obtain a certificate in some cases.

2671. Do you think it would do to adopt the system which is adopted in some London Hospitals now, to limit the number of persons to, say, twenty each day, taking the more important cases, and turning the others away? Yes; that would be a very good thing. The treatment that it is possible to give to out-door patients is so inefficient that really the whole thing amounts to a positive farce in many cases. The out-door surgeon is asked to see and prescribe for forty or fifty cases in an afternoon, and sometimes, I think, considerably more than that, and if he were to go immediately after lunch to the institution, and remain till night, it would be only just sufficient to see the patients that pass in review before him. He cannot devote more than two or three minutes to each, and where there is any necessity for a subtle diagnosis it is quite impossible that he can make it.

2672. *Mr. Barling.*] Have you anything that you would like to say, Dr. Mackellar, apart from the questions submitted to you? No; I cannot think of anything.

FRIDAY, 14 JULY, 1899.

[The Commission met at the offices of the Public Service Board at 3:30 p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).  
 F. NORTON MANNING, Esq., M.D. | J. POWELL, Esq., J.P.  
 J. BARLING, Esq., J.P.

Robert Vandeleur Kelly, L.R.C.P., F.R.C.S., sworn and examined:—

R. V. Kelly,  
 L.R.C.P.,  
 F.R.C.S.  
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2673. *Mr. Barling.*] Will you tell us what experience you have had in hospital and dispensary work both here and in the Old Country? Yes. First of all, I had experience in Edinburgh as a student in connection with the dispensaries; afterwards in Glasgow, for six months I had complete charge of the dispensary district, and for four years I held an appointment in Ireland under the Local Government Board as medical officer of a large dispensary district; as medical officer of health and as a magistrate for the county. Then I was very nearly five years outdoor surgeon to the Sydney Hospital, during which time I came in contact to a certain extent with the same material that comes before the Hospital Admission Board—the out-patients.

2674. You have, I think, on many occasions, acted for Dr. Paton, Government Medical Officer, and consequently have had opportunities of observing the method in vogue in connection with admissions to the Government asylums and the hospitals subsidised by the Government? I have.

2675. The Commissioners will be glad if you will kindly give them the benefit of the valuable experience you have gained in connection therewith? First, I may state that I think the hospital admission system is admirable. One thing I have noticed in cases that have come before me, and that is that chronic cases come again and again. You send them to the asylums, and they go there for a few months; but after they have got out they come back again. That is one difficulty which apparently you cannot remedy as things are now. I may say that the superintendents of the hospitals in every way help the Government Medical Officer. In any urgent case they will always strain a point to accommodate them; but in spite of this I consider that there are often cases which it is very hard to know what to do with. Patients come, and there is no room in the hospital, and they are not exactly suitable for admission. They are not mild enough cases to go to Rookwood, or one of the other asylums, and, of course, sometimes the hospitals are all full, or the vacancies are not very many.

2676. Who has practically the right to decide as to admission to the hospitals on Government orders? Theoretically, the Government Medical Officer certainly—that is to say, he has the right to veto, but in practice it is very much divided between him and the superintendents of the hospital. I will explain how that happens. They have printed forms; a man brings down a printed form to the superintendent of hospitals, on which it says:—"The following case is suffering from such and such a disease. If you will order his admission we will take him in"—that is to say, they will strain a point to make room for him. Under these circumstances the Government Medical Officer could scarcely refuse to give an order, so that in that way it gives the superintendents of the hospitals a certain power. It divides the power with the Government Medical Officer. I think myself that the Government Medical Officer ought, of course, to be the chief power and authority, and so he is in theory. He can veto, and he can object. As a matter of practice the admissions lie very much with the superintendents of the hospitals. I am not saying whether that is a good thing or a bad thing.

2677. How has that right been exercised, so far as your observation goes? In this way. The vacant beds are marked on a piece of paper, which is laid before the Government Medical Officer. Suppose there were three vacancies in the surgical ward, and you have already filled them, then in comes a case with an order from a superintendent. They say, "If you will give an order we will admit this person," although there is no vacancy on the hospital sheet. Then you send it as an urgent case. I should like to explain that these are generally supposed to be outdoor cases, which are selected for operation or treatment indoors. For instance, some man is attending as an outdoor patient of the Sydney or Prince Alfred Hospital, and it is found that the patient has a tumour or an abscess, or something requiring operative proceedings. They take him in, and send to the medical officer, and say, "If you will give an order we will admit this patient." That is recognising the power of the medical officer to grant the order. Of course in nearly every case it is granted. In that way it divides the power very much between him and the superintendent of the hospital.

2678. So that, as a matter of fact, some cases are admitted, not on account of their urgency, but on account of their being favourable cases for operative surgery? We have no way of knowing whether these cases are urgent or not. We, perhaps, have not seen the patient at all, but we take him in.

2679. Although, from information given you, there is no vacancy? Yet; although according to the returns there may be no vacancy, I take it that these are cases that require operations, and it is necessary that the patient should be taken in. That is the way that the matter comes before the Government Medical Officer.

2680. Would you suggest any alteration in this procedure, and if so, what? Well, I think that as long as the Government Medical Officer and the superintendents of the hospitals pull well together as they do now, the present is as good a system as you could have, but as a matter of principle, if the relations were strained at all between them it might lead to confusion, but the hospital authorities have always hitherto been so obliging and willing to strain a point for the Government Medical Officer that I do not know that I could suggest any radical change, certainly not with the present hospital system.

2681. Do you approve of any money being demanded or taken from patients who are admitted to the hospitals? I do not approve of money being demanded from patients at all. With regard to patients giving money voluntarily, I say, of course, yes; but demanding money seems to me an iniquitous thing. I know several cases in which patients have been most harshly treated, money being demanded of them before the other patients. They are made to look foolish. No money should ever be demanded of patients, though they might try to get money from their friends and relatives outside.

2682. What course then would you recommend for adoption with regard to the people who could pay something towards the cost of hospital treatment? That could be met by dividing the hospitals so as to have one absolutely free, and another available to persons on payment of a graduated scale of charges,  
 and



and there should not only be a graduated scale of charges, but also a scale of small comforts. People who go in and pay use the same coarse cups and mugs, and have the same surroundings as those who do not pay. A person who pays 5 guineas a week has exactly the same mugs and spoons as a person who pays a few shillings a week. You cannot graduate these matters under the present system—you treat all alike. Persons who are paying 5 guineas a week like to have some extra comforts. I know a case of a girl who brought in her own tumbler and a mug for use in the hospital. If you graduate the payment you ought certainly to graduate the comforts. That certainly could be met by having a hospital in which the payments were graduated on a scale to suit the means of the persons going in, and affording comforts on a corresponding scale.

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2683. Then you would advise that we should have one hospital absolutely free, and another hospital as the requirements of Sydney may demand, at which a graduated scale of fees may be charged? Certainly; one hospital to be absolutely free, and known to be so.

2684. So that it would be understood that persons who went there would be persons absolutely unable to pay anything? Quite so. With regard to the working out of the pay system that is only a question of working out details; but one hospital should be absolutely free.

2685. Are you aware that the cost of accommodation and treatment in a private hospital is far beyond the means of a large section of the community, who yet could pay something towards their expenses while under hospital treatment? Yes, the charges are very high, and people cannot afford to pay them.

2686. And therefore it shows the necessity of having a medium class hospital, such as you have suggested? Quite so. They have no choice between that and going into the hospital.

2687. And as a result, from the want of this, private charity is much abused? Yes, very much.

2688. Can you give any instance of abuse of hospital benefits—that is, of people going into hospitals who have the means to pay? No case has come under my own immediate observation, but I have heard of cases from other people.

2689. Then the remedy that you suggest of having a second-class hospital would meet the case? Yes.

2690. The statement has been made that, by reason of their high charges, the doctors themselves are partly responsible for abuses of the hospital system; do you think there is anything in that contention? Yes, I think there is. I think that young and inexperienced doctors, when starting, have a hard-and-fast idea with regard to fees. I do not think that sort of thing exists amongst doctors who have been practising for any considerable time. Experience has compelled them to graduate their fees.

2691. Has it come under your notice that the benefits afforded by friendly societies are taken advantage of by the well-to-do classes? No, I cannot say that it has. I have had some considerable experience of friendly societies, though I have nothing to do with them now, and I cannot say that I ever knew a case. I think that in all the cases that arise, in which there is a disagreement between the doctor and a member he thinks he is well off; he thinks the man is better off than he is, and possibly he wants to extort a little extra attention because he is better off. That leads to friction between the doctor and the patient.

2692. Is there anything else you would like to say that would assist the Commission in the pursuit of their inquiries;—we should like especially to have an account of your experience with regard to the dispensary system with which you were connected in Edinburgh? The dispensary system is, of course, conducted as a charity—that is to say, that the people who get these dispensary orders obtain medicines and advice free. In Edinburgh there are a lot of students, who do most of the visiting, under the supervision of a medical man. The subscribers, of course, would have the option of recommending patients, and the people go to the dispensary and get attended to by the doctors there or they are visited at their homes. That system seems to me to work very well in the Old Country. There are an enormous number of cases that you cannot take into a hospital, such as old women with chronic bronchitis. They are not bad enough to go into hospitals, and they will not take them into the other institutions because they want a certain amount of medical attention, and the dispensary meets their cases. These old women go to the dispensary and get cough-mixture and other remedies. If a sick child is brought there it is attended to. If the child is very bad it finds its way to the hospital, or is suitably treated at home. I think the Charitable Dispensary fills up a very large gap in the medical charities. In Edinburgh they have the advantage of a large medical school, and they have scores of students to visit out-cases. If any difficulty arises they send for the doctor under whose supervision the students work. The same applies to midwifery, which is a very large branch, and a branch of medical charity which is very much wanted on account of its urgency. In Ireland the dispensary system is worked under the Local Government Board. The orders there are given by members of the committee, who are all ratepayers; and although it is a charity in one sense, there are no subscribers to it as in the case of the Edinburgh and other charitable dispensaries, which are kept going by private subscriptions. A dispensary like that would take off a very large number of applicants who go to the hospital-admission depot. A great number of people come in who only want a bottle of medicine, and can live at home. These we send as outdoor patients to the hospital. I would like to say something with regard to the word "pauper." If you strike out the word pauper, you strike out one great engine of force. You must have some line of demarcation. A patient will do one of two things, either go as a pauper, or find means to pay. If you strike out the word "pauper," you leave things in a state of confusion. It is the only test that you can bring to bear on a man's delicacy of feeling. Unfortunately you have to deal with a great deal of snobbery in treating the sick public. They like to boast of having been in the hospital or of the money they have paid. Many people are not a bit ashamed to go and get tickets if the word pauper is not on them. In Ireland the fact of getting a pauper's ticket disfranchises a man. They realise that if they can afford to pay, and they go and beg a ticket, they lose their franchise. Although unfortunately Ireland is different from other countries, many of the elections being illegal through the candidates being returned by pauper votes, still they are held to some extent in check by the penalty of disfranchisement. You were asking if I had anything to say about hospitals, and I would say a word about the Carrington Convalescent Hospital. If I mention some facts which came under my notice, it will bring the whole question before you with regard to demanding money from patients. I attended a man who worked for the Gas Company, who had a wife and seven or eight children. He got pneumonia, but made a good recovery, and as soon as he was well enough to get about, I said, "You must go into the country; I will get you into the Carrington Hospital." He was much pleased at this. I went to the Sydney Hospital and asked for an order, and I said, "This man cannot pay a penny. He is drawing £1 a week from his lodge, but that only pays his rent and keeps his family from starving." He went to the Carrington Hospital. I called

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at his house a few days afterwards, and said to his wife, "How does your husband like the hospital?" She said, "He does not like it at all; he wants to come home." I thought it was a very funny thing, so I cross-examined her on the matter, and she at last said, "Well, when he arrived there, he was shown into a room with a lot of other patients, and the matron or nurse came in and said, 'Well, now, what are you going to pay?', and demanded £1 a week." This took the man's breath away, and upset him so much that he felt quite ill at such a request being made before a room full of people. That was the welcome that he met with. I had distinctly stated at the hospital that the man could not afford to pay anything. I told his wife to write to him and say there was some mistake, and the man was kept at the hospital for a time. That was his experience of the Carrington Hospital. As regards the demanding of money in any special form, you are at the mercy of the nurses, the matron, or the manager. You cannot tell what they say or what they do not say. The more money they get the better they think they are doing their duty to their employers. Money should not be demanded from patients in any shape or form. They might apply to his relations, but the patient should not be troubled with such demands.

2693. I understand that you recommend the dispensary system for Sydney? I think that the dispensary system would relieve the other charities very much.

2694. It would have the effect, according to your view of the case, of preventing a good many patients from going to the hospitals at a very much larger expense; it would have the effect also of being agreeable to many of the people themselves, who would rather be treated at home; and, thirdly, it would be a very effective means of educating our students? I think so. There is a school of medicine growing up here, and students could do the visiting. One result would be that the diseases would be taken earlier, especially children's diseases. They would be diagnosed earlier. The parents carry the children to the depot at present when they are suffering from measles or scarlet fever. They wait till the patient is very bad, and then they think it is going to be taken into the hospital. Speaking with regard to a dispensary, I distinctly mean a charitable dispensary. I do not mean a provident dispensary; and if the patients know that they are getting relief out of a charity there should be no question of their paying at all.

2695. What has been your experience as a student as to the effect of this system on the education of students? I think you may say that it has been beneficial. I do not see how a student, if he simply goes round the clinical wards of a hospital preparing for his examination, ever can form a clear idea of what he has to meet when he goes out into the world and has to attend patients in dirty ill-lighted rooms with but few conveniences. In the clinical wards of a hospital you have everything that is required—perfect light, ample attendance, plenty of water, and every appliance; but when you go into some of the hovels in which people have to be attended you can get nothing, not even light. It is an experience which we all go through in the medical profession. When you go into those hovels it is very different from treating patients in a beautifully-illuminated theatre, with people to hand you sponges and hot water, and everything you want. I think that the dispensary system acted very well in the Old Country, particularly in cases of midwifery.

2696. It gives the students an experience such as they would be unable to obtain in any other way? I do not see how they could get the same experience in any other way, except by being apprenticed to a medical man in practice.

Alexander MacCormick, M.D., sworn and examined:—

- A.  
MacCormick,  
M.D.  
14 July, 1909.
2697. *President.*] You are now senior surgeon at the Prince Alfred Hospital? Yes.
2698. As regards payment by patients for treatment, would you say that the hospital should be only for necessitous cases, or should payment be taken where it is available? A great drawback with regard to payment is that the patients think that they are paying for everything that they get, and they do not hesitate to take advantage of it; whereas, if they did not pay anything, they would be too proud to take advantage of it. The hospital is a charitable institution, pure and simple, but when the patients pay they do not look upon it as a charitable institution.
2699. Is that the only objection to receiving payment if it is offered? Suppose it is known that a man can pay £1 or £2 a week, what is the objection in principle to receiving the money? There is no objection in principle, but the patient gets advice for practically nothing, and is under the impression that he is paying for all that he gets. Not only that, a man who could pay for private treatment would take advantage of that when otherwise he would not.
2700. Then to that extent it would be unfair to the profession? Yes, to the profession in general.
2701. Then, would you be opposed to payment being received from patients under any circumstance? Yes.
2702. Do you approve of payment for the registration of out-patients? That could be subjected to the same abuse as the other practice.
2703. The same principle would govern that? Yes.
2704. Perhaps to a greater degree, because the fee for registration is merely nominal? Yes. I have been at the hospital and seen a man come in who has had, perhaps, gonorrhœa. He puts 10s. in the out-patients' box and demands treatment just as if he paid for all that he got. Of course, a patient like that could be told to get his 10s. back and go somewhere else.
2705. Do you think that the hospital authorities make proper inquiries as to who can pay and who cannot? They try to, but it is impossible for them to know the circumstances of everybody.
2706. They make inquiries when the patient is admitted, but it is difficult to follow them up? Yes; I send a number of patients to the hospital, and I only take their own word as to whether or not they can afford to pay.
2707. Do you think the hospital accommodation of Sydney is sufficient for present requirements? I do not think so. Certainly it is not sufficient at the Prince Alfred Hospital. Very frequently patients from the country have to wait three or four weeks to get admission.
2708. What do you say, looking at the question as a whole? Sydney Hospital used to be crowded also I do not know what it is like now, as I have not been connected with that institution for three or four years.
2709. Assuming that the hospital accommodation is not sufficient for present requirements, could you make any suggestion as to the direction in which it should be increased? One or two extra pavilions could

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MacCormick,  
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- could be added to the Prince Alfred Hospital. The administrative department is there in any case, and the only cost would be that of two additional pavilions.
2710. And there is ample ground there? Yes.
2711. That would not apply to the Sydney Hospital? No; the ground there is limited.
2712. Could you tell as anything about Moorcliff? I do not know anything at all about it.
2713. Would you say whether, in your opinion, there should be a separate ophthalmic hospital in Sydney, or whether it could be attached to the Sydney or Prince Alfred Hospital? It could be attached to a general hospital.
2714. Would the conditions be as good in connection with a general hospital as in a separate hospital? I do not see why they should not, as long as there is plenty of room to put up separate buildings.
2715. Do you know anything about the private hospitals in Sydney? Yes.
2716. Could you tell us how many there are? I do not know. In conjunction with three other medical men, I help to keep one going. There are certainly six or seven of these hospitals.
2717. Would you approve of the registration of private hospitals? Yes.
2718. And of their inspection? Certainly.
2719. At present anybody can start a private hospital? Yes, anybody.
2720. And conduct it in any way they please till something goes wrong? Yes.
2721. Do you know whether registration and inspection are carried on in Melbourne? I do not.
2722. What are the rates that are generally charged in private hospitals? We charge from 3 guineas to 6 guineas a week, according to the accommodation required and the nature of the case. That includes everything except stimulants and washing.
2723. It includes nursing and medical attendance? No; it does not include medical attendance. It includes boarding, nursing, dressings, and that sort of thing.
2724. Do you know anything about the suburban hospitals? No.
2725. *Mr. Barling.*] I think we understand from your examination that you are entirely against any payments being made by hospital patients for treatment? Yes.
2726. How would you provide for that class of the community who are able to pay something, but who are not able to pay the heavy charges made in connection with private hospitals? I should take them for nothing in a general hospital.
2727. Would not the charitable public be very much victimised if persons went into the hospital who could pay something and yet were admitted free of cost? The charitable public would not be victimised nearly so much as they are already, because people take advantage of the hospitals now. They pay a small fee, and they think they are not under an obligation to anybody.
2728. Would it not be a good thing to have a second-class hospital which would charge graduated fees, so that a person who might be able to pay 15s., or £1, or £2 a week could go there instead of to private hospitals, the charges in which they could not pay in addition to the medical fees? Would that be looked upon as a charitable institution?
2729. It might be partly so? No patient could be provided for out of 15s. a week.
2730. I suppose a patient could be provided for for 30s. or £2 a week? That would pay his maintenance expense in a general hospital, nothing more.
2731. If a person paid £2 a week he would not feel that he was dependent exactly on charity? I think that most medical men who give their services to charities for nothing would prefer that the patients who go there should not pay anything.
2732. So you would leave patients to go elsewhere, and pay what they could afford, by making special arrangement with the doctor in connection with a private hospital? Yes. I am thinking of surgical cases principally, and their attendance would be expensive. They could be sent to a general hospital for nothing.
2733. A case has come under our notice, in evidence given here, of a patient who was prepared to pay 30 guineas for an operation, but the doctor demanded 50 guineas; being unable to pay 50 guineas the patient went into the hospital and got the operation done for nothing;—are not cases like that likely to occur under the present system? If a person could pay 30 guineas his residence in all probability in the hospital would not take more than three weeks, and that would mean 9 guineas for board and lodging. That would not be much.
2734. If a person can pay 30 guineas, but cannot pay 50 guineas, and has to go to the hospital, it would seem that some system should be devised which would do away with such anomalies? There is a great difference between 30 guineas and 15s. a week.
2735. It seems that some middle-class hospital should be provided to meet the cases of the numerous class who are getting from £150 to £200 a year, and who have to go into the hospitals or to make some private arrangement? We try to meet that class of cases by special arrangements.
2736. Have you paid any attention to the dispensary system which is in operation in Edinburgh and other parts of the Old Country? Yes; I attended some of the dispensaries there as a student.
2737. Do you think it would be advisable to have some such system in Sydney? I do.
2738. What would be the advantages of it? It would relieve the out-patients' department of the hospital, and it would provide a field for teaching students from the University. In Edinburgh the students pay a small fee to the dispensary, and they see all the out-patients. They get the names and addresses of patients who are very ill, and visit them. When they are in any trouble, or doubt, a fully qualified medical man is called in.
2739. Such a system as that would relieve the hospitals of a great many patients who go there now, and it would provide opportunities which are now wanting of educating our medical students? Yes.
2740. Evidence has been given to us that students in the hospitals, where they have first-class appliances of every kind, may be at a loss to know what to do when they visit patients in poor quarters, so that a dispensary system would meet a want in that direction? Yes.
2741. Would you think that such a dispensary could be established here? I think so—in fact, there was some talk about it amongst medical men some years ago.
2742. From your experience, you think it would be a desirable thing? Yes, a very desirable thing.
2743. A great deal has been said in Parliament and elsewhere about overworking nurses; would you give us your opinion on that subject. At the Prince Alfred Hospital the nurses work ten and a half hours a day;—do you think that is too long? Much depends upon the size of the staff. I daresay that sometimes they would be worked very hard.

- A. MacCormick, M.D.  
14 July, 1899.
2744. From your experience of that hospital, do you think the nurses there are overworked? I have not the opportunity of seeing them during the early morning hours or late in the evening; but they always look very well.
2745. *Dr. Manning.*] Would not a free dispensary also relieve the in-patients department of the hospital? Yes, of course, by students visiting the patients at their own homes.
2746. Therefore there would be more beds left for urgent cases? Yes.
2747. The number of ophthalmic patients at the Prince Alfred Hospital is rather small for teaching purposes, is it not? Yes; far too small for teaching purposes.
2748. Would it not be an advantage to increase the ophthalmic department of that hospital? Certainly.
2749. Have you any scheme for the support of hospital patients if payments are abolished? No; that is a part of the matter that I have never thought about.
2750. *President.*] Have you ever considered the question of a hospital rate? That is the only way that you could get at the people who really benefit by the hospital.
2751. The cost of the hospitals falls now on the liberal portion of the community? Yes. A great many people who take advantage of the hospitals would have to pay if we had a hospital rate. The class of people who take advantage of the hospitals here are a class much better off than those who do so in the Old Country.

MONDAY, 28 AUGUST, 1899.

[The Commission met at the Offices of the Public Service Board at 2:15 o'clock, p.m.]

Present:—

G. A. WILSON, Esq., J.P. (PRESIDENT).

F. N. MANNING, Esq., M.D.  
J. POWELL, Esq., J.P.

J. BARLING, Esq., J.P.  
CRITCHETT WALKER, Esq., C.M.G.

Robert Thompson Paton, L.R.C.P., Ed., F.R.C.S., Ed., further examined:—

- R. T. Paton, L.R.C.P., F.R.C.S.  
28 Aug., 1899.
2752. *Mr. Barling.*] When you were before us in April last you gave the following evidence: You said, "At present we have practically an epidemic of venereal diseases. I never remember having so many cases as we have had in the first three months of this year." Since then Dr. Thompson has furnished us with statistics on the matter, which, although to a certain extent bearing out your statement of the case, do not do so to the extent that your answer may convey. The percentage of male venereal cases of the total number of applications at the Hospital Admission Depôt, in 1898, was 10.61; from January to the end of June, 1899, it was 13.37, a considerable increase. For the year 1898, the corresponding percentage in the case of females was 4.71, and for the half-year of 1899, 6.38; we understand you have some further information on the matter? My reason for stating that there was an increase in the number of cases was because from 1st to 30th June, 1898, we had 440 male cases, and 92 female cases, applying at the Hospital Admission Depôt, and from 1st to 30th June, 1899, there were 523 male, and 92 female cases, showing an increase of 83 males. The accommodation for lock cases is 34 beds for men at the Coast Hospital, and 12 beds for women, who are treated at the Sydney Hospital. That the Coast Hospital accommodation is insufficient is shown by the fact that during the first six months of 1899, on 92 of the 155 working days, the Coast Hospital bed-list showed no vacancy for venereal cases. The venereal cases applying at the Hospital Admission Depôt are all of the destitute class; and, judging from the expensive advertisements of persons professing to cure such diseases, one is led to believe that the cases applying at the depôt only represent a very small proportion of the number of venereal cases in Sydney.
2753. Can you tell us what powers the police have in dealing with a case of prostitution or solicitation to that end? I cannot be absolutely certain; but I understand the police cannot arrest except on the charge of the person solicited.
2754. The police cannot take independent action? So far as I am aware, that is so.
2755. Can you suggest any measure, short of legislative in the shape of a Contagious Diseases Act, which would have a tendency to minimise the evils which are shown to be so great a burden on our charities? If we had power to retain the women in the hospital until the infectiousness of the disease had disappeared that would be a help.
2756. We should require legislation for that? Yes.
2757. Dr. Mackellar has given evidence on this point; he is very much opposed to repressive legislation, but he says every inducement should be held out to the women to remain in the hospital so long as there was a danger of spreading disease;—do you think everything is now done in that direction that can be accomplished? I think so.
2758. The women show themselves restive of retention? Some remain in for a considerable time; but others only remain until they can get about conveniently—until pain and sores have disappeared.
2759. Not until they are cured? No.
2760. Have you ever visited at the homes of people who are not able to go to the Hospital Admission Depôt? I visit the destitute sick unable to attend at the Hospital Admission Depôt, at the request of the Chief Medical Officer, and of the police.
2761. At their own homes? Yes; I am also frequently asked at my own house to visit, by clergymen and others. I sometimes receive requests by letters and telephone, and am sometimes asked by charitable societies. Visits, other than at the request of the Chief Medical Officer or police, are not recognised as part of my duties.
2762. When you see persons at their own homes, what are the circumstances which lead you to send them to the hospital? Some of them are sent to the hospital because they are suffering from diseases requiring surgical treatment, or are acute medical cases requiring constant nursing; others I have to send to the hospital—because they are destitute, because they have no means to obtain medicines or medical attendance or the necessary food.
2763. Have you always done this? Yes.

2764. I think you are conversant with what is known as the dispensary system, especially in Edinburgh;— will you let us know whether you think it desirable to institute some such system here, and whether, if that were done, it would sensibly relieve the hospitals? In my opinion it would be a good thing to institute here, and also it would, to a certain extent, relieve the hospitals. There are a number of cases which I have sent in which could have been treated at home had they been able to get medicines and regular medical attendance.

R. T. Paton,  
L.R.C.P.,  
F.R.C.S.  
28 Aug, 1899.

2765. It would also be of advantage to medical students, who could be usefully employed in carrying out this work? Yes.

2766. I understand you are entirely in favour of some such system here? I am.

2767. *President.*] If women are to be compulsorily detained, the number of beds must be largely increased? Yes, you would require more than the twelve beds that are now available.

2768. Until the beds were increased the measure would only have a limited effect? Yes; they would soon be filled up.

2769. *Mr. Powell.*] If you had power to keep these women in the hospital, the advantage would only be a limited one, as you would have no control over those who would not go to the hospital? It would be a slight amount of protection, but not a great deal. The people who apply are only those who are destitute.

2770. Disease might be very freely propagated by others? Yes; by those who could afford medical treatment elsewhere.

[Two Maps.]

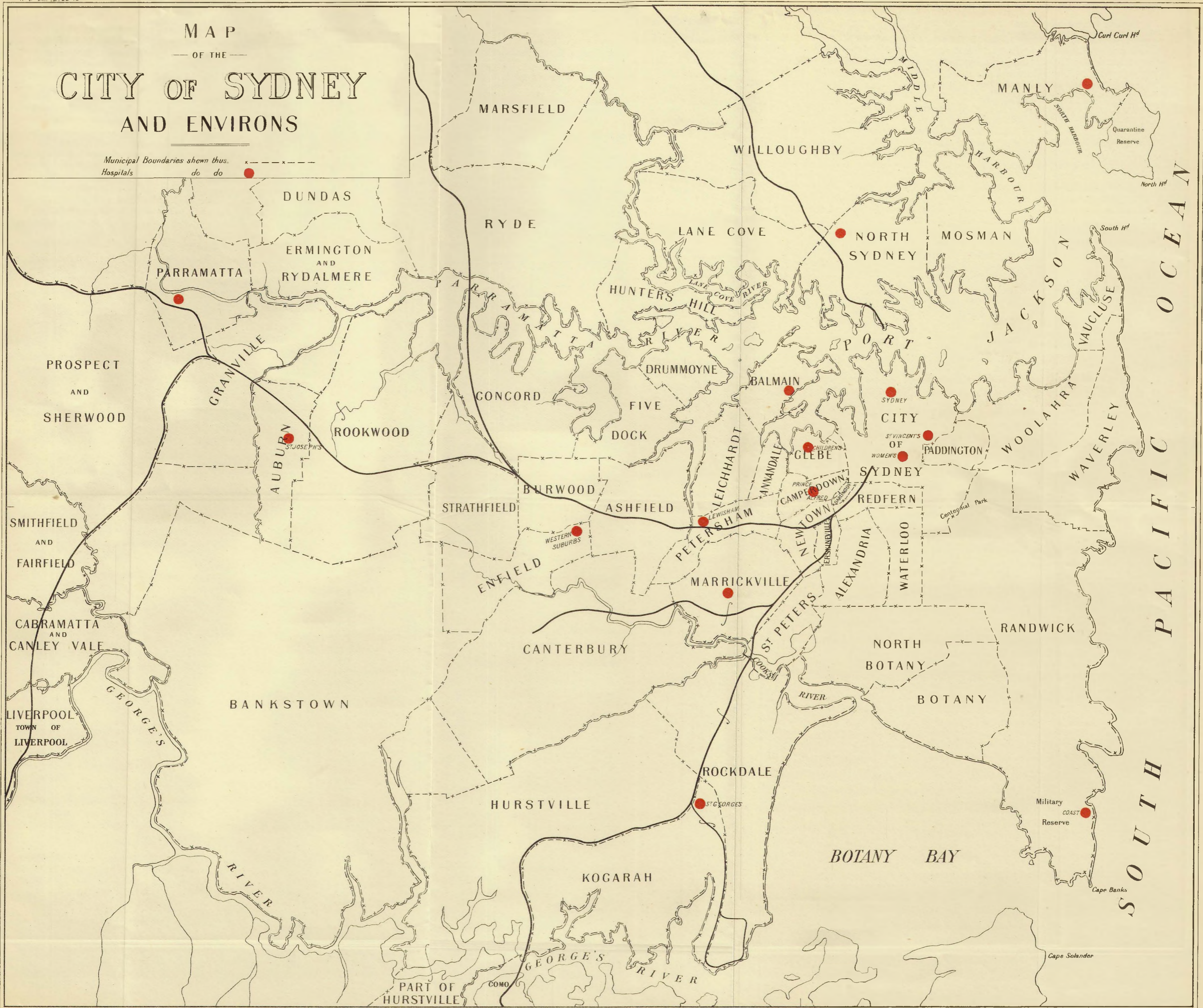
Sydney: William Applegate Gullick, Government Printer.—1899.

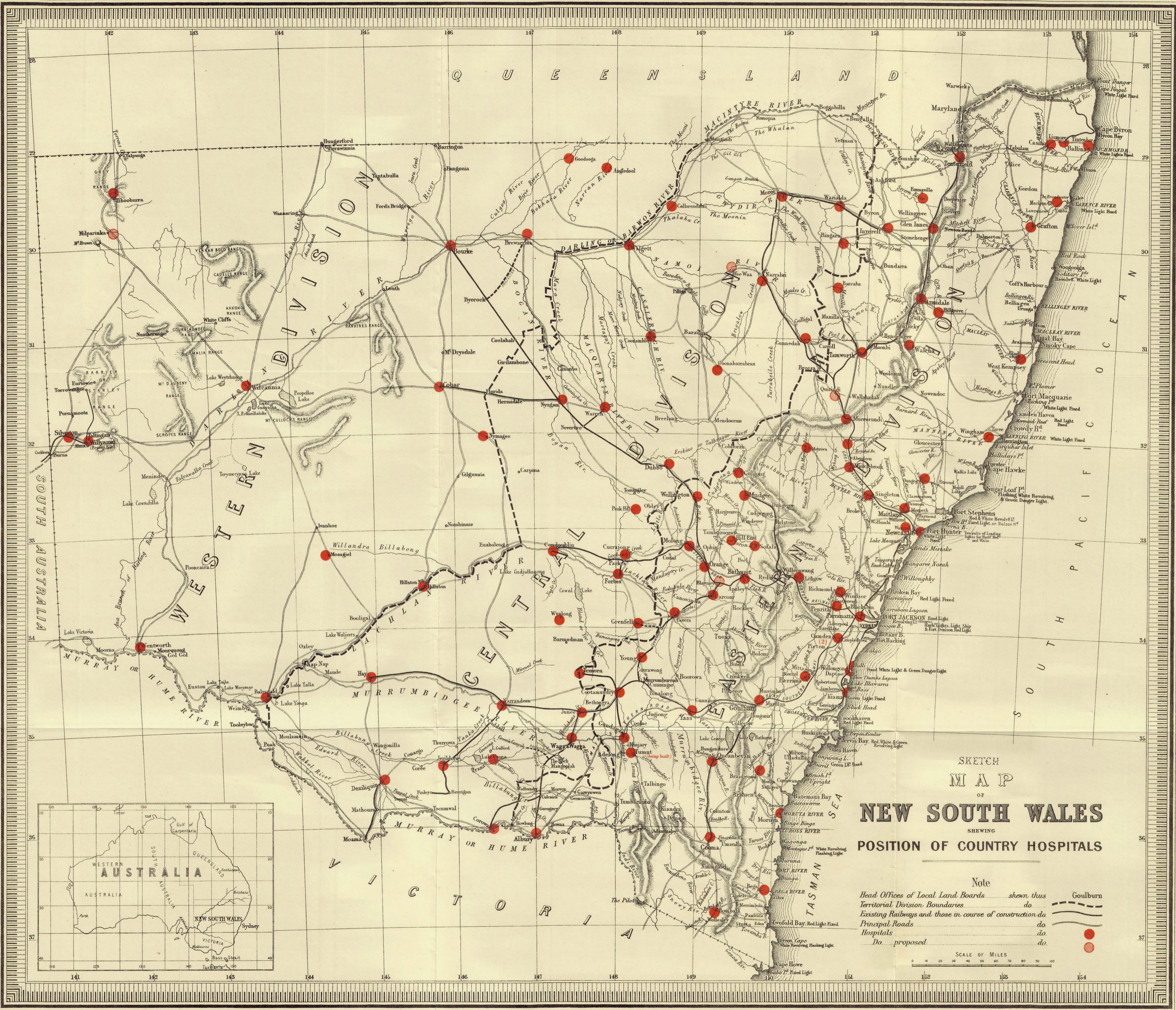
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# MAP OF THE CITY OF SYDNEY AND ENVIRONS

Municipal Boundaries shown thus: - - - - -  
Hospitals do do ●

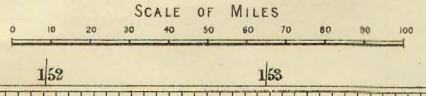




SKETCH  
MAP  
OF  
**NEW SOUTH WALES**  
SHOWING  
**POSITION OF COUNTRY HOSPITALS**

Note

Head Offices of Local Land Boards	shewn thus	Goulburn
Territorial Division Boundaries	do	— — — — —
Existing Railways and those in course of construction	do	— — — — —
Principal Roads	do	— — — — —
Hospitals	do	●
Do. proposed	do	○





1899.  
(THIRD SESSION.)

—  
LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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# FIFTH AND FINAL REPORT

OF THE

## ROYAL COMMISSION ON PUBLIC CHARITIES.

APPOINTED 10<sup>TH</sup> NOVEMBER, 1897.

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*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

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SYDNEY: WILLIAM APPELGATE GULLICK, GOVERNMENT PRINTER.

1899.

201—A

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**Commission.**

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen,  
Defender of the Faith, and so forth,—

To Our Trusty and Well-beloved—

JOSEPH BARLING, Esquire, Chairman of the Public Service Board, and one of Our Justices of the Peace of Our Colony of New South Wales, Associate of the Institution of Civil Engineers ;

GEORGE ALEXANDER WILSON, Esquire, a Member of the Public Service Board, and one of Our Justices of the Peace of Our said Colony ; and

JAMES POWELL, Esquire, Deputy Member of the Public Service Board, and one of Our Justices of the Peace of Our said Colony,—

Greeting:—

Know Ye, That We, reposing great trust and confidence in your ability, zeal, industry, discretion, and integrity, do, by these presents, authorise and appoint you, or any two of you, as herein-after mentioned, to make a diligent and full inquiry into, and report upon the methods of carrying on Government Charitable Institutions, and the way in which Grants of public money to charitable objects under the control of the Government are administered, including Grants for the Aborigines; and to report also upon the methods of administration and relief in force in all charitable organizations which receive aid from the public Treasury, including the Hospitals of the Colony; with further power to suggest desirable changes in the existing state of affairs, with a view to placing the expenditure of public moneys in such directions upon a more satisfactory footing: And We do, by these presents, grant to you, or any two of you, at any meeting or meetings to which all of you shall have been duly summoned, full power and authority to call before you all such persons as you may judge necessary, by whom you may be better informed of the truth in the premises, and to require the production of all such books, papers, writings, and all other documents as you may deem expedient, and to visit and inspect the same at the offices or places where the same or any of them may be deposited, and to inquire of the premises by all lawful ways and means: And We do give you power at your discretion to procure such clerical and other assistance as you may deem necessary for enabling you duly to execute this Our Commission: And Our further will and pleasure is that you do within three months after the date of this Our Commission, certify to Us, in the office of Our Chief Secretary under your or any two of your hands and seals, what you shall find touching the premises: And We hereby command all Government Officers and other persons whomsoever within Our said Colony, that they be assistant to you and each of you in the execution of these presents: And We appoint you the said JOSEPH BARLING, Esquire, to be President of this Our Commission; which said Commission We declare to be a Commission for all purposes of the Act 14 Victoria, No. 1, intituled "*An Act to regulate the taking of Evidence by Commissioners under the Great Seal.*"

In testimony whereof, We have caused these Our Letters to be made Patent, and the Great Seal of Our said Colony of New South Wales to be hereunto affixed.

Witness Our Right Trusty and Well-beloved Cousin, HENRY ROBERT, VISCOUNT HAMPDEN, Our Governor and Commandor-in-Chief of Our Colony of New South Wales and its Dependencies, at Government House, Sydney, in New South Wales aforesaid, this tenth day of November, in the year of Our Lord one thousand eight hundred and ninety-seven, and in the sixty-first year of Our Reign.

(I.S.)

HAMPDEN.

By His Excellency's Command,

JAMES N. BRUNKER.

Entered on Record by me, in Register of Patents No. 19, page 151, this eleventh day of November, one thousand eight hundred and ninety-seven.

For the Colonial Secretary and Registrar of Records,

CRITCHETT WALKER,  
Principal Under Secretary.

VICTORIA,

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen,  
Defender of the Faith, and so forth,—  
To our Trusty and Well-beloved—

GEORGE ALEXANDER WILSON, Esquire, a Member of the Public Service Board, and one of Our  
Justices of the Peace of Our said Colony,—

Greeting:—

WHEREAS by an instrument under the Great Seal of Our Colony of New South Wales, bearing date the tenth day of November, one thousand eight hundred and ninety-seven, We did, *inter alia*, appoint JOSEPH BARLING, Esquire, to be a Member, and also President of the Royal Commission of Inquiry in connexion with Charitable Institutions: And whereas the said JOSEPH BARLING has now resigned the Office of President: Now, therefore, know You, that We, of Our especial grace, have thought fit to appoint, and do hereby appoint you, the said GEORGE ALEXANDER WILSON, to be President of such Commission.

In testimony whereof, We have caused these Our Letters to be made Patent, and the Great Seal of Our said Colony of New South Wales to be hereunto affixed.

Witness Our Right Trusty and Well-beloved Cousin, HENRY ROBERT, VISCOUNT HAMPDEN, Our Governor and Commander-in-Chief of Our Colony of New South Wales and its Dependancies, at Government House, Sydney, in New South Wales aforesaid, this eighth day of February, in the year of Our Lord one thousand eight hundred and ninety-eight, and in the sixty-first year of Our Reign.

(L.S.)

HAMPDEN.

By His Excellency's Command,  
JAMES N. BRUNKER.

Entered on record by me, in Register of Patents No. 19, page 263, this eighth day of February, one thousand eight hundred and ninety-eight.

For the Colonial Secretary and Registrar of Records,  
CRITCHETT WALKER,  
Principal Under Secretary.

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen,  
Defender of the Faith, and so forth,—  
To Our Trusty and Well-beloved—

RICHARD CORNELIUS CRITCHETT WALKER, Esquire, Companion of Our Most Distinguished Order of Saint Michael and Saint George, Principal Under Secretary; and

FREDERIC NORTON MANNING, Esquire, Doctor of Medicine,—

Greeting:—

WHEREAS by an instrument under the Great Seal of Our Colony of New South Wales, bearing date the tenth day of November, one thousand eight hundred and ninety-seven, We did appoint JOSEPH BARLING, GEORGE ALEXANDER WILSON, and JAMES POWELL, Esquires, to be a Royal Commission of Inquiry in connexion with Charitable Institutions, and the said JOSEPH BARLING to be President thereof: And whereas by a further instrument, bearing date the eighth day of February, one thousand eight hundred and ninety-eight, We did appoint the said GEORGE ALEXANDER WILSON to be President of such Commission in the stead of the said JOSEPH BARLING, who had resigned such office: And Whereas it hath appeared to Us to be expedient to appoint additional Commissioners: Now, therefore, know Ye, that We, of Our especial grace, have thought fit to appoint, and do hereby appoint, you to be such additional Commissioners accordingly.

Witness Our Right Trusty and Well-beloved Cousin, HENRY ROBERT, VISCOUNT HAMPDEN, Knight Grand Cross of Our Most Distinguished Order of Saint Michael and Saint George, Our Governor and Commander-in-Chief of Our Colony of New South Wales and its Dependancies, at Government House, Sydney, in New South Wales aforesaid, this sixteenth day of February, in the year of Our Lord one thousand eight hundred and ninety-nine, and in the sixty-second year of Our Reign.

(L.S.)

HAMPDEN.

By His Excellency's Command,  
JAMES N. BRUNKER.

Entered on record by me, in Register of Patents No. 20, page 272, this twentieth day of February, one thousand eight hundred and ninety-nine.

For the Colonial Secretary and Registrar of Records,  
CRITCHETT WALKER,  
Principal Under Secretary.

#### ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS it is necessary to extend the time within which the Commissioners are to make their report in the above matter: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the said Commissioners are to make such report for a period of six months,—to take effect from the 10th February, 1898.

Given under my hand at Government House, Sydney, this second day of March, one thousand eight hundred and ninety-eight.

HAMPDEN.

By His Excellency's Command,  
JAMES N. BRUNKER.

ROYAL

ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the second day of March last, extended for a period of six months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of three months beyond the time in and by the aforesaid instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this second day of August, one thousand eight hundred and ninety-eight.

HAMPDEN.

By His Excellency's Command,  
JAMES N. BRUNKER.

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ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the second day of August last, extended for a period of three months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of three months beyond the time in and by the aforesaid Instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this eleventh day of November, one thousand eight hundred and ninety-eight.

HAMPDEN.

By His Excellency's Command,  
JAMES N. BRUNKER.

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ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the eleventh day of November last, extended for a period of three months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of three months beyond the time in and by the aforesaid Instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this sixteenth day of February, one thousand eight hundred and ninety-nine.

HAMPDEN.

By His Excellency's Command,  
JAMES N. BRUNKER.

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ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the sixteenth day of February last, extended for a period of three months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of four months beyond the time in and by the aforesaid Instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this second day of May, one thousand eight hundred and ninety-nine.

FRED. M. DARLEY,  
Lieutenant-Governor.

By His Excellency's Command,  
JAMES N. BRUNKER.

---

ROYAL COMMISSION OF INQUIRY ON PUBLIC CHARITIES.

WHEREAS the time appointed for the return of the Commission in the above matter was by an Instrument dated the second day of May last, extended for a period of four months; And whereas it is necessary to extend the same still further: Now, therefore, I do hereby, with the advice of the Executive Council, extend the time within which the Commission are to make their return to, and for a further period of one month beyond the time in and by the aforesaid Instrument appointed for the purpose,—to take effect from the 10th instant.

Given under my hand at Government House, Sydney, this thirteenth day of September, one thousand eight hundred and ninety-nine.

BEAUCHAMP.

By His Excellency's Command,  
JAMES N. BRUNKER.

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## ROYAL COMMISSION ON PUBLIC CHARITIES.

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**PROCEEDINGS OF THE COMMISSION.**

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*FRIDAY, 22 SEPTEMBER, 1899.*

The Commission met at the Offices of the Public Service Board at 2·15 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, and Dr. Manning.

The draft of the final report of the Commission was read and discussed.

The document extending the appointment of the Commission until the 10th proximo was received.

The minutes of the previous meeting were read and confirmed.

The Commission adjourned at 3·15 o'clock p.m.

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*MONDAY, 25 SEPTEMBER, 1899.*

The Commission met at the Offices of the Public Service Board at 2·15 o'clock p.m.

Present:—Messrs. G. A. Wilson (President), J. Barling, J. Powell, and Dr. Manning.

The draft of the final report was further considered, and on the motion of Mr. Barling, seconded by Dr. Manning, was adopted.

The minutes of the previous and of the present meeting were read and confirmed.

The Commission closed at 3 o'clock p.m.

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ROYAL COMMISSION ON PUBLIC CHARITIES.

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REPORT.

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To His Excellency the Right Honorable WILLIAM, EARL BEAUCHAMP,  
K.C.M.G., Governor and Commander-in-Chief of the Colony of New  
South Wales and its Dependencies.

MAY IT PLEASE YOUR EXCELLENCY,

We, your Commissioners, were appointed by Letters Patent, dated the 10th day of November, 1897, "to make a diligent and full inquiry into, and report upon the methods of carrying on Government Charitable Institutions, and the way in which grants of public money to charitable objects under the control of the Government are administered, including Grants for the Aborigines; and to report also upon the methods of administration and relief in force in all charitable organizations which receive aid from the Public Treasury, including the Hospitals of the Colony; with further power to suggest desirable changes in the existing state of affairs, with a view to placing the expenditure of public moneys in such directions upon a more satisfactory footing." Much time was occupied at the outset of the inquiry by a special investigation which we were required to make, under the authority of a separate Commission, into the management of the Institution for the Blind at Strathfield; but on the termination of that investigation we proceeded with our main inquiry, and determined to divide the work into the following sections:—

1. Institutions dealing with the Blind and with the Deaf and Dumb.
2. Subsidised Charitable bodies, such as the Benevolent Societies and kindred institutions.
3. Hospitals.
4. The Aborigines.
5. Government Institutions controlled by the Director of Charities, and also the operations of the State Children Relief Board.

With statistical information before us relative to the operations of the institutions coming within the above groups, we did not think it would be necessary to take formal evidence in respect to each institution; and we proposed, in regard to Groups 2 and 3, to report only on important typical institutions, and on such of the less important as might appear, on an analysis of their accounts, or for other reasons, to require special investigation, from which course we have found no reason to depart.

Our first Report, dated 29th June, 1898, dealt with—

- The Institution for the Deaf and Dumb and the Blind, Newtown Road;
- „ Sydney Industrial Blind Institution;
- „ Institution for the Blind, Strathfield;
- „ St. Patrick's Institution for the Blind, Lewisham; and
- „ Institution for the Deaf and Dumb at Waratah.

The two latter, not being State subsidised institutions, did not come within the scope of the Commission; but, finding that a knowledge of their operations would probably throw light on the subject we were commissioned to inquire into, we obtained the permission of their governing authorities to extend our inquiries to them.

At

At the end of the Report is given a summary of the recommendations embodied within its pages as follows:—

*Institution for the Deaf and Dumb and the Blind.*

1. That, as long as State aid is continued, a responsible officer of the Government shall have power—(1) to audit the accounts at any time; (2) to ascertain if the funds are expended for proper purposes, and with due regard to economy; (3) to see that the rules and by-laws are carried out in their integrity; (4) to report generally on the management of the institution, with a view to bringing under the notice of the Government and the Committee any defects that may, in his opinion, exist in connection therewith.
2. That receipts be given for all subscriptions, and that the auditor should include in his audit a thorough check of the receipt-book butts.
3. That the request of the Committee for a grant of £6,000 for building purposes be declined, the Committee having ample funds for the necessary buildings.
4. That a more extended energetic canvass for public subscriptions be made, particularly in the country districts of the Colony.
5. That measures be taken to collect all arrears of fees now recoverable, and that in future payment in advance should, as far as possible, be insisted on, as provided in the Committee's form of security; and that any special arrangements for reduced payments which it may be necessary to make with parents or guardians who may not be in a position to pay the prescribed fees, be strictly enforced, and any payments so arranged for be made in advance.
6. That Government payments for the maintenance of inmates of the institution be confined in future to children under the control of the State Children Relief Board; and that the fees for such children be paid from the Parliamentary Vote for the services of the State Children Relief Department.
7. That, in order to secure the additional accommodation at the Institution for the Deaf and Dumb and the Blind which the Committee state is required, the Roman Catholic children now there should be transferred to the Roman Catholic Institutions at Lewisham and Waratah, if satisfactory arrangements can be made for such transfer; and that, in future, all deaf and dumb and blind children of that Church who may be at any time under the control of the State Children Relief Board, should be maintained in the institutions established for that purpose at Lewisham and Waratah.
8. That the age at which pupils should be discharged from institutions in receipt of aid from the Government for the education of the deaf and dumb and the blind should not exceed sixteen years.
9. That there should be legislation for the purpose of controlling the admission of indigent deaf and dumb and blind persons from other colonies into New South Wales.
10. That in view of the risk attendant upon lending money on mortgage of freehold property, the Directors in future invest their accumulated funds in Government securities.

*Sydney Industrial Blind Institution.*

1. That, in view of the very considerable increase in the funds of the institution which will accrue from the Hunter-Baillie Legacy, and of the extended canvass which it has been determined to make for the purpose of obtaining increased voluntary contributions, the subsidy to be paid in future by the Government towards the maintenance and instruction of the workers shall not exceed £15 per head per annum, at which rate indigent persons can be maintained in Government Asylums for the Infirm and Destitute.



2. That, as long as State aid is continued, a responsible officer of the Government shall have power—(1) to audit the accounts at any time; (2) to ascertain if the funds are expended for proper purposes, and with due regard to economy; (3) to see that the rules and by-laws are carried out in their integrity; (4) to report generally on the management of the institution, with a view to bringing under the notice of the Government and the Committee any defects that may, in his opinion, exist in connection therewith.
3. That, in order to enable blind workers at the institution to live with reasonable comfort in their homes, their minimum weekly remuneration (inclusive of allowances) should be fixed at 17s. 6d. for men and 15s. for women, except in the case of workers who have other means of support.
4. That, in order to confine expenditure as far as possible to the instruction of blind workers who are capable of becoming fairly expert in the trades taught at the institution, it should be a condition in the case of any male worker that he should earn from the proceeds of his own labour not less than 10s. a week on the average, and in the case of any female worker that she should earn not less than 7s. 6d. a week on the average. The average for the purpose of this calculation to be the average of the immediately preceding quarter, ending 31st March, 30th June, 30th September, or 31st December, as the case may be.
5. That, as it is possible some of the workers may endeavour to take improper advantage of the provision for a standard minimum wage by not earning more than 10s. a week in the case of men, and 7s. 6d. in the case of women, the Committee provide against any such default by making mandatory instead of permissive By-law 11, which provides: "If at any time a learner or worker shall appear to be unsuited to the employment, or incapable of efficiency in it, or his conduct shall appear to be detrimental to the credit of the institution, or he shall become intoxicated, or conduct himself in a disorderly or unbecoming manner, or behave disrespectfully to the officers, the Committee may require him to leave."
6. That, should any worker be found to be incapable, after receiving two years' instruction, of attaining the standard of efficiency necessary to qualify to obtain the minimum wage, or should it be obvious at any earlier period that any worker cannot or will not reach the standard, such worker shall be required to leave the institution, in accordance with the provisions of the foregoing By-law.
7. That, as the By-laws only relate to male workers, a By-law be adopted providing for the appointment of a ladies' committee (which is already in existence without any such By-law) to deal with the women who are now admitted as workers at the institution.
8. That the periodical valuation of the stock, in the form of material and manufactured goods, be made by an expert not connected with the institution, whose certificate should be published in the Committee's Annual Report.

*Institution for the Blind at Strathfield.*

That, in view of the fact that two industrial establishments for the blind are unnecessary, and that their maintenance separately causes great waste of public money, the Committees of the Sydney Industrial Blind Institution and the Institution for the Blind at Strathfield be invited to meet and discuss with the Government proposals for the amalgamation of their institutions, in order that the women now employed in the industrial division of the home at Strathfield may be transferred to the Sydney Institution at Boomerang-street, and boarded and lodged in respectable homes, and utilising the buildings at Strathfield for other public purposes. As stated on page 13 of our Report on the Institution for the Blind at Strathfield, in view of the limited scope of the Home Teaching Department and the large expenditure incurred upon its administration, we fail to see any necessity for continuing its operations.

In the second section of our inquiries we commenced with the Benevolent Society of New South Wales, and, in view of the important position it occupies, and the urgent necessity for some alteration in its policy, we thought it desirable to make it the subject of a special report, which was presented on the 2nd December, 1898, and stands as the second Report of the series.

The recommendations which we were led to make as the result of a close and somewhat lengthy inquiry into the operations of this institution, were as under:—

1. That the operations of the Benevolent Society of New South Wales be confined, in future, to the distribution of outdoor relief and the reception and casual relief of destitute women and children.
2. That a maternity hospital on modern lines be established at Darlinghurst, as recommended in our letter of 11th October, 1898, to the Honorable the Chief Secretary, and that the property now known as the School of Industry be resumed for that purpose, and the necessary additions and alterations made to the building.
3. That the constitution of the proposed new hospital should be framed on lines somewhat similar to that of the Sydney or Prince Alfred Hospital, so as to invite and elicit from the public support for its maintenance.
4. That, in order to provide the School of Industry with other premises, negotiations be opened by the Government with the trustees of the Institution for the Blind for the acquisition of that institution's property at Strathfield.
5. That so long as the lying-in department is carried on at the Benevolent Asylum women confined there shall be required to leave the institution within thirty days after confinement, if certified by a duly qualified medical man to be fit for removal. Mothers, with their infants, not otherwise provided for, should be handed over to the Department of Charities for transfer to the Newington Asylum; the children, as soon as they reach a suitable age, should be boarded out by the State Children Relief Board.
6. Children, when received at the Benevolent Asylum, should be handed over without delay to the State Children Relief Board, upon which body the responsibility of dealing with such children has been placed by law.
7. That while the work of the Society is carried on as at present a paid medical officer be appointed, in addition to the honorary staff, to attend daily at the institution.
8. In view of the evidence which has been given to the effect that some of the recipients of outdoor relief are living in a state but little removed from starvation, we recommend for favourable consideration the giving of a larger grant for outdoor relief.
9. That the inspecting staff of the outdoor relief division be increased. Of the increased staff one should be a woman.
10. That in connection with the administration of outdoor relief the Society obtain the voluntary assistance of committees of lady inspectors in the several districts within the field of its operations, in order to secure a more efficient dispensation of charity.
11. That the accounts of the Society be audited by a competent independent auditor, instead of, as at present, by members of the Board of Directors.
12. That as long as State-aid is continued a responsible officer of the Government shall have power—(1) to audit the accounts at any time; (2) to ascertain if the funds are expended for proper purposes, and with due regard to economy; (3) to see that the rules and by-laws are carried out in their integrity; (4) to report generally on the management of the institution, with a view to bringing under the notice of the Government and the Committee any defects that may, in his opinion, exist in connection therewith.

13. If the first recommendation be given effect to, the present site and premises will not be required for the operations of the Society. We recommend that, in that case, the Society be provided with suitable premises (a store, offices, and casual refuge for destitute women and children) in exchange for those now occupied, which would then become available for any public purpose that may be determined upon.

Our Third Report, dated the 13th April, 1899, completed the investigation in regard to subsidised benevolent institutions, other than hospitals, and also dealt with the question of the administration of out-door relief by the Government. The institutions which were specially reported upon were—

The Sydney Rescue Work Society.  
 The Society for providing Homes for Neglected Children.  
 The Salvation Army's Institutions.  
 The City Night Refuge and Soup Kitchen.  
 The Sydney Night Refuge and Reformatory.  
 The Infants' Home, Ashfield.  
 The Central Mission Children's Home.  
 The St. Vincent de Paul's Home for Destitute Boys.  
 The Sydney Female Mission Home.  
 The Newcastle and Northumberland Benevolent Society.  
 The Newcastle Relief Society.  
 The Newcastle Mutual Help Society.  
 The Maitland Benevolent Society.  
 The Women's Hospital and Dispensary.

And the following are the recommendations which accompany that Report:—

1. That no further Government aid should be given to the undermentioned institutions:—
  - Sydney Rescue Work Society.
  - Society for providing Homes for Neglected Children.
  - Newcastle Relief Society.
  - Newcastle Mutual Help Society.
  - Sydney Female Mission Home.
  - Central Mission Children's Home.
  - Sydney Night Refuge and Reformatory, Francis-street, Woolloomooloo.
2. That, in view of the fact that the boarding-out and individual treatment of children has been sanctioned by Parliament, and has been shown to be the system best calculated for their future success and welfare, no institution in which children are dealt with in the aggregate should, except under special conditions, be subsidised by the State.
3. That subsidies to societies or organisations controlling more than one institution should not be granted so that they may be used for general purposes at the discretion of the management, but should be granted towards special objects to be named and defined.
4. That as the grant to the Discharged Prisoners' Aid Society, voted from 1881 to 1896, has been discontinued, and no special assistance is now given to discharged prisoners, except in the form of gratuities and railway fares, assistance should be continued to the Prison-gate Home for Men, and the Rescue Homes for Women—institutions mainly for the aid of discharged prisoners, which are carrying out useful work in a commendable and systematic manner under the direction and control of the Salvation Army, and which are now receiving aid in the form of State grants voted to that body for its "social work" generally.
5. That institutions which provide temporary relief, either in the form of quarters, food, or money, should demand the performance by all able-bodied applicants of a certain amount of work, in partial or full return for the assistance rendered; and that in the distribution of State aid preference should be given to institutions giving effect to that system.

6. That as soon as an hospital for the treatment of maternity cases and the diseases of women, such as is recommended in our report on the Benevolent Society of New South Wales, be established, no further State aid be granted to any other maternity home in the metropolis.
7. That in future it shall be a condition precedent to the granting of State aid to any institution, that it shall be visited and reported on by a responsible Government officer, and that after such aid is granted visits shall be paid to such institution once at least in every six months.
8. That as long as State aid is continued, a responsible officer of the Government shall have power—(1) to audit the accounts at any time; (2) to ascertain if the funds are expended for proper purposes, with due regard to economy; (3) to see that the by-laws are carried out in their integrity; (4) to report generally on the management of the institution, with a view to bringing under the notice of the Government and the Committee any defects that may, in his opinion, exist in connection therewith.
9. That Government allowances for out-door relief granted by the Chief Secretary's Department direct, and also through other agencies, should be dispensed on a much smaller scale than at present; and that as soon as local government is established throughout the Colony, any expenditure for out-door relief, not met from private charity, should be thrown entirely on the local rates, and not made a charge on State funds, either by subsidy or otherwise.

The Fourth Report, dated 15th September, 1899, embraces the results of our inquiries in respect to the hospitals of the Colony, and the provision made by the Government for the treatment of the sick poor. The principal recommendations contained in the Report are as under :—

- That all subsidised hospitals shall be periodically visited by an officer of the Government who shall have power—(1) to audit the accounts at any time; (2) to ascertain if the funds are expended for proper purposes, with due regard to economy; (3) to see that the by-laws are carried out in their integrity; (4) to report generally on the management of the institution, with a view to bringing under the notice of the Government and the Committee any defects that may, in his opinion, exist in connection therewith.
2. That a thorough inquiry by a Government officer, and a favourable report as to the necessity for the establishment of any new hospital, should be conditions precedent to the granting of Government assistance either to build or maintain that hospital.
  3. That model plans for country and district hospitals be prepared by the Government as guides to local committees in the construction of new hospitals.
  4. That the Government subsidy of £ for £ be continued both in regard to funds collected for the building and equipment and also for the maintenance of hospitals; but that special grants, in cases where no like amount is raised by subscription or otherwise, should not in future be given.
  5. That, as hospitals can, except under very special circumstances, be suitably built and adequately equipped at a cost of £200 per bed, the Government subsidy towards the building fund should not exceed the amount of £100 per bed.
  6. That the Government subsidy should only be granted where it is shown on the report of the inspecting officer that all regulations made by the Government are acted on, and that an efficient system of inquiry as to the pecuniary positions of both in- and out- patients is carried out.
  7. That Government aid be withdrawn from the Silvertown and Bulli Hospitals, and the special attention of the inspecting Government officer drawn to the question of the advisability of the continuance of Government aid to all hospitals in which the average annual cost per bed is exceptionally high.

8. That, in the absence of any local poor-law administration, the Government should provide and maintain, in connection with the asylums for the infirm and destitute, one or more hospitals on the model of the sick asylums under the Poor-law Board in Great Britain; and that, when these are available, the patients sent by the Government to the Sydney and Prince Alfred Hospitals should be only such cases as require special operative measures, or cases of emergency which would be prejudiced by delay in treatment.
9. That the administration of the Coast Hospital be removed from the control of the Medical Adviser to that of the Director of Government Asylums for the Infirm and Destitute; and that the institution be worked in connection with the asylums for the infirm and destitute and the hospitals or sick-asylums above recommended, and that it be utilised—(a) for cases of infectious disease until other provision for these cases is made; (b) for lock cases in men; and (c) for ordinary hospital cases which will not be prejudiced by the journey.
10. That the tram-line be extended to the Coast Hospital from the Botany terminus, and the patients taken by special ambulance conveyances at fixed times.
11. That a lock-hospital for women, with not less than thirty beds, be established in Sydney, and conducted under the Department of Government Asylums for the Infirm and Destitute.
12. That the Government should cease to pay the rent of the buildings occupied as an Ophthalmic Hospital at "Moorcliff" in connection with the Sydney Hospital, on the expiry of the present lease; and that the more chronic ophthalmic cases be treated in one of the hospitals or sick asylums under the Department of Government Asylums for the Infirm and Destitute, and those cases which are of a more acute character, or require operative treatment, in the Sydney and Prince Alfred Hospitals.
13. That the Regent-street Dispensary should be discontinued and the Government grant cease; and that Government assistance should be given in aid of a free dispensary, on the lines of such institutions in the Mother Country, from which patients in destitute circumstances could be treated, either at the institution or at their own homes, by a competent medical staff, and receive the necessary medicines, &c.
14. That all private hospitals be placed under Government supervision, provided for by Act of Parliament, in some such manner as exists in the neighbouring colony of Victoria; and that they only be allowed to continue their work under a license granted after inspection by a competent authority.

To realise the full bearing of the recommendations made in the several Reports, it will, of course, be necessary to read them in the light of the data and arguments on which they are founded.

It has been evident throughout the inquiry that the inspection by a qualified Government official of all charitable institutions subsidised by the State would be productive of many advantages, both to the Government and to the authorities of the institutions; and it will be noticed that in each of our Reports we have recommended the appointment of such an officer, and mentioned the duties he should be required to fulfil.

A matter which calls for special comment is the need for legislative provision dealing in a comprehensive manner with the administration of charity in this Colony. Up to the present time charitable relief has been dispensed, either by the Government itself or by charitable organisations, whose funds collected from the general public have been added to by liberal subsidies from the Government. It seems to us desirable that in any measure for the establishment of local Government throughout the Colony some provision should be made to give to the local authorities a legal position with regard to the dispensing of charitable aid, and power to provide by local or municipal taxation grants towards the support of hospitals and other charitable

charitable institutions now supported entirely by the Government or by subscriptions from the general public. Possibly some such provisions as exist in the "Hospitals and Charitable Institutions Act" of New Zealand, a copy of which is appended hereto, might be made applicable to this Colony.

Another question which needs legislative attention is that in relation to the exercise of some control over the inmates of Government Asylums for the Infirm and Destitute. At present, such inmates, although quite unable to earn their own livelihood, are able to leave at their discretion, and to travel the country as vagrants, and it is a general cause of complaint that they often find their way to hospitals and other charitable institutions, upon which they constitute a heavy burden. In many instances, the State has, in addition, to bear the cost of their conveyance back to the asylums.

Legislation is also required to prevent the importation of blind, deaf and dumb, sick, and other persons, quite unable to earn their own living, and who are likely to become, from the date of their arrival, or soon after, a tax on the finances of the Colony.

Our Commission further empowers us to make inquiries in respect to the administration of grants for the maintenance of Aborigines, and the methods of carrying on Government Charitable Institutions—including the State Children's Relief Department and the Government Asylums for the Infirm and Destitute. The Departments dealing with the Aborigines and State Children are each administered by a board of management appointed by the Government, the members of which act without reward for their services. Of the operations of these Boards the Government is made cognisant through the medium of annual reports, which are submitted by them for presentation to Parliament.

In respect to the Government Asylums, since the issue of our Commission, a close investigation into their administration has been made by the Public Service Board (two members of which are also members of the Commission), and the report of that investigation has been placed in the hands of the Government. In view of these facts, and of the long time over which the work of the Commission has already necessarily extended, and further, as other engagements press heavily upon members of the Commission, we have respectfully to request that we may be relieved of the conduct of any further investigation.

The Commission was appointed on the 10th day of November, 1897, and has therefore been in existence for nearly twenty-three months, during which time 117 sittings have been held.

Before closing, we wish to express our thanks to the gentlemen who, as witnesses, have given us the benefit of valuable knowledge and experience, and aided us in coming to the conclusions which have been submitted in our former Reports and are now here brought together.

We have the honor to be,

Your Excellency's most obedient Servants,

GEO. A. WILSON, President,  
J. BARLING,  
JAMES POWELL,  
CRITCHETT WALKER,  
F. NORTON MANNING, M.D.

WALTER WILSON,  
Secretary.

27/9/99.

## APPENDIX.

1885, No. 46.

AN ACT to provide for the Management of Public Hospitals and Charitable Institutions and, for the Title.  
Distribution of Charitable Aid. (22nd September, 1885.)

BE IT ENACTED by the General Assembly of New Zealand in Parliament assembled, and by the authority of the same, as follows:—

1. The Short Title of this Act is "The Hospitals and Charitable Institutions Act, 1885." Short Title.

This Act shall come into operation on the first day of October, in the year one thousand eight hundred and eighty-five, which shall be deemed the commencement thereof.

2. Nothing in this Act contained shall be deemed to apply to any asylum or institution established for the custody or treatment of lunatic or insane persons, nor to any school or other institution established or maintained under "The Industrial Schools Act, 1882." Act not to apply to lunatic asylums or Industrial schools.

Provided however that the cost of maintaining at an industrial school any child who has become an inmate thereof under subsection one of section sixteen of "The Industrial Schools Act, 1882," by reason of having no means of subsistence, or of the indigent circumstances of its parents, shall be defrayed by the District Board of the district wherein the order for sending the child to an industrial school was made out of moneys available for charitable aid in such district, but no such cost shall exceed a rate of eight shillings a week :

And in case any such maintenance-money shall not be paid by the Board aforesaid, the manager of the school of which such child is an inmate may recover the same from the said Board as a debt due to the said manager :

Provided further that every District Board which pays any money for the cost of maintenance of any inmate of a school as aforesaid shall have the same powers of proceeding against all persons who are liable to contribute for the maintenance of such inmate for the recovery of contributions from such persons for such maintenance as the manager of the school has hitherto had under sections thirty-two to thirty-five, both inclusive, of "The Industrial Schools Act, 1882," and "The Industrial Schools Act 1882 Amendment Act, 1885," which enactments respectively shall be read and construed, *mutatis mutandis*, and shall apply accordingly for this purpose.

3. The counties of Kawhia, Taupo West, and Taupo East are hereby excepted from the operation of this Act. Counties excepted from operation of Act.

The Governor may, by Proclamation in the *Gazette*, bring any of such counties, or any part thereof, under this Act, and create the same part of a district; and may from time to time, by Order in Council, make regulations for the due administration of this Act in the said counties, and for raising contributions therein for institutions and charitable aid in accordance with this Act, and otherwise may do all things necessary in or towards the proper carrying out therein the aforesaid administration.

4. In this Act, if not inconsistent with the context,—

Interpretation.

"Contributor" means a person who in any district subscribes not less than five shillings per annum or ten pounds in one donation towards the funds of a benevolent society, or towards the maintenance of an institution, or for the purposes of charitable aid within such district :

"Contributory local authority" means the Council of a county or borough, or the Board of any road or town district where "The Counties Act, 1876," is not in operation, paying a proportion of the cost or contributing an annual sum towards the maintenance of any institution in any district, or for the purposes of charitable aid in any such district :

"District" means a hospital district constituted under this Act :

"District Board" or "Board" means the Hospital and Charitable Aid Board appointed for a district constituted under this Act :

"Institution" means any hospital instituted for the reception, relief, treatment, and cure of disease, and includes any public establishment instituted for the reception or relief of orphans, aged, infirm, incurable, or destitute persons, or established for any one or more of such objects, or the administration by any body or association of persons of charitable aid :

"Separate institution" means an institution as herein defined, which is separately incorporated under this Act, and has its own separate managers :

"This Act" includes by-laws made under this Act :

"Trustees" means the trustees of a separate institution as herein defined :

When a thing is required to be "publicly notified," or when "public notice" of anything is to be given, it is meant that a notice thereof shall be published in some newspapers circulating in the district in which such thing arises or to which it relates :

Words in this Act referring to a district, institution, society, Board, committee, trustees, or authority shall be construed distributively as applying to each district, institution, society, Board, committee, trustees, and authority to whom or to which the same is applicable.

5. For the purposes of this Act every borough shall be deemed to be included within the territorial area comprised in the description of the county wherein it is situate or to which it is contiguous, although such borough does not actually form part of such county. Boroughs deemed to be included in counties.

In any case of doubt the Governor, by warrant under his hand, shall appoint the county wherein shall be deemed to be included any borough which is on the confines of more counties than one.

DISTRICTS

## DISTRICTS AND DISTRICT BOARDS.

Districts  
constituted.

6. The divisions of the colony described in the First Schedule hereto are hereby constituted hospital districts for the purposes of this Act, and shall be called by the names set over each such description.

When the boundaries of any county comprised in a hospital district shall be altered, such alteration shall operate with respect to any hospital district constituted under this Act, and shall take effect accordingly.

If a new county shall at any time be created the limits whereof extend into more hospital districts than one, the Governor, by warrant under his hand, shall appoint the hospital district wherein such new county shall be deemed to be included.

District Boards  
established.

7. For every such district there shall be a District Board of administration to consist of the following members—namely, one member for every borough and county respectively in the district having less than eight thousand inhabitants, and two members for every borough and county respectively having more than eight thousand inhabitants.

(1.) The said members shall be elected by the Councils of the boroughs and counties on the fourth Wednesday in November in each year, and shall come into office on the first Wednesday in December ensuing next after their election.

(2.) Members shall hold office for one year or until their successors come into office, but failing election by any Council of any borough or county, the Governor may appoint a member or members for such borough or county to hold office until the next yearly election.

(3.) In any county where "The Counties Act, 1876," is not in operation the Chairmen of the Road Boards in such county shall be deemed the County Council for the election of such members.

(4.) If there is not more than one county in any hospital district, then the Chairmen of Road Boards in such district shall elect at least three members of the Board for the district.

Special District  
Boards in certain  
districts.

8. Notwithstanding anything contained in the last-preceding section in the districts hereinafter mentioned the District Boards shall consist of the local authorities and persons or local authorities herein also mentioned respectively; that is to say,—

(1.) Within the District of Coromandel, the Council of the County of Coromandel.

(2.) Within the District of Patea, the Council of the County of Patea, and the Mayor of Patea, together with four members of the Borough Council of Patea, to be selected by the said Council.

(3.) Within the District of Cook, the Council of the County of Cook and the Borough Council of Gisborne jointly.

(4.) Within the District of Waipawa, the Council of the County of Waipawa and the Council of the County of Patangata jointly.

(5.) Within the Districts of Wairau and Picton, the Chairmen of the Road Boards and the Mayors of the boroughs therein respectively.

(6.) Within the District of Inangahua, the Council of the County of Inangahua.

(7.) Within the District of Buller, the Council of the County of Buller and the Mayor of Westport, together with four members of the Borough Council of Westport, to be selected by the said Council.

(8.) Within the District of Grey, the Council of the County of Grey, and the Mayor of Greymouth, together with four members of the Borough Council of Greymouth, to be selected by the said Council.

(9.) Within the District of Ashburton, the Council of the County of Ashburton, and the Borough Council of Ashburton jointly.

(10.) Within the District of Waitaki, the Council of the County of Waitaki and the Mayors of the boroughs of Oamaru and Hampden, together with four members of the Borough Council of Oamaru and two members of the Borough Council of Hampden, to be selected by such Councils respectively.

First Meeting of  
Boards.

9. The Governor shall appoint the day of the first election of every Board and the time and place of the first meeting of the Board, which shall be deemed to come into office at such meeting, and may nominate some member of the Board to preside at such meeting, and may appoint the number of members that shall be necessary to constitute a meeting for the conduct of business.

Chairman.

At such meeting the Board shall elect one of their number to be Chairman, who shall hold office until the coming into office of the Board then next to be elected.

Annual meeting  
of Boards.

10. On the first Wednesday in December, in the year one thousand eight hundred and eighty-six, and thereafter on the same day in every year the Board shall hold its annual meeting; and at such meeting the members of the Board for the previous year shall go out of office, and the members then recently elected shall come into office, and shall there and then elect one of their number to be Chairman, who shall come into office on his election, and hold office until his successor is elected.

Incorporation of  
Boards.

11. Every Board shall be a body corporate by the name of "The [*naming the district*] Hospital and Charitable Aid Board," and shall have perpetual succession and a common seal, and shall be capable in law to hold real and personal property, and do and suffer all things which bodies corporate may do and suffer.

Boards to have  
control of institu-  
tions in district.  
Boards to distri-  
bute charitable  
aid in districts,  
and may apply  
funds for this  
purpose.

12. Except as hereinafter mentioned, in relation to separate institutions, the exclusive superintendence and control of every institution within a district is hereby vested in the Board of such district.

13. The Board shall have the control of the distribution of charitable aid in the district under its direction, and may apply out of the Hospitals and Charitable Aid Fund of the district such moneys as they may from time to time think required for the purpose.

## SPECIAL FUNCTIONS OF DISTRICT BOARDS.

Moneys consti-  
tuting Hospital  
and Charitable  
Aid Fund.

14. For every district there shall be an Hospital or Charitable Aid Fund, consisting of the moneys arising from the following sources:—

(1.) Rents and profits of land and endowments vested in the Board;

(2.) Rents and profits of land and endowments set apart for the benefit of particular institutions which have not become separately incorporated under this Act;

(3.)



- (3.) Voluntary contributions, including donations and bequests;
- (4.) Grants from contributory local authorities;
- (5.) Subsidies from the Consolidated Fund; and
- (6.) All other moneys which may be received by or become the property of the Board under this or any other Act.

15. There shall be issued and paid out of the Consolidated Fund to every Board the following sums during each financial year, for five years, commencing from the first day of April, in the year one thousand eight hundred and eighty-five, that is to say:—

- (1.) Ten shillings for every pound of bequest, but in no case exceeding five hundred pounds in respect of any one bequest;
- (2.) One pound for every pound of voluntary contributions received from any person; and
- (3.) One pound for every pound of contributions received from any local authority, whether voluntary or raised by a general or a special rate.

During each financial year after the said five years, unless the Colonial Treasurer shall be satisfied that the Board has a sufficiency of funds to carry out the administration of this Act during such year, there shall be paid the like sums or such lesser sums as the Colonial Treasurer shall think sufficient.

16. All bequests and devises of property made for the benefit or endowment of any Board or of any institution or separate institution shall be strictly applied in manner directed by the testators respectively; but in the absence of any such direction the proceeds therefrom shall be applied in such manner as the Board shall direct for or towards some permanent improvement of such institution, or the extension of the objects for which the institution is founded.

Pending such application as aforesaid, all proceeds from any such bequest or devise shall be invested in securities issued by the Government of the Colony, or by any local authority under any Act of the General Assembly, or on mortgage of land in New Zealand held in fee-simple, and the interest accruing from year to year in respect of such investments may be applied towards the maintenance of the aforesaid institution.

17. All moneys paid from time to time as subsidies in respect of any bequest or devise shall be deemed to form part of such bequest or devise, and shall be appropriated and applied in the same manner, and not otherwise.

18. The Board shall take all necessary steps for providing funds for the maintenance of any institution vested in them or under their control, or for obtaining means to afford charitable aid, and may appoint persons to collect voluntary contributions or donations for all or any of such purposes, and shall receive and collect from the several contributory local authorities in the district the contributions which they may be required to furnish from time to time.

19. At every institution a book, to be called "The Contributors' Book," shall be kept, in which shall be entered the names and addresses of all persons contributing towards the funds for the support thereof, and the amounts contributed by each person.

20. All moneys arising from any of the sources aforesaid shall be paid into such Bank as the Board may from time to time determine, to an account to be called "The Hospital and Charitable Aid Fund Account," and shall only be paid thereout by cheques signed by the Treasurer, and countersigned by any two members of the Board authorised by them from time to time to sign cheques.

21. The Board shall, as early as possible after first coming into office, and thereafter in every year before the last day of March, ascertain the amount of the expenditure required for the maintenance of the institutions in the district, and for the distribution of charitable aid therein up to the last day of March in the following year; and shall allocate the proportion of such expenditure to be contributed by the local authorities within the district in the manner hereinafter set forth.

22. The Board may, from time to time, by resolution—

- (1.) Divide the district under their jurisdiction into subdivisions for the purposes of this Act, and such subdivisions may comprise one or more counties, together with or without any borough or boroughs contiguous thereto respectively, or any one such county or borough separately;
- (2.) Vary, alter, or abolish any such subdivisions, and constitute others, and also may amalgamate any subdivisions or merge any subdivision or part of a subdivision into another or other subdivisions;
- (3.) Declare what local authorities within the subdivision shall be liable to contribute to the support of the institutions therein, and afford charitable aid in such district, and may also appoint the proportion of the contribution to be made by each such local authority respectively, and the time for the payment thereof.

23. Contributions from each of such local authorities shall be proportioned to the ratable value of the ratable property, as defined in "The Rating Act, 1876," or "The Rating Act, 1882," in the district or subdivision represented by each local authority respectively, as may be provided by resolution of the Board made under the powers herein contained.

24. From the total estimated annual cost of maintaining the institutions in any district or subdivision and of affording charitable aid therein, the Board shall deduct the net annual income estimated to be available for such purposes, and the remainder shall be the total amount to be allocated for contribution by the local authorities in such district or subdivision, less such amount as may be receivable from the Consolidated Fund in respect of such remainder.

25. Any contributory local authority who shall deem the amount of any contribution required of it by the District Board to be unjust may appeal therefrom by transmitting a copy of any resolution expressing their dissent to the Colonial Secretary, who thereupon shall direct an inquiry to be made in the same manner as hereinafter provided in section forty-four in relation to inquiring into objections against incorporation. The said section shall apply *mutatis mutandis*, and the decision of the Commissioners shall be final.

26. Every contributory local authority liable or willing to pay any contribution in aid or for the support of institutions, or for charitable aid, may pay the same out of the ordinary funds at its disposal, or out of any moneys received by way of subsidy, or may, if it thinks fit, raise the required amount by a rate to be struck for that purpose.

Every rate authorised under this Act shall be struck, made, levied, and collected in all respects, and with, under, and subject to the same powers, rights, and authorities in all respects, as such local authority may levy rates for general or ordinary purposes; and one half of such rate may and can be deducted by the occupier from any rent payable by him to the owner of the land and premises occupied by him and so rated.

But nothing in this section shall authorise the levying of any rate on any land ratable under "The Crown and Native Lands Rating Act, 1882."

Provision where "The Counties Act, 1876," is not in force.

Contributions in arrear may be recovered as a debt.

Contributions in arrear may be deducted from subsidies.

Board may apply funds for erection and maintenance of institutions and in providing charitable aid.

Board may establish new institutions.

Board may borrow money for certain purposes.

Board may close any institution which they deem not required.

27. Where "The Counties Act, 1876," is suspended in any county, the Council of such county may set apart any portion of the County Fund for the purposes of this Act, and shall have all the powers in respect thereof that such Council now has to apportion and divide such fund.

28. If any contributory local authority liable to pay any contribution authorised or required to be paid under this Act shall, for a period of one month, neglect or refuse to pay the same after the time prescribed for the payment thereof, such contribution may be recovered by the Board in any Court of competent jurisdiction as a debt due by such local authority to the Board.

29. If any contributory local authority shall fail to pay the required contribution or any part thereof, the Colonial Treasurer, on the application of the Board, may deduct from the subsidies payable to such local authority under any Act or authority a sum equal to the amount prescribed as aforesaid, or such part as may be unpaid, and shall pay the same over to the fund of the district or of the institution in respect of which such failure shall have occurred.

30. The District Board may apply any of the moneys in their hands from time to time in such proportions and in such manner as they shall think fit in and towards the erection and maintenance of any building or institution, with all necessary outhouses and enclosures, for the purpose of being used as an institution under the provisions of this Act, or in and towards the repairs, additions to, or alterations of any existing or future institution or building annexed or belonging thereto, and also in the maintenance and relief, or in contributing to the maintenance or relief, of any indigent, sick, infirm, or aged people, and generally in payment of all charges and expenses incurred by the Board in carrying out this Act.

31. The Board may, from time to time, establish in any part of the district new hospitals or branch hospitals, or other charitable institutions where they may deem them required.

32. For the purpose of erecting new, or for making additions, alterations, or repairs to existing institutions, the Board may, from time to time, borrow money on the security of their income, or of any endowments vested in them, but not belonging to or held in trust for any separate institution.

33. The Board may close any institution vested in them within the district which they may think not expedient to maintain any longer, and shall provide for the distribution of the inmates or other persons receiving relief therefrom respectively among adjacent institutions within the district.

#### UNITED DISTRICTS.

Union of districts for charitable aid.

34. Notwithstanding anything hereinbefore contained, for the purposes of the contribution for and distribution of charitable aid under this Act the separate districts enumerated in the several subsections of this section shall be deemed together to form united districts respectively, and the members of the several District Boards of such separate districts shall together form the Board of such united districts respectively, that is to say,—

- (1.) The North of Auckland District with the Auckland District;
- (2.) The Coromandel District with the Thames District;
- (3.) The Patoka District with the Wanganui District;
- (4.) The Waipawa District with the Hawke's Bay District;
- (5.) The Wairarapa District with the Wellington District;
- (6.) The Inangahua District and the Buller District with the Nelson District;
- (7.) The Ashburton District with the North Canterbury District; and
- (8.) The Central Otago District and the Tuapeka District with the Otago District.

Functions of Board of united district.

35. The Board of an united district, for the purposes aforesaid, and for all purposes incidental thereto,—

- (1.) Shall have all the powers, duties, and functions which, but for this section, would devolve upon District Boards, and shall supersede the District Boards of the separate districts forming part of such united district;
- (2.) Shall be deemed to be incorporated under this Act; and
- (3.) All provisions of this Act, so far as applicable and necessary to give effect to this enactment, shall apply in respect to such Board, and shall be construed, *mutatis mutandis*, as they would apply in respect of the District Board of a separate district.

#### EXISTING INSTITUTIONS.

Institutions subject to Act.

36. The institutions severally enumerated in the Second Schedule hereto shall be subject to the provisions and operation of this Act.

Existing administration to continue temporarily.

Notwithstanding the repeal of the Acts and enactments enumerated in the Third Schedule—

The Committee or other persons or body having the actual charge and management at the time of such repeal of the affairs of any institution mentioned in the Second Schedule shall continue to have the charge and management thereof until the same becomes vested in a District Board or Trustees under this Act.

All officers, medical men, nurses, attendants, and other persons engaged or employed in any such institution, shall be deemed to have been appointed under this Act, and shall continue in office subject to the provisions of this Act.

Institutions to elect whether or not they will be incorporated.

37. The Committee or persons or body aforesaid shall respectively, on or before the fifteenth day of November ensuing next after the commencement of this Act, notify to the Board of the district wherein is situate the institution under their charge or control, whether or not they propose to petition the Governor, in manner as hereinafter next mentioned, for the incorporation of such institution as a separate institution under this Act.

38. At any time within four months after the passing of this Act the aforesaid Committee or persons or body may petition the Governor praying that the institution under their control may be incorporated as a separate institution under this Act, and shall annex to such petition a verified list of the names of not less than one hundred persons who shall have signified their intention to contribute in yearly sums of not less than five shillings an amount of not less than one hundred pounds to such institution, and who shall have paid one year's subscription in advance, or a donation in one sum of not less than ten pounds.

Incorporation to be effected within four months of passing of Act.

A copy of every such petition and its annexes shall be transmitted to the District Board fourteen days at least before the same is presented to the Governor.

39. On the receipt of such petition the Governor may take action under the provisions hereinafter mentioned as if it were a petition of the contributors to an institution, and the said provisions in relation to the incorporation of separate institutions shall apply accordingly.

Future administration to vest in Trustees elected under Act.

If the institution becomes separately incorporated the aforesaid Committee or persons or body shall vacate their offices upon the appointment of the first Trustees of the separate institution.

40. Every institution mentioned in the Second Schedule which does not become or petition to become incorporated as a separate institution within four months from the passing of this Act, and all the estate and interest in any real and personal property belonging thereto, shall be vested in the Board of the district wherein it is situate—

Failing incorporation, institutions to vest in District Board.

- (1.) On the next first day of the month of December, in respect of institutions whereof the persons or body aforesaid shall not have notified their intention to petition for such incorporation;
- (2.) On the first day of February next after the commencement of this Act, in respect of institutions respecting which notification has been given as aforesaid, but which have not become incorporated as aforesaid.

41. Notwithstanding anything contained in the last five preceding sections, any institution mentioned in the Second Schedule may become incorporated as a separate institution under this Act, at any time hereafter, on petition of the contributors thereto, in manner next hereinafter mentioned.

Hospitals may nevertheless become incorporated hereafter.

#### SEPARATE INSTITUTIONS.

42. Any institution supported in whole or in part by the voluntary contributions of not less than one hundred persons, who shall have signified their intention to contribute and have contributed thereto as mentioned in section thirty-eight, may be incorporated as hereinafter mentioned as a separate institution under this Act.

Subscribers to institutions may petition for incorporation.

43. The Governor in Council, on the receipt of a petition signed by not less than fifty of the said persons, praying that such institution may be incorporated, may cause the substance or prayer of such petition to be gazetted, and (if no counter petition, signed by an equal or greater number of such persons, shall have been delivered at the office of the Colonial Secretary within one month after the date of such publication, or if the District Board shall not have lodged with the Colonial Secretary within the same time an objection to such petition), the Governor in Council may declare the contributors for the time being to such institution to be, and they shall thereupon become and continue, a body politic and corporate by the style and title named in the Order in Council, and shall have perpetual succession and a common seal.

Incorporation effected by Order in Council, if not opposed.

A copy of every such petition as aforesaid to be presented to the Governor shall be transmitted by the petitioners to the District Board not less than fourteen days before the same is so presented.

#### Objections.

44. The District Board, on receiving notification from the Committee or persons or body having the actual charge and management of any existing institution, or on receipt of the copy of any petition to the Governor for the incorporation of any institution, may object to such incorporation on the ground that the institution is not necessary, and, if they pass a resolution to that effect, shall transmit a copy thereof to the Colonial Secretary and to the petitioners or intending petitioners, and thereupon all proceedings as to the incorporation of such institution shall be suspended pending an inquiry into such objection.

District Board may object to incorporation, if institution not required.

- (1.) The Colonial Secretary shall thereupon require the District Board and the petitioners respectively to appoint a Commissioner to inquire into the case, and shall appoint some Resident Magistrate residing or having jurisdiction in the district where the institution is situate to sit with the Commissioners aforesaid upon such inquiry. If either party fail to appoint a Commissioner within one month, the Colonial Secretary shall make the necessary appointment.
- (2.) The Commissioners aforesaid shall sit as a Court of inquiry, and shall have the powers of Commissioners under "The Commissioners' Powers Act, 1867," and any Act amending the same, and shall report their decision to the Colonial Secretary, and such decision shall be final.

Inquiry into objection.

If the decision shall be that the institution is not required, then no further proceedings shall be had in respect of incorporating such institution.

If the decision shall be otherwise, then the proceedings for incorporation shall proceed as if they had not been suspended.

45. After such Order in Council as aforesaid, all previous and preliminary steps and proceedings as hereinbefore required shall be deemed to have been duly and properly taken, and no objection whatsoever shall be taken to the incorporation of such contributors, but they shall, under all circumstances, be deemed to be duly and legally incorporated within the meaning of this Act, whether it shall have been complied with or not.

Incorporation deemed valid.

46. Every such incorporated institution as aforesaid shall be governed by not less than six nor more than nine Trustees, to be elected by the contributors for the time being to such institution; together with not more than five other Trustees, who may be elected by the local authorities for the time being contributing to the funds of the institution.

Trustees to be elected.

A local authority shall be deemed to contribute to the funds of a separate institution when it contributes any sum to the District Board for the purpose of the same being paid to the separate institution.

Contributing local authority may elect Trustees.

47. Every contributory local authority which contributes to the funds of a separate institution shall have the power hereinafter declared to elect Trustees of such separate institution.

- (1.) If there are only five local authorities contributing to such separate institution, then each shall elect one Trustee on the date and at the time members of the District Board are elected, and such Trustees shall hold office for one year or until their successors are elected :
- (2.) If there are more than five local authorities contributing, then each local authority contributing not less than one-fifth of the amount contributed by the whole of the local authorities shall elect one Trustee, and the remaining local authorities shall elect as many other Trustees as will make the whole of the Trustees elected by the local authorities number five in all :
- (3.) Each local authority, for the purpose of electing such remaining Trustees, shall have one vote, and an additional vote for every four thousand inhabitants after the first four thousand inhabitants in its jurisdiction according to the Registrar-General's last published Statistics, and the election shall be made by every County and Borough Council respectively, deputing one of its members to meet and elect Trustees, exercising the votes belonging to the local authorities :
- (4.) Such election shall be on the first Monday in December in each year :
- (5.) Any local authority ceasing for twelve months to contribute to the funds of a separate institution shall lose its right to elect or vote in the election of Trustees.

Votes exercisable by contributors.

48. The Trustees may fix the number of votes each contributor, and the representative of each contributory local authority may exercise in accordance with his contribution, or the contribution of the local authority, provided that any person subscribing five shillings shall have one vote, and no person shall be capable of exercising more than five votes.

First meeting of contributors.

49. The first meeting of contributors to any institution shall be held at such time and place as the Governor shall, by public notice, appoint, and at such meeting the contributors shall elect not less than six, nor more than nine, Trustees, and shall transact any other business relating to the institution. There shall be six Trustees elected by the contributors when the number of contributors to the institution does not exceed five hundred, and nine Trustees when the number of contributors exceeds five hundred.

Annual election of one-third of Trustees.

50. On the second Thursday in the month of January, in the year one thousand eight hundred and eighty-seven, and thereafter on the same day in every year the annual meeting of contributors to the institution shall be held; and on the day of such meeting one-third part of the number of Trustees elected by the contributors shall go out of office (but may nevertheless be re-elected), and the persons who shall go out of office shall be those who have been the longest in office without re-election, or, where two or more shall have been in office for the same length of time, then those who shall go out of office shall be determined by lot.

Procedure at elections.

51. Every meeting of contributors shall choose its own chairman, who shall have an original as well as a casting vote in the event of there being an equality of votes; and every question submitted to such meeting shall be decided by a majority of the votes of contributors then present.

Disqualification of voters.

No person shall be qualified to vote at any first or subsequent meeting of contributors for the election of any Trustee to such institution unless he shall be of the full age of eighteen years, and shall have been a contributor to such institution for the space of one week previous to such meeting; but where a contributor shall have paid his subscription for the year immediately preceding the year in which any annual or general meeting shall take place the payment of his subscription for the then current year at any time before such meeting shall entitle such contributor to vote.

Adjourned elections.

52. If at any first meeting or at any annual or general meeting of the contributors to any institution at least ten of the contributors qualified to vote shall not assemble and proceed to business within one hour from the time fixed for the meeting, no election of Trustees shall be made, nor shall any business be done at that time; but in such case there shall be another meeting of the said contributors at the same place and at the same hour of the same day in the second following week, which meeting shall be publicly notified, and at this last-mentioned meeting any number of contributors, qualified to vote as aforesaid, exceeding three shall constitute a meeting.

Extraordinary vacancies.

53. If any Trustee shall die, or resign by letter under his hand addressed to the Secretary of the institution, or become bankrupt or insolvent, or compound with his creditors, or be convicted of any treason, felony, or misdemeanour, or be absent without leave from four consecutive ordinary meetings of the Trustees, or hold any office or place of profit under or in the gift of the Trustees, or be concerned or participate (other than as a shareholder in an incorporated company, or in an association or partnership consisting of more than twenty persons) in any contract with or work to be done for the Trustees, his office shall become vacant, and the remaining Trustees shall declare his office vacant, and temporarily appoint thereto some contributor to such institution, until the next annual meeting for the election of Trustees, when the person thus temporarily appointed shall retire as one of those who are hereby required to go out of office.

Trustees may be elected for several institutions.

54. Nothing herein contained shall be construed to preclude the election of the same persons as Trustees, or to prevent any person from being elected a Trustee, for several separate institutions.

Property of institution to vest in elected Trustees.

55. All the estate and interest in any real and personal property held by the District Board or by any person in trust for any institution at the time of the incorporation thereof, shall be vested in such incorporated institution.

#### SPECIAL FUNCTIONS OF TRUSTEES OF SEPARATE INSTITUTIONS.

Powers of District Board to vest in Trustees.

56. All powers and authorities of the District Board in respect of the management of any institution shall, on the incorporation thereof as a separate institution, be transferred to and vested in the Trustees of such institution as elected under the provisions of this Act.

Moneys constituting the Institution Fund.

57. For every separate institution there shall be an Institution Fund, consisting of the moneys arising from the following sources :—

- (1) Rents and profits of land and endowments belonging to the institution;
- (2) Voluntary contributions, including donations and bequests;
- (3) Grants from the District Board;
- (4) Subsidies from the Consolidated Fund; and
- (5) All other moneys which may be received by the Trustees, or become the property of the institution under this or any other Act.

58. There shall be paid the following sums to each separate institution in the same manner in each year as are payable under section fifteen in respect of institutions under the control of District Boards, and subject as in the said section mentioned; that is to say,—

Annual subsidies.

In respect of the sums received by the Trustees during such year from the sources following:—

- (1.) Ten shillings for every pound of bequests, but in no case exceeding five hundred pounds in respect of any one bequest;
- (2.) One pound for every pound of voluntary contributions received from any person or local authority; and
- (3.) One pound for every pound of grants from the District Boards.

59. The Trustees shall on their first coming into office, and thereafter before the last day of March in each year, ascertain the estimated gross cost of the maintenance of the institutions vested in them, together with the estimated income from all sources of such institution for the twelve months next following, and shall transmit such estimates to the District Board, together with a requisition to such Board for a contribution from the Hospital and Charitable Aid Fund of the district to the amount of the difference between the estimated gross cost of maintenance and the estimated revenue; and the District Board shall make contributions out of the Hospital and Charitable Aid Fund to the separate institutions according to their requisitions.

Trustees to estimate their expenditure, and to apply to Board for grant.

60. If the District Board shall deem the amount of any requisition made to them by the Trustees of any separate institution for a grant to be excessive or otherwise unreasonable, they may appeal therefrom by transmitting a copy of any resolution expressing their dissent to the Colonial Secretary, who thereupon shall direct an inquiry to be made in the same manner as hereinbefore provided in section forty-four in relation to inquiring into objections against incorporation. The said section shall apply *mutatis mutandis*, and the decision of the Commissioners shall be final.

Board may appeal against amount required.

61. The Trustees of a separate institution, with the consent of the District Board, may borrow money on the security of their endowments and income for making repairs, additions, or alterations to the institutions under their control, or to any building annexed or belonging thereto, or may apply to any one or more local authorities for a special contribution towards such purposes; and, in case any local authority shall grant any such contribution, there may be paid out of the Consolidated Fund, in such manner as the Colonial Treasurer, if he agree to such contribution, may from time to time appoint, a special subsidy in aid of the aforesaid purposes not exceeding ten shillings for every pound of special contributions received from any such local authority; but the maximum sum to be granted out of the Consolidated Fund in any one year shall not exceed two thousand five hundred pounds to any one institution.

Trustees, with consent of Board, may borrow money.

#### GENERAL FUNCTIONS OF BOARDS AND TRUSTEES.

62. Every District Board, in respect of the institutions vested in them, and the Trustees of any separate institution respectively, may, from time to time, and subject to the provisions of this Act, make by-laws in respect to all or any of the matters next mentioned, and may from time to time revoke or vary any of such by-laws, that is to say,—

Board and Trustees may make by-laws.

- (1.) For conducting any election where necessary, and regulating all matters connected with any such elections, and for determining the validity of disputed elections:
- (2.) For prescribing what shall constitute a life-membership of any institution:
- (3.) For regulating the admission of patients into any institution, on the nomination or recommendation of contributory local authorities and contributors or otherwise, and of their discharge therefrom:
- (4.) For the maintenance of order, discipline, decency, and cleanliness among the inmates of institutions:
- (5.) For prescribing the duties of the several medical and other officers, nurses, attendants, and servants of any institution:
- (6.) For preventing trespass or intrusion upon the premises of any institution or the grounds attached or belonging thereto:
- (7.) For preventing disorderly behaviour in or upon the premises of any institution by any person:
- (8.) For prohibiting the introduction of any articles whatsoever into any institution, whether or not of food, drink, consumption, or otherwise:
- (9.) For all matters affecting the general management, care, control, and superintendence of any institution:
- (10.) For the affording relief by medicine and attendance to out-door patients, or the administration of out-door relief, and either directly or by means of any voluntary or other association formed for the purpose of providing or aiding in the administration of such relief.

63. All such by-laws shall be printed, and they shall not come into force until a day to be fixed therein, not being less than fourteen days from the date of making the same.

By-laws to be printed and copy posted in conspicuous place in institution.

One or more copies of all by-laws shall, as soon as conveniently may be after the making thereof, and before they come into operation, be affixed and maintained in some conspicuous public place in every institution to which the same relate.

A copy of every by-law when made shall be sent to the Colonial Secretary before the same shall come into operation; and the Governor may at any time disallow any such by-law, but such disallowance shall not affect the validity of anything theretofore done prior to such disallowance.

All the above provisions shall apply to any amendments or alterations of any by-law made under this Act.

64. A printed copy of by-laws, purporting to be the by-laws of any District Board or Trustees respectively, if authenticated by the seal of such Board or Trustees respectively, shall be evidence of such by-laws, and of their having been duly made.

Evidence of by-law.

65. Every by-law repugnant to this or any Act of the General Assembly shall be void.

66. Any by-law may provide a penalty for every breach thereof of an amount which shall be in the discretion of the Justices inflicting the same, and shall in no case exceed five pounds.

By-laws to be consonant with public law. Penalties for breach of by-laws.

67. All penalties under this Act may be recovered in a summary way, as provided by "The Justices of the Peace Act, 1882."

68. Recovery of penalties.

Board or Trustees may appoint officers.

68. The Board and Trustees respectively, may from time to time appoint a Secretary, Treasurer, and such medical men and other officers, nurses, attendants, and servants to assist in the execution of this Act as they shall think proper, and may from time to time remove any of them and appoint others in their stead.

Board or Trustees to regulate their own proceedings.

69. The Board and Trustees respectively may, by ordinary resolution, make, alter, and revoke rules regulating their own proceedings and the general conduct of business; for determining the number of members necessary to form a quorum; and for calling special or general meetings of the Board, Trustees, or of the contributors to any institutions.

#### MAINTENANCE.

Power to make contracts for maintenance, &c.

70. The Board and Trustees respectively may make contracts for the maintenance, care, or attendance of any persons in any institution.

Persons receiving relief liable for same.

71. Every person maintained in or who is in the receipt of relief from any institution, whether the same be supported wholly or partly by public moneys, shall be liable to contribute a reasonable sum towards the same respectively, according to his means.

The Board and the Trustees respectively, or any person authorized by them respectively in that behalf, are hereby authorized to sue for and may recover in any Court of competent jurisdiction such sum as the Court shall think reasonable as a debt due to the Board or Trustees from the person so maintained in or in receipt of relief from such institution.

Near relation liable to contribute.

72. Every person maintained in or who is in the receipt of relief from any institution as last aforesaid who has not sufficient means to pay for the same respectively shall be deemed to be a destitute person within the meaning of the "Destitute Persons Act, 1877," and the provisions of the said Act shall apply accordingly.

Public Trustees to contribute in certain cases.

73. For the purposes of this Act in relation to the maintenance of persons in any institution, or receiving relief therefrom, the Public Trustees shall be deemed to be a near relative of any such persons aforesaid respectively, in the place of their actual near relative who shall have died intestate; and he is hereby authorized and shall contribute out of the estate in his hands of any such intestate person, towards the maintenance of the aforesaid persons respectively in the same manner in all respects as the person so dying intestate would have been liable to contribute had he been alive.

As to relief afforded to persons coming from beyond contributing districts.

74. If an institution under this Act afford relief to any person coming from beyond the contributing districts in which such institution is situated, it shall be lawful for the Trustees or the Board having the control of the institution affording relief to recover from the Board of the district from which such person came the entire cost of such relief, provided that the person has resided in the last-mentioned district at least six months next before he entered the institution from which he obtained relief.

#### CONTRACTS.

Board and Trustees may enter into contracts for carrying out provisions of Act. Signing of contracts.

75. The Board and Trustees respectively may enter into any contract with any person for doing anything which the Board or Trustees may be authorized to do, or which is necessary for carrying out the purposes of this Act.

76. Any contract which, if made between private persons,—

Firstly, must be in writing under seal;

Secondly, must be in writing signed by the parties thereto;

Thirdly, may be made verbally without writing;

When made by the Board or Trustees respectively,—

In the first place shall be in writing under the seal of the Board or of the Trustees, as the case may be;

In the second case shall be signed by two members of the Board on behalf of and by direction of such Board, or by two Trustees on behalf of and by direction of the corporate body of the Trustees;

In the third case may be made verbally without writing by the Board, or any two members thereof on behalf of and by direction of such Board, or by two Trustees on behalf of and by direction of the corporate body of the Trustees.

All such contracts may be varied and discharged in the same manner respectively.

Contracts above £10 to be by public tender.

77. No contract the amount whereof exceeds ten pounds shall, except in case of urgent necessity, be made except after public tender, of which due public notice shall be given, but the Board and Trustees respectively shall not be obliged to accept the lowest or any tender.

Composition upon breach of contracts.

78. The Board and Trustees respectively may compound with any person for such sum of money or other recompense as it or they may think fit in respect of the breach of any contract, or any penalty incurred thereunder, or of any debt or money due to the Board or to the Trustees respectively, whether before or after any action or suit brought for the recovery of the same.

#### REAL AND PERSONAL PROPERTY.

Real and personal property to vest in Board or Trustees.

79. All the estate and interest in any real and personal property belonging to any institution at the time of the commencement of this Act, or held by or vested in any persons in trust for or on behalf of any such institution, and all real and personal property which may hereafter be conveyed, granted, or bequeathed to or on behalf of any such institution—

(1.) Shall be vested in the Board of the district wherein the institution is situate, if such institution is under the control of the Board; or

(2.) Shall be vested in the persons, body, and trustees for the time being administering the affairs of the institution, if such institution is not under the control of the Board.

Saving of debts, liabilities, &c.

80. All such property shall be held, by the Board or Trustees respectively, in whom the same may be vested under this Act, for and upon the same trusts and purposes (subject to this Act) as are now or may hereafter be attached to the same; and subject to any contracts, leases, mortgages, or other debts or charges for the time being affecting it, and the Board or Trustees respectively shall be liable for the payment of such mortgages, debts, or other charges.

81. All contracts, agreements, and securities before the coming into operation of this Act, and entered into or made between any Board, Trustees, or other body or persons having the control or management of any institution, and which immediately before the coming into operation of this Act as aforesaid were in force, shall take effect and may be proceeded on and enforced, as near as circumstances will admit, in favour of, by and against, and with reference to the Board constituted, or the Trustees of the institution elected under this Act.

Contracts agreements, &c., may be enforced by or against Board or Trustees.

Nothing herein shall give to any person any further or better remedy or right than he would have had if this Act had not been passed.

Status of parties not altered.

82. Except as provided in section eighty-eight lands now or hereafter reserved or set apart for the purposes of, or as endowments for any institution may be granted to the Board or Trustees of the institution for which the same has been so reserved or set apart, in the manner provided by "The Public Reserves Act, 1881."

Lands reserved may be granted to Boards or Trustees.

83. Any lands which have been reserved or set apart for any institution prior to the commencement of this Act, may be granted to the Board or Trustees under this Act which or who shall have taken the place of the Board, Trustees, or other body or persons theretofore having the control or management of such institution.

Provisions as to lands reserved previously to Act being brought into force.

84. The Board and Trustees respectively may let any lands vested in them, or any part thereof, not required for immediate use, at such rents and upon such terms and conditions as they shall determine.

Board and Trustees may lease lands.

Any such leases for agricultural or pastoral lands shall be for any term not exceeding twenty-one years, and for town lands or lands used for building purposes be for any term not exceeding forty-two years, to take effect in possession from the time of the execution thereof, and so that an annual rent be reserved, payable at such times or periods as the Board or Trustees respectively think fit:

Or the Board and Trustees respectively may lease any land for any term not exceeding twenty-one years on the condition that at the end of that term the lease may be put up to auction for another term of years, and so on from time to time, the incoming tenant paying to the outgoing tenant the full value of all improvements on the land, such value to be determined by arbitration, as the Board or Trustees may in the lease provide.

85. The leases of all such lands shall be sold by public auction or public tender, and at least two months' notice of such intended sale shall be publicly notified, and all rents and profits derived from such sale of the leases granted in respect thereof shall form part of the fund of the institution to which such lands belong.

Leases to be sold at auction. Application of proceeds.

86. When any lease is for a longer term than twenty-one years, the annual rent reserved by such lease for any period beyond the first twenty-one years shall be an advance at least of fifty per centum upon the annual rent payable under such lease during the last year of the expired twenty-one years: Provided that on no lease shall any premium, fine, or foregift be taken.

Rent to be increased for extended leases.

87. Nothing herein contained shall prejudice or affect any lease already granted or agreed to be granted under powers conferred upon any former trustees.

Saving of existing leases.

The Board and Trustees respectively shall, in respect of any such lease, have and exercise all the rights, remedies, and powers as though such lease had been duly made by the said Board or Trustees to the lessee or lessees therein named.

#### ENDOWMENTS.

88. The Governor in Council shall from time to time, as soon as may be after the coming into operation of this Act, set apart not exceeding in the whole two hundred and fifty thousand acres of Crown lands, in such areas in different parts of the Colony as he shall think fit, as endowments for the purposes of this Act.

Endowments.

(1.) Nine-tenths of the total amount of such endowments shall be allocated amongst the various institutions and separate institutions which shall be subject to the provisions of this Act at the expiration of two years from the day of the passing thereof, and the remaining one-tenth shall be reserved, to be allocated from time to time amongst the institutions which may hereafter be subject to this Act.

Allocation.

(2.) The allocation of the endowments shall be made by the Controller and Auditor-General at the expiration of the two years aforesaid in such manner as he shall think most equitable, having regard to the permanent annual income which the several institutions and separate institutions, amongst which the said endowments are to be apportioned, shall be estimated to be receiving at the time aforesaid, and with the object of aiding such institutions in proportion to their necessities.

No such allocation, however, shall take effect until it has been confirmed, either in its original shape, or as it may be amended by a joint resolution of both Houses of the General Assembly.

(3.) The Governor shall have the same powers as he has in respect of Crown lands generally in respect of the dealing with any such endowments previous to their being allocated under this Act, but so that no disposition of any such endowments shall be made whereby any part thereof shall become absolutely alienated.

(4.) The proceeds to arise from any disposition of the aforesaid endowments shall, until the allocation aforesaid takes effect, be paid into the Consolidated Fund, and shall be paid in each year by the Colonial Treasurer to the several District Boards in the Colony having control of institutions under this Act, and to the trustees of the separate institutions thereunder rateably in proportion to the total amount of subsidies paid out of the Consolidated Fund in such year to such institutions and separate institutions respectively.

Application of proceeds.

(5.) On the aforesaid allocation taking effect, the share of endowments apportioned to each institution and separate institution shall vest in the District Board or Trustees having respectively the control of such institution for the purposes of this Act, but so that no part of any such endowments shall at any time be absolutely alienated, unless it may be otherwise provided by any special or general Act of the General Assembly.

(6.) After the allocation aforesaid is made, the proceeds of the unapportioned one-tenth of the aforesaid endowments shall be paid into the Consolidated Fund, and shall continue to be applied as mentioned in subsection four, until by the establishment of new institutions, or the creation of new separate institutions, the said proceeds shall require to be allocated amongst such institutions last mentioned.

(7.) Except otherwise declared by Act, the endowments may, after allocation as aforesaid, be leased as provided in section eighty-four of this Act.

ACCOUNTS

## ACCOUNTS AND AUDIT.

Board to keep books and accounts.

89. Every Board shall cause books to be provided and kept, and true and regular accounts to be entered therein, of all sums received and paid for and on account of this Act, and of the several purposes for which such sums of money shall have been received and paid, which books shall at all reasonable times be open to the inspection of any of the members of the Board.

Separate accounts shall be kept—

- (1.) Of the rents or profits of any land specially set apart for the endowment of any institution and of the interest or other produce of money or property given or bequeathed thereto, or derived from any other property vested in the Board under this Act; and all such rents or profits, and interest or other produce of money, shall be applied in and for the benefit of such institution, as the case may be.
- (2.) Of moneys granted, voted, collected, or received for any institution or for charitable aid; and such moneys shall only be appropriated to the purposes for which the same shall have been granted, voted, collected, or received.
- (3.) Of the receipts and expenditure of each subdivision of a district, and balance-sheets thereof respectively shall be made up to the same period as the balance-sheet of the entire district.

Books to be balanced.

90. The Board shall cause their accounts to be balanced in every year to the thirty-first day of March in each year, and shall cause a true statement and account to be drawn out of all contracts entered into and of all moneys received or expended by virtue of this Act during the preceding year, and of all available assets of, and of all debts then owing by such Board in respect of the entire district, and of each subdivision thereof.

Accounts to be audited.

91. All such accounts shall be audited by the Controller and Auditor-General, who for that purpose shall have and may exercise all such powers as he has under section thirty-three of the "Public Revenues Act, 1878," in respect of public moneys.

Trustees to keep similar accounts, to be audited by Board.

92. The Trustees of every separate institution shall keep accounts and have the same balanced as hereinbefore provided with respect to Boards, and sections eighty-nine and ninety shall apply for this purpose *mutatis mutandis*, and as if the word "Trustees" had been enacted in place of the word "Board" therein respectively.

All such accounts of Trustees shall be audited by the Board in such manner as they shall direct.

## INSPECTORS.

Governor may appoint Inspectors of Institutions. Visitations by Inspectors. Penalty for obstructing Inspectors.

93. The Governor may from time to time appoint one or more persons, as he shall think fit, to be an Inspector or Inspectors of Institutions under this Act.

94. Every Inspector may, without previous notice, visit any institution at any time he shall think fit; and any person refusing or obstructing any such Inspector in his visitation shall be liable to a penalty not exceeding fifty pounds, to be recovered in a summary way.

Annual report by Inspector to be submitted to Parliament.

95. Every Inspector shall, on or before the first day of May in each year, send a report to the Governor on the condition of the several institutions visited by him within the preceding twelve months, which shall be laid before Parliament, if in session, within a fortnight after the receipt thereof by the Governor, and if not, then as early as may be, when the same is in session. Any Inspector may make special reports to the Governor from time to time, as he shall think fit.

## MISCELLANEOUS.

Penalty for obtaining money from Consolidated Fund by false pretences or misrepresentations.

96. If any District Board or any Trustees at any time by false pretences or by wilful misrepresentation obtain the payment from the Consolidated Fund, or otherwise from the Colonial Treasurer, of any sum in excess of what may be due to them respectively in accordance with the provisions of this Act, every member of the Board and every Trustee respectively, who consents thereto, shall for every such offence be liable to a penalty of two hundred pounds. All moneys so fraudulently obtained shall be deemed to be a debt jointly and severally due to the Queen from each and all of the members of the Board, or from each and all the Trustees respectively, as may be the case, who consented as aforesaid to the obtaining of such moneys.

Actions by or against Board or Trustees.

97. All actions, suits, or other proceedings to be commenced or prosecuted against any institution shall be brought or prosecuted by or against the Board or Trustees respectively who have the management thereof; and all goods, chattels, and effects belonging to any such institution shall be deemed and taken to be the property of the Board or Trustees aforesaid, as the case may be, for all or any of the purposes of any action, suit, or other proceeding.

Repeals.

98. Upon the commencement of this Act every enactment enumerated in the Third Schedule hereto, to the extent therein mentioned, and every other enactment, order, regulation, or agreement previously in force relating to the management or control of any hospital or charitable institution within the operation of this Act, or regulating the distribution of charitable aid in the area comprised within any district, shall be repealed.

If Act deficient Governor may make regulations.

99. Where there is any omission in the Act, or where no provision or no sufficient provision shall, in the opinion of the Governor, be made, the Governor may from time to time make and prescribe all such regulations and orders, either general or applicable to particular cases, only as he shall think fit, for the purpose of facilitating or more effectively carrying into execution the provisions of this Act.



AN ACT to amend "The Hospitals and Charitable Institutions Act, 1885." [17th August, 1886.] Title.

BE IT ENACTED by the General Assembly of New Zealand in Parliament assembled, and by the authority of the same, as follows:—

1. The Short Title of this Act is "The Hospitals and Charitable Institutions Act 1885 Amendment Act, 1886." Short Title.

It shall be read and construed together with "The Hospitals and Charitable Institutions Act, 1885" (herein referred to as "the said Act").

2. The said Act is hereby amended, as follows:—

Amendments of  
Act of 1885.

In section four, the definition of "District" and "District Board" shall be omitted, and the following substituted:—

"District" means a hospital district, or an united district constituted under the said Act, and includes a separate district as defined by this Act.

"District Board" or "Board" includes a Hospital and Charitable Aid Board, a Hospital Board, and a Charitable Aid Board.

"Separate district" means a hospital district which has control of hospitals but not of charitable aid being united to another district for the purpose.

3. Every order heretofore made or hereafter to be made at any place under subsection one of section sixteen of "The Industrial Schools Act, 1882," for commitment of a child as an inmate of an industrial school shall be deemed to have been made within the hospital district wherein such place is situate: And the Board of such district, or the Board of the united district wherein such hospital district is comprised, shall defray the cost of maintaining such inmate at the aforesaid school, whether such inmate was committed to such school at any time before or after the first day of October, one thousand eight hundred and eighty-five.

Maintenance of  
destitute  
children.

Every Board liable as aforesaid,—

- (1.) Which shall not have made provision for the maintenance of children who were committed before the first day of October aforesaid may, under the authority of this section, require a special contribution from the local authorities within the districts under the jurisdiction of such Board, which shall be sufficient to defray the cost of such maintenance for the whole period included between the thirtieth day of November in the last past year and the first day of April in the now next ensuing year. All the provisions of the said Act relating to the levying of annual contributions from local authorities for defraying the cost of charitable aid, and for the recovery thereof if not paid, shall apply, *mutatis mutandis*, for the purpose of levying the special contribution authorised under this section;
- (2.) Shall include the cost of maintaining such children in the annual estimate of the cost of affording charitable aid in the district under its jurisdiction required to be made by such Board on or before the thirty-first day of March in the now next ensuing year, and in every year thereafter.

4. The Board or Trustees respectively having the control of any institution wherein orphan children who have lost both their parents are maintained may appoint any fit person, to be approved by the Colonial Secretary, to be the manager of such institution for the purposes of this section, and may apply to a Resident Magistrate under the provisions of section twenty-eight of "The Destitute Persons Act, 1877," for an order appointing the said manager to have the custody of any such orphan child.

Guardians of  
orphans in  
charitable  
institutions may  
be appointed

- (1.) The Resident Magistrate is hereby authorised to grant such order, notwithstanding any previous order for the maintenance of such child may not have been previously made by him or any other Magistrate under the said Act; and thereupon the guardianship of every child in respect whereof such order is made, shall vest in the manager so appointed.
- (2.) Every manager so appointed shall, as such guardian, have all and singular the powers and authorities over the person over whom such guardianship is exercised which a guardian of the person of an infant appointed by the Supreme Court would have; and shall have and may exercise all the powers and authorities in respect of such person as the manager of any school under "The Industrial Schools Act, 1882," has and may exercise over any inmate of such school as the guardian of such inmate.

With the consent of the only surviving parent of an orphan child, to be expressed to a Resident Magistrate at a private examination to be made by him of such parent, such Magistrate may make a similar order in respect of any orphan child, having one parent surviving, if he shall think fit, and every order so made shall have the same effect as an order made as hereinbefore first mentioned. And upon the making thereof, the surviving parent of the child in respect whereof the order is made shall wholly cease to have any legal control or guardianship over such child so long as the said order remains in force.

Any Resident Magistrate may rescind or vary any order made under this section whether by himself or by any other Magistrate, and may transfer the guardianship of any orphan child from one manager to another appointed as aforesaid, whether of the same or any other institution as aforesaid; and every such order shall remain in force until the person over whom the guardianship is exercised by virtue of any such order or orders shall have attained the age of twenty-one years.

5. Subsection five of section eight of the said Act is hereby repealed.

Repeal.

6. The Governor, by Order in Council, shall, before the month of November ensuing next after the commencement of this Act, and at the same period in every third year thereafter, apportion the representation of the various contributory local authorities in any district on the Board of such district in the proportion to the amount contributed by such local authorities respectively to the Hospital and Charitable Aid Fund thereof during the year ending on the thirty-first day of March previous to the date of such Order in Council, and in proportion to the population of the districts of the various contributory local authorities.

Representation  
on District  
Boards to be  
proportioned to  
amount of con-  
tribution thereto  
by the several  
contributories.

Where a new district is constituted the apportionment, so far as contributions are concerned, shall be made according to the contributions of the local authorities therein to the fund of the district whereof the new district had previously formed a part.

Every apportionment of representation as aforesaid shall be made so that no local authority shall have more than four members on the Board ; and all members so apportioned shall be elected, as provided in section seven of the said Act, in the month of November ensuing next after the date of the Order in Council whereby such apportionment is made.

It shall not be necessary to grant a representative to each contributory local authority, but the local authorities may be grouped and return a member or members for such group.

The Governor shall also have power to adjust the representation of United Boards on the principles laid down regarding the representation of District Boards.

So much of the aforesaid section seven of the said Act as is repugnant to this section is hereby repealed.

Extraordinary vacancies.

7. Extraordinary vacancies may be created in any Board in the same manner as provided by section fifty-three of the said Act in relation to the trustees of a separate institution ; and for this purpose the said section shall apply *mutatis mutandis* in respect to every Board, the word " Board " being read therein in the place of the word " trustees."

If a sufficiency of members be not elected to supply any extraordinary vacancies, the Governor may appoint such persons as he may think fit to the Board, as provided in section seven of the said Act, on failure of election.

Governor may appoint Commissioners where no Board exists.

8. In case all the members of any Board shall resign, so that the functions thereof cannot be exercised, the Governor may appoint any persons as he may think fit as Commissioners to exercise the functions of the Board, and such Commissioners shall be deemed to be the Board of the district for which they are appointed, and shall exercise all the powers and authorities of a Board under the said Act and this Act.

Districts may become united by resolution.

9. Notwithstanding anything contained in the said Act, any two or more hospital districts may, by resolution passed by the respective Boards thereof, become joined into an united district under the said Act. A copy of such resolutions shall be transmitted to the Colonial Secretary, who shall thereupon notify in the *Gazette* the fact of such union, if he approve it, but such union shall not take effect until the first day of April or October next succeeding the gazetting thereof.

Chairman or President an original and casting vote.

10. At every meeting of the Board of any district under the said Act or this Act, or of the Board of Trustees of any separate institution, the Chairman or President of such meeting shall have an original vote, and, in case of an equality of votes on any question, shall also have a second or a casting vote.

Annual subsidies to Boards

11. Section fifteen of the said Act is hereby repealed, and in lieu thereof it is hereby enacted as follows :—

There shall be issued and paid out of the Consolidated Fund to every Board the following sums during each financial year, for five years, commencing from the first day of October, in the year one thousand eight hundred and eighty-six ; that is to say,—

In respect of the sums received by the Board during such year from the sources following :—

- (1.) Ten shillings for every pound of bequests, but in no case exceeding five hundred pounds in respect of any one bequest ;
- (2.) Twenty-four shillings for every pound of voluntary contributions ; and
- (3.) One pound for every pound of contributions received from any local authority.

During each financial year after the said five years, unless the Colonial Treasurer shall be satisfied that the Board has a sufficiency of funds to carry out the administration of this Act during such year, there shall be paid the like sums or such lesser sums as the Colonial Treasurer shall think sufficient.

Every Board which shall not have made sufficient provision for the cost of maintenance of institutions within the district under the jurisdiction of such Board respectively, or the distribution of charitable aid therein, or for both of such objects during the now current year, and until the first day of April in the now next ensuing year, may require a special contribution from the local authorities in such district for the purpose of providing so much of the aforesaid cost as has not been already provided.

All the provisions of the said Act relating to the levying of contributions from local authorities for any of the objects aforesaid, and for the recovery thereof if not paid, shall apply *mutatis mutandis* for the purpose of levying the special contributions authorised under this section.

Annual subsidies to separate institutions

12. Section fifty-eight of the said Act is hereby repealed, and in lieu thereof it is hereby enacted as follows :—

There shall be paid the following sums to each separate institution in the same manner in each year as are payable under the last-preceding section of this Act in respect of institutions under the control of District Boards, and subject as in the said section mentioned ; that is to say,—

In respect of the sums received by the Trustees during such year from the sources following :—

- (1.) Ten shillings for every pound of bequests, but in no case exceeding five hundred pounds in respect of any one bequest ;
- (2.) Twenty-four shillings for every pound of voluntary contributions ; and
- (3.) One pound for every pound of contributions received from any local authority, but only in case such local authority has not received, or is not entitled to, a subsidy in respect of the amount of such contribution.

Advances may be made on account of subsidies.

13. Out of any moneys from time to time appropriated by the General Assembly for the purposes of this Act the Colonial Treasurer may in each year advance to any Board or Trustees under the said Act, in anticipation of its estimated revenue for such year, any sums not exceeding in any case a sum equivalent to the half of the amount of the estimated revenue from all sources exclusive of subsidies.

All sums so advanced to any Board or Trustees shall be deemed to have been paid on account of subsidies, and shall be deducted from the first subsidy thereafter payable under the said Act or this Act to the Board or Trustees receiving such advance.

14. Every District Board constituted under sections seven or eight of the said Act, and the Board of every united district constituted under section thirty-four thereof, out of the district funds under their respective control,—

- (1.) May pay such salaries and general expenses as shall be necessary in and towards the due administration of the said Act within such districts respectively; and
- (2.) May pay the actual cost of the fare by road, railway, or water conveyance incurred by any member of such Board in going to or returning from any meeting of the Board when duly summoned, or in making any official visit of inspection to any institution when appointed to do so by the Board.

Expenses of administration.

15. The provisions of section fourteen shall be construed retrospectively, and be deemed to have been in force from the date of the commencement of the said Act.

Section 14 of this Act retrospective.

16. Every Board mentioned in section fourteen may refund to any local authority any money for travelling expenses of the nature mentioned in subsection two of the aforesaid section, which such local authority may at any time intervening between the commencement of the said Act and this Act have paid to the representative of such local authority on any of the aforesaid Boards, subject, however, that to every application for any such refund, there shall be annexed a statutory declaration under "The Justices of the Peace Act, 1882," made and signed by the Chairman of the local authority making the application to the effect that the said local authority has not been paid, and is not entitled to be paid in respect of the same expenses by any other person, Board, or local authority under any other Act.

As to refund to local authority of expenses paid to its representative.

17. All payments of money made before the passing of this Act to any officer or servant of an institution as a bonus on his retirement from his office or service are hereby validated; but nothing in this section contained shall be construed to authorise any such payments in the future.

Payment of bonus validated.

18. Before any person shall be paid any money for travelling expenses under subsection two of section fourteen, he shall deliver to the Chairman of the Board from which he claims the same a statutory declaration made and signed by him under "The Justices of the Peace Act, 1882," that he has not been paid, and is not entitled to receive any sum in respect of the same travelling expenses from any other Board or Corporation under any other Act.

Declaration before payment of travelling expenses.

19. No person, being the holder of a free pass on a railway, shall be paid any money in respect of expenses for travelling on such railway.

Holders of free passes not to be paid railway expenses.

20. The Trustees of any separate institution may, out of the funds thereof, pay such salaries and general expenses as shall be necessary in and towards the due administration of the said Act in respect of such institution, and may pay to any Trustee the actual cost of the fare by railway, if he is not the holder of a free pass on such railway, or by coach or water conveyance, or by horse, incurred by any such Trustee in going to or returning from any meeting of the Trustees when duly summoned; but not more than five pounds in the whole shall be paid to any Trustee under this section in any one year.

Payment of expenses of separate institutions and of Trustees.

21. Every hospital district under the said Act which becomes united to another hospital district for the purpose of distribution of charitable aid, shall thereafter, in respect of the maintenance of hospitals, be known as a separate district, and the corporate name of the Board thereof shall be changed into "The [naming the district] Hospital Board."

Corporate name of united separate district.

The corporate name of the Board of an united district shall be "The [naming the district] Charitable Aid Board."

On the formation of an united district the Hospital and Charitable Aid Fund of each separate district forming part of such united district shall be called the Hospital Fund; and the fund of the united district shall be called the Charitable Aid Fund.

22. In section fourteen of the said Act all words antecedent to subsection 1 shall be omitted, and the following substituted:—

Division of Hospital and Charitable Aid Fund.

For every hospital district there shall be an Hospital and Charitable Aid Fund, and for every separate district an Hospital Fund, and for every united district a Charitable Aid Fund, consisting respectively of the moneys arising from the following sources:—

23. Any surplus funds not required for immediate expenditure, and remaining at the end of any year in the hands of any Board under the said Act or the Trustees of any separate institution, shall be carried forward to the credit of the succeeding year, in reduction of the amount of contribution to be collected for the expenses of the institution in such year.

Application of surplus funds.

All surplus funds belonging to any institution which, at the time of the passing of this Act, are invested in any manner, shall remain so, and the yearly proceeds of such investments shall be applied towards the current expenses of the institution in reduction of the contributions to be collected for such purpose.

But the Governor, if he thinks fit, may at any time permit such investments to be realised, and the proceeds to be applied in any case of emergency or for such special objects permissible under the said Act as such Board or Trustees may from time to time direct.

And of proceeds from investment.

24. All receipts given by or on behalf of any Board constituted under the said Act shall be exempt from stamp duty.

Receipts exempt from stamp duty.

25. Every Board may from time to time divide the district under its jurisdiction into subdivisions, and also may vary, alter, or abolish any such subdivisions and create new ones; but it shall not be lawful for any Board to dismember any subdivision of a district from such district, and every such severance heretofore made or purported to be made shall be deemed to be illegal.

Board may subdivide district for purpose of distributing charitable aid.

The division of a district into subdivisions shall be for the purposes only of facilitating the levying and collecting contributions from the contributory local authorities in such district, and the distribution of charitable aid therein, or for one or other of such objects.

26. Every Board, according to its respective functions, shall declare what local authorities within the district under its jurisdiction shall be liable to contribute to the support of the institution therein, or to afford charitable aid therein, or both, and shall appoint the proportion of the contribution to be made by

Board to collect contributions on an uniform scale.

by each such local authority respectively on an uniform or equivalent scale throughout the entire district, but proportioned as mentioned in section twenty-three of the said Act; and may appoint the time for the payment thereof. No differential proportion of contributions shall be made in any district.

Section twenty-two of the said Act is hereby repealed.

Board may remit contributions in case of excess.

27. In case any contributions required from local authorities shall prove to be in excess of the actual necessities of the district or united district, the Board of any such district may, by resolution, acquit such local authorities from the payment of any part of such contributions, but every such release shall be made uniformly and to the same degree to all the contributory local authorities in proportion to their respective contributions.

Property-tax Commissioner may levy contributions in districts where no rates levied.

28. If any contribution authorised or required to be paid under the said Act within any part of a district cannot be recovered by reason of the absence of any local authority therein, or by reason of no rates being levied by any local authority therein, and no subsidies being payable under the said Act or any other Act to any such local authority, the Colonial Treasurer, on the application of the Board, and on receiving from it an account of the amount of contribution required from such part of the district, shall send such account to the Property-tax Commissioner. It shall be the duty of the Property-tax Commissioner forthwith upon the receipt of such account to raise, by means of rates upon all ratable property within any such part of a district as aforesaid, the amount stated in such account, together with the amount of the estimated cost of making and collecting such rates.

For the purpose of making and collecting any such rate, the assessment-roll made by the Property-tax Commissioner shall be deemed to be the valuation-roll of the ratable property in the aforesaid part of a district; and the Property-tax Commissioner shall be deemed to be a local body within the meaning of "The Rating Act, 1882," and any Act amending the same or passed in substitution thereof, all the provisions whereof respectively, as the case may be, shall apply to the making and collecting any such rate.

All rates so raised shall be paid to the Board of the district for which they were collected, less the amount of expenses for collecting the same, which shall be paid into the Public Account, and form part of the Consolidated Fund.

Board may appoint local authorities to distribute charitable aid.

29. The Board of any district may appoint any one or more local authorities in the district, or in any subdivision thereof respectively, to distribute or to collect and distribute the charitable aid funds of the Board within the district under the jurisdiction of such local authority, and may from time to time vary or rescind any such appointment in part or in whole.

Dissolution of certain united districts.

30. Subsections one and six of section thirty-four of the said Act are hereby repealed; the North of Auckland District, the Auckland District, the Waikato District, the Nelson District, the Buller district, and the Inangahua District are hereby constituted hospital districts under the said Act, as if they had never formed part of any united district.

Allocation of assets and liabilities.

The Boards of the united districts of the North of Auckland with the Auckland Districts, and of the Inangahua and Buller with the Nelson District, are hereby dissolved; and all the assets and liabilities of the Boards of such united districts at the time of their dissolution respectively shall be apportioned among the Boards of the several districts forming part of such united districts respectively in manner as shall be allocated by such person as the Governor may appoint for the purpose.

This section shall not come into force before the first day of April next after the passing thereof.

Nothing in this section shall affect any moneys or lands specially bequeathed or granted to any institution in the City of Auckland, and such moneys or lands so bequeathed shall not be deemed assets of the Board in the meaning of this section.

Annual subscriptions.

31. In section thirty-eight of the said Act, the words, "in yearly sums of not less than five shillings an amount of not less than one hundred pounds" shall be omitted, and the words following substituted: "in sums of not less than five shillings a yearly amount of not less than one hundred pounds."

Life contributors.

32. The District Board or trustees having the control of any institution may elect any person who gives or has given a donation in one sum of not less than twenty pounds to the institution to be a life contributor thereof; and to have thereby all the privileges of an annual contributor thereto, with the same right of voting at any meeting of the contributors to such institution, and the power of exercising his vote by a proxy given in writing under his hand.

Any person who before the passing of the said Act may have been elected or appointed to be a life governor, director, or subscriber to any former institution, but which now is existing under the said Act, shall be deemed to be a life contributor to such institution under the said Act.

Except as aforesaid, no contributor shall be permitted to vote by proxy.

Limitation of votes.

33. At any election of trustees of an institution every contributor shall have and may give one vote only in respect of each trustee to be elected, anything contained in the said Act notwithstanding.

Election of Trustees of separate institutions

34. Section forty-six of the said Act is hereby repealed, and in lieu thereof it is enacted: Every such incorporated institution as aforesaid shall be governed by not less than six nor more than nine trustees, to be elected by the voluntary contributors for the time being and by the contributing local authorities for the time being to the maintenance of such institution.

If the voluntary contributors contribute in respect of the total amount required for the maintenance of the said institution during the last-preceding financial year,—

- (1.) Less than one-sixth they shall elect two Trustees; and
- (2.) If one-sixth and less than one-third they shall elect three Trustees; and
- (3.) If one-third and less than one-half they shall elect five Trustees; and
- (4.) If more than one-half and less than the total amount they shall elect six Trustees.

The local authorities contributing for the time being to the maintenance of such institution shall elect the remainder of such Trustees, so as to make the total number of Trustees nine.

Definition of contributory local authority.

35. A local authority shall be deemed to contribute to the funds of a separate institution when it contributes any sum to the District Board for the purpose of the same being paid to the separate institution.

36. Sub-sections one and two of section forty-seven are hereby repealed and the following substituted:— Mode of election by contributory local authorities.

- (1.) If there are no more local authorities contributing to such separate institution than Trustees to be elected by them, then each shall elect one Trustee at the time of the first incorporation of the institution as a separate institution, and thereafter at the date and at the time when members of the District Board are elected, and such Trustees shall hold office for one year or until their successors are elected.
- (2.) If there are more local authorities contributing than Trustees to be elected, then each local authority contributing not less than the total amount contributed by the whole of the local authorities divided by the number of Trustees to be elected shall elect one Trustee, and the remaining local authorities shall elect the remaining Trustees to be elected.

37. Section ninety-two of the said Act is hereby amended by the omission of all the words thereof after "audited," and the substitution in lieu thereof of the following: "by the Controller and Auditor-General in the same manner as provided in section ninety-one of the said Act in respect to the auditing of the accounts of Boards." Controller and Auditor-General to audit accounts of Trustees of separate institutions.

38. The cost of every appeal under sections twenty-five and sixty respectively of the said Act, and of every inquiry under section forty-four thereof, shall be defrayed by the party to such appeal or inquiry against whom the decision shall be given; and may be recovered from such party by the Colonial Secretary as a debt due to the Crown; or the amount may be stopped by the Colonial Treasurer out of any subsidy which may at any time be payable under the said Act to such party. Cost of appeals and inquiry to be paid by losing party.

39. Section eighty-two of the said Act is hereby repealed, and in lieu thereof it is enacted as follows:— Reserves and endowments may be granted to institutions.

Except as provided in section eighty-eight of the said Act, lands now or hereafter reserved or set apart for the purposes of or as endowments for any institution may be granted to the Board or trustees of the institution for which the same has been so reserved or set apart, anything contained in "The Public Reserves Act, 1881," to the contrary notwithstanding. This Act shall be deemed to be a special Act for the purpose of making any such grant as aforesaid.



1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

**HOSPITALS FOR THE INSANE.**

(PARTICULARS RESPECTING NURSES AND ATTENDANTS, &c., AT.)

*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

[Laid upon the Table in accordance with promise made in answer to Question No. 1, Votes No. 28, 17 October, 1899.]

Question.

- (1.) Hospitals for Insane controlled by Public Service Board:—Mr. E. M. Clark asked the Colonial Secretary,—
- (1.) To what extent are the nurses, attendants, gardeners, carters, and gatekeepers in the various Hospitals for the Insane controlled by the Public Service Board?
  - (2.) To what extent are they controlled by the Inspector-General of Insane?
  - (3.) What are their hours when performing day duty in summer and winter time?
  - (4.) What are the hours of those who have to perform night duty in summer and winter time?
  - (5.) Will he see that steps are taken to have them placed on a similar footing to the Police Forces, viz., eight hours a day?
  - (6.) Is it a fact that the food served to them is very inferior, and at times they receive no vegetables for months?
  - (7.) Is it a fact that they are obliged to take supper at 4 o'clock in the afternoon, and get nothing more till 7 o'clock next morning?
  - (8.) Will he see that steps are taken to allow them to board themselves?
  - (9.) Is it a fact that the single men attendants are charged £12 a year for their room, which is situated next to where the patients are located, and very often at nights are obliged to get up and attend them when actually off duty?
  - (10.) Will he see that steps are taken to have the £12 a year taken off when they have to sleep in such an unsuitable place?
  - (11.) Why is it that the attendants are charged £15 a year for their rations when they only cost £9?

Answer.

- (1.) The control exercised by the Public Service Board is as regards classification, the salaries fixed for the various grades, the amount of deduction to be made from the salaries, and the number of attendants, &c., to be employed
- (2.) The Inspector-General of the Insane has control of the staff in all other respects.
- (3.) Indoor attendants and nurses,—
  - 6.30 a.m. to 6 p.m. in winter, less 1½ hours for meals.
  - 6 a.m. to 7 p.m. in summer, less 1½ hours for meals.
 Outdoor attendants—
  - 6.30 a.m. to 5 p.m. in winter, less 1½ hours for meals.
  - 6 a.m. to 6 p.m. in summer, less 1½ hours for meals.
- (4.) Night attendants and nurses—
  - 6 p.m. to 6.30 a.m. in winter.
  - 7 p.m. to 6 a.m. in summer.
- (5.) The matter will be considered.
- (6.) It is not a fact.
- (7.) Half of the attendants and nurses have tea at 5 p.m., the remainder at 6 p.m. They cease duty at 7 p.m. In winter the hours are an hour earlier. Provision is made for supper later for anyone who desires it.
- (8.) The matter will receive consideration.
- (9.) The charge for the single attendants' rooms is £10 per annum, and this includes their share of dining-room, sitting-room, and other accommodation. They are very rarely indeed aroused at night to attend patients, but are required to do so if necessary.
- (10.) The matter will be considered.
- (11.) The actual cost of provisions varies according to the rates at which the contract happens to be taken, and the £15 charged, which also includes fuel, is a fair average. At present contract prices the actual cost of articles of diet is £14, and the cost of fuel, cooking, &c., added to this exceeds £15.





1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## HOSPITAL FOR INSANE, PARRAMATTA.

(PAPERS IN CONNECTION WITH THE CASE OF MRS. CHARLOTTE DOUGLASS, LATE CHARGE NURSE AT.)

Printed under No. 14 Report from Printing Committee, 19 December, 1899.

### The Public Service Board to The Attorney-General.

Case of Mrs. Charlotte Douglass, late Charge Nurse, Hospital for the Insane, Parramatta.

Public Service Board, 50, Young-street, Sydney, 16 October, 1899.

THE Public Service Board desire to bring under the notice of the Government the following case:—

Mrs. Charlotte Douglass, formerly Charge Nurse, Hospital for the Insane, Parramatta, was employed from 1st April, 1860, to 28th February, 1869, when she resigned. She was re-appointed on 15th January, 1879, and served until 31st July, 1898, when, having reached the age of 62 years, she applied to be allowed to retire. The application was approved by the Governor and Executive Council. She had elected in terms of section 57 of the Civil Service Act of 1884 to contribute to the Superannuation Fund, and had paid such contributions from 1st May, 1887. In accordance with the opinion of Mr. Attorney-General Barton, dated 8th December, 1893, her term of service was allowed only from the date of such admission as a contributor, and she was allowed under section 49 a gratuity at the rate of one month's pay for each year of service, amounting to £77 18s. 4d.

The Inspector-General of the Insane now represents that Mrs. Douglass was at the time of her retirement in good health, and capable of rendering satisfactory service for some time, and that her retirement would not have been asked for but for the assumption that she would have received a pension. He therefore recommends her case for special consideration.

As it appears that Mrs. Douglass was induced to retire on the assumption that she was entitled to a pension, the Public Service Board, in view of the representations of Dr. Sinclair, desire to submit the matter for the consideration of the Government, with a view to her re-employment in her former Department.

GEO. A. WILSON, }  
J. BARLING, } Members of the  
T. A. COGHLAN, } Public Service Board.

Submitted.—H.P., 19/10/99. The Chief Secretary.—B.R.W., 24/10/99. Papers with 99-15,007, P. S. Board, 27th Aug., '98. The Principal Under Secretary.—H.M. (for Sec.), B.C., 24 Oct., '99.

See also Attorney-General's minute, dated 1st Nov., '99:—"It is not quite clear whether Dr. Sinclair approves of the re-appointment of this lady. *Prima facie*, it seems undesirable to appoint a lady of the age of 62 or 63 to have charge of insane patients.—B.R.W., 1/11/99."

The Principal Under Secretary.—H.P., 3/11/99. Retd.—C.S.O., 4 Nov., '99. Refer to Dr. Sinclair.—C.W., B.C., 7/11/99.

The re-employment of this nurse is not desirable, the same conditions as led Dr. Manning to recommend her retirement being present. She was capable of rendering good service at the time she retired, but it would be impossible to make the conditions exactly the same as then, and satisfactory service could not now be expected. The case is one in which compensation, not employment, was recommended by me, as it is clear that she was led to expect a pension on retirement.—ERIC SINCLAIR, 13/11/99. The Principal Under Secretary.

Retd.—C.S.O., 14 Nov., '99. Submitted.—C.W., 15/11/99. The Attorney-General may probably wish to read the minute by Dr. Sinclair.—J.S., 15/11/99. Resubmit to P. S. Bd.—B.R.W., 16/11/99. The Secretary to the Public Service Board.—H.P., B.C., 17/11/99.

## The Public Service Board to The Attorney-General.

Case of Mrs. Charlotte Douglass, late Charge Nurse, Hospital for Insane, Parramatta.

Public Service Board, 50, Young-street, Sydney, 24 November, 1899.

THERE appears to the Public Service Board to be some misapprehension in regard to the circumstances of this case, the papers regarding which have been again referred to them by the direction of the Honorable the Attorney-General.

The circumstances in connection with Mrs. Douglass's retirement, shortly recapitulated, are as follows:—

This lady was employed in the Lunacy Department from the 1st July, 1860, to the 28th February, 1869, when she resigned. She was re-appointed on the 15th January, 1879, and served until 31st July, 1893, when, having reached the age of 62 years, she applied to be allowed to retire, apparently on representations made to her by Dr. Manning that she was entitled to receive a pension. She had elected, in terms of section 57 of the Civil Service Act of 1884, to contribute to the Superannuation Fund, and had so contributed from the 1st May, 1887.

When her retirement had been effected by the Executive Council the papers were forwarded to the Board in accordance with the usual practice, with a view of having the superannuation allowance computed by the Actuaries. It was then pointed out that under the opinion of Mr. Attorney-General Barton of December, 1893, her service for superannuation purposes could only legally be counted from the date she commenced to contribute to the fund, viz, 1st May, 1887, and therefore, as such service did not amount to fifteen years, she could not be allowed a pension, but only one month's pay for each year of service from the date of commencing to contribute before mentioned, and a recommendation to that effect was made by the Board.

This was fully explained to Mrs. Douglass. Dr. Sinclair, who in the meantime had succeeded Dr. Manning as Inspector-General of Insane, also saw the Board on Mrs. Douglass's behalf, and the legal difficulty in the way of granting a pension was explained to him.

The case appeared to the Board to be one of considerable hardship, but inasmuch as the law on the subject seemed to be clear, the Board could not recommend the payment of a pension. They therefore determined to submit a statement of the circumstances of the case to the Government, with a suggestion that as Mrs. Douglass had left the Service under the inducement of the head of her Department that she would be allowed a pension, which, however, was not the case, the Government might consider it desirable to re-employ her in her former Department. The Board, in making this suggestion, had before them the memorandum of Dr. Manning of the 19th September, 1889, which is with the papers, in which he states:—

"I believed that she (Mrs. Douglass) was entitled to a pension, and had carried out all the requirements with regard thereto, or I should not have taken steps to obtain her retirement, as she was physically fit for several years until she attained the age of 65."

Dr. Manning also states that one of the grounds on which he recommended her retirement was that, although a most trustworthy and excellent woman, her defective education placed her in a difficult position with regard to the nurses under her—she being a Charge Nurse, having the supervision of other nurses.

The Board made no statutory recommendation for her re-employment—indeed they have no power to do so, the appointment of lunacy officers of this class being entirely vested in the Inspector-General of Insane.

From the report appearing in the *Daily Telegraph* this morning of the debate which took place in the Legislative Assembly last night on the Public Service Act Amendment Bill, it appears to the Board that the Honorable the Attorney-General cannot be fully acquainted with the facts of the case as herein set forth.

As the statement in the paper referred to gives an altogether erroneous impression of the action which they have taken, they trust that Mr. Wise will, in justice to them, see his way to make the necessary correction, and to put the matter in its proper light before the House at the earliest possible moment.

GEO. A. WILSON, } Members of the  
J. BARLING, } Public Service Board.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## HOSPITAL FOR THE INSANE, KENMORE.

(REPORT RESPECTING THE CASE OF THOMAS ARRAGON, LATE A PATIENT IN.)

*Printed under No. 14 Report from Printing Committee, 19 December, 1899.*

The Inspector-General of the Insane to The Principal Under Secretary.

Lunacy Department, Inspector-General's Office, Gladsville,

15 November, 1899.

Sir,

I have the honor to enclose report from the Medical Superintendent of the Hospital for the Insane at Kenmore on the case of Thomas Arragon, late a patient in that hospital, as to which comment has been made in the Legislative Assembly.

It appears that Arragon was sent by a Police Magistrate to Kenmore, and not brought by his friends, and that during the ten months of his stay there none of them visited or inquired about him. Consequently, when the mental illness had passed away, and he was in a state to be discharged, the hospital authorities were not aware that his friends were in a position to support him, or were desirous of doing so, and as his advanced age, 68, and the mental dulness resulting from the severe attack of mania precluded his working for a living, they recommended his transfer to Rookwood.

According to a rule of the Department, however, the friends should have been communicated with, and given the option of removing the patient, and the omission to do so in this instance cannot be excused.

It is recognised that friends have a right to be informed of changes in the condition of patients, or of their proposed discharge or transfer, and every care should be taken to write to them at the earliest opportunity. I have taken steps to prevent the recurrence of similar neglect in the future at any of the hospitals in this Department.

I have, &amp;c.,

ERIC SINCLAIR,

Inspector-General.

[Enclosure.]

Lunacy Department, Hospital for the Insane,

Kenmore, near Goulburn, 6 November, 1899.

Sir,

In reply to your inquiry with reference to the case of Thomas Arragon, who was admitted into this institution on the 8th December, 1898, I have the honor to report that he was sent from Adelong, by order of the Bench of Magistrates, on the 5th December, 1898. He was described as a labourer, 68 years of age, unmarried, and was certified to be suffering from the delusion that he was at that time resident in Ireland, and not in New South Wales, and that his brother had dispossessed him of certain money and documents.

Under care and treatment he remained for some months in practically the same mental condition as when admitted, chafing, somewhat, at his detention, but was at no time demonstrative or troublesome, although later his morbid ideas concerning his habitat and his brother appeared to fade in intensity and eventually to subside altogether. His state of mind at this stage was one of simple mental enfeeblement, due to the antecedent attack of insanity, increasing age, and infirmity.

Under these circumstances, it was decided, after careful consideration of his case in all its bearings, that there was not sufficient reason for his further detention in a hospital for the insane, and as there was no doubt of his unfitness to earn a living by his own efforts, arrangements were made for his transfer to an institution more suited to his condition.

It is, as you are aware, an invariable rule in the Department under your control to consult the friends when any change in a patient's residence is contemplated, irrespective of whether such friends contribute towards maintenance in the hospital, and in the present instance this should have been done. By an oversight, however, the address-book was not consulted, and as no one had visited the patient or made inquiry concerning him during the period—ten months—in which he was resident here, the mistake was made of supposing that he had no relatives sufficiently interested to assume the responsibility of caring for him. Unfortunately, also, the fact escaped notice that his brother was contributing towards his maintenance at the rate of £12 per annum.

After his transfer to Rookwood, his relatives wrote making inquiry concerning his whereabouts, and in the reply sent the facts were explained, and regret expressed that any pain or distress should have been caused by the failure to notify them when the transfer of the patient was proposed.

I have, &amp;c.,

CHISHOLM ROSS,

Medical Superintendent.

The Inspector-General of the Insane.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## COAST HOSPITAL, LITTLE BAY.

(REPORT FOR 1898.)

*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

The Chief Medical Officer of the Government to The Principal Under-Secretary.

Sir,

Sydney, 9 August, 1899.

I have the honor to submit, for information of the Chief Secretary, my Annual Report on the working of the Coast Hospital at Little Bay for the year 1898, to which the usual statistical returns are appended.

2. The number of patients remaining in on December 31st, 1897, was 207; 2,487 were admitted during the year—the total number under treatment thus having been 2,694. Of the total, 2,341 were discharged, while 145 died; the mortality was, therefore, 5·8 per cent. The average daily number of occupied beds for the year was 231·6, being an increase of 7·2. The annual cost per bed was—for maintenance and treatment, £62 11s. 5½d., for the ambulance service, £6 2s. 5½d., and for repairs, £2 3s. 5½d.; total, £70 17s. 4½d. The gross expenditure for the year was £16,415 Gs. 8d.

3. The number of infectious cases in isolation was 766; and the number of kinds of disease which require isolation from each other, and from other patients, represented among that number of patients, was 10. This was an increase on the corresponding figures for previous years, and was due to rather severe epidemics of measles and of scarlet fever as well as (in a less degree) of diphtheria. The work thus done towards the prevention of such diseases is no doubt good as far as it goes; but I would point out that the distance at which the hospital stands from the inhabited area, which has ever been a ground of complaint with the poor who find it difficult to visit their relatives while they are under treatment, must militate especially against its efficiency as a means of limiting the spread of infectious diseases which attack young children chiefly. From this point of view it may perhaps be questioned whether the preventive results attained are commensurate with the cost incurred. The buildings used for isolation purposes are unsuited to them in construction and arrangement, and cases have arisen which gave ground for inquiring whether the infection had or had not been received from other patients already in isolation.

4. It will be noticed that the annual cost per occupied bed exceeded that for 1897 by more than £13. More than £5 of this amount is due to appointment to the nursing staff of 9 extra nurses, and to the serving staff of 2 extra servants, in order that this part of the staff might be given fifty-two clear days leave in each year; and in a lesser degree to appointment of 3 extra members to the ambulance and office staffs, made necessary by increase in the general business of the institution. The greater part of the remaining £8 or £9 appears under the heading "provisions," among which more than £3 a head for fresh fish stands out prominently. As to the increase under this heading in general, I point out that, for half of the year under review, the duties of Medical Superintendent were taken by a gentleman temporarily appointed to them; and, although he performed them at least as well as could be reasonably expected, that it was scarcely possible for a stranger to the institution and to hospital management to grasp its details with the clearness, and to administer a business concerning more than 300 persons, with the firmness, which are essential to strict economy. But the large sum expended on fresh fish was due, primarily, to the price at which it was supplied under the existing contracts, viz., 1s. 2d. a pound; though in a lesser degree to the number of patients (40) who daily drew a ration of fish—a number which, again, might probably have been reduced had a much stricter supervision been available.

5. The Medical Superintendent (Dr. R. U. Russell) was removed by promotion on 19th July, and his duties were discharged to my satisfaction thenceforward by Dr. J. N. E. Maclellan, temporarily appointed to the post. The posts of house-surgeon were filled as follows by the undermentioned graduates of the University:—From January 1st to end of the year, by Dr. Robert Dey; from January 1st to March 31st, by Dr. Robert Farrell; from April 1st to December 31st, by Dr. P. G. Cooley. Miss M'Master continued in the post of matron, and Mr. Willman in that of clerk and storekeeper. I have pleasure in drawing attention to the efficiency with which the officers and members of the permanent staff in general performed their duties during the year.

I have, &amp;c.,

J. ASHBURTON THOMPSON,  
Chief Medical Officer of the Government.

## APPENDIX A.

TABLE No. I.—General Statement showing Total Admissions, Transfers, Discharges, Deaths, Average Daily Number, and Average Stay of each Patient for the Year ending 31st December, 1898.

Remained in from previous year			Admitted.			Discharged.			Transferred.					Died.			Average Daily Number.	Average Stay in Hospital (Days.)	Remaining in Hospital.
Male.	Female.	Total.	Male.	Female.	Total.	Well.	Better.	Unchanged.	To Government Asylums.	To Public Hospitals.	To Hospitals for Insane.	To Convalescent Homes.	To Lazaret.	Removed by Friends.	Buried in Hospital Cemetery.	Mortality.			
141	66	207	1,566	921	2,487	1,949	314	29	18	19	6	3	3	82	63	5·8	231·6	31·4	208

TABLE No. II.—Showing the Channels through which the Patients admitted during the year 1898 reached the Hospital.

	Hospital Admission Dept.	Chief Medical Officer.	Medical Superintendent.	Total.
Number of patients .....	1,113	1,008	366	2,487

TABLE III.—Showing Admissions and Deaths of General Cases during the year 1898, distributed under sex and age.

	0-5.		5-10.		10-15.		15-20.		20-30.		30-40.		40-50.		50-60.		60-70.		70-80.		80-90.		90-100.		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Admissions ...	41	43	42	34	34	20	59	38	309	89	256	56	218	55	105	24	57	10	33	4	1	...	...	...	1,558
Deaths.....	7	6	2	...	...	1	1	2	5	3	9	8	21	7	14	1	4	2	7	...	...	...	...	...	100

(Average stay in hospital, 24·8 days; mortality per cent., 6·4.)

TABLE IV.—Showing the number of Typhoid Fever admissions and deaths within the year 1898, distributed under sex and age.

	0-5		5-10		10-15		15-20		20-30		30-40		40-50		50-60		60-70		Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Admissions.....	3	3	8	13	26	19	18	6	11	25	14	3	7	3	2	2	..	...	163
Deaths .....	1	...	...	1	2	1	1	1	1	6	1	1	1	1	...	...	...	...	18

(Average stay in hospital, 35·3 days; mortality per cent., 11·04.)

TABLE V.—Showing Districts from which cases of Typhoid Fever were admitted during the year 1898.

District.		Admissions	Deaths.	District.		Admiss.ons.	Deaths.
<b>METROPOLIS—</b>				<b>SUBURBS—</b>			
Sydney .....		23	2	Alexandria .....		4	...
				East		8	2
				Central		3	...
				Waterloo .....		10	3
				Redfern .....		10	4
<b>SUBURBS—</b>				Ashfield .....		6	...
Northern	North Sydney .....	5	1	Western		5	...
	Leichhardt .....	16	...	and		2	...
North	Annandale .....	4	...	Southern.		5	...
Western	Glebe .....	9	1	Burwood .....		1	...
	Balmain .....	5	1	Lewisham .....		1	...
	Erskineville .....	6	2	Five Dock .....		1	...
	St. Peter's .....	15	1	Woollahra .....		2	...
West	Camperdown .....	1	...	Eastern		4	...
Central	Newtown .....	6	...	Randwick .....		3	1
	Marrickville .....	4	...	Paddington .....		1	...
	Canterbury .....	10	...	Address not fixed .....		1	...
				Total .....		163	18

TABLE VI.—Showing Districts from which cases of Infectious Disease (other than Typhoid Fever) were admitted during the year 1898; with number of admissions and deaths.

Locality.	Scarlatina		Diphtheria.		Measles.		Erysipelas.		Scarlatina and Diphtheria.		Scarlatina and Measles.		Diphtheria and Measles.		Scarlatina and Erysipelas.		Enteric and Scarlatina.		Measles and Erysipelas.	
	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Ad- missions.	Deaths.
Sydney .....	61	1	4	1	170	11	21	...	7	...	4	...	...	...	1	...	...	...	1	...
Glebe .....	23	1	2	1	13	...	5	...	3	...	...	...	...	...	...	...	...	...	...	...
Camperdown ..	10	...	...	...	23	...	3	...	...	...	1	...	...	...	...	...	...	...	...	...
North Sydney ..	25	...	...	...	8	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Botany .....	8	...	1	...	14	...	3	...	4	...	3	...	...	...	...	...	...	...	...	...
Randwick .....	6	...	2	...	22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Paddington.....	21	...	...	...	5	...	1	...	3	1	...	...	...	...	...	...	...	...	...	...
Newtown.....	7	...	2	...	12	1	2	...	...	...	1	...	1	...	...	...	...	...	...	...
Redfern .....	7	...	1	...	8	...	6	1	3	1	...	...	...	...	...	...	...	...	...	...
Leichhardt .....	15	...	...	...	2	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...
Ashfield .....	16	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Country .....	7	1	1	...	6	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Waverley .....	14	1	1	...	1	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...
Woollahra .....	3	...	...	...	7	...	2	1	1	...	...	...	...	...	...	...	...	...	...	...
Balmain .....	7	...	...	1	3	...	...	...	3	...	4	...	...	...	...	...	...	1	...	...
Marrickville ..	8	...	...	...	2	1	1	...	...	...	...	1	1	...	...	...	...	...	...	...
Alexandria .....	6	...	1	...	2	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Erskineville ..	5	...	1	...	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not fixed .....	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Burwood .....	5	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Kogarah .....	6	...	2	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...
Enfield .....	5	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...
Hunter's Hill ..	1	...	4	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Willoughby .....	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mosman .....	2	...	...	...	4	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Strathfield .....	3	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Waterloo.....	2	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...
Petersham .....	2	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Concord .....	2	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Annandale .....	1	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
St. Peter's .....	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Rockdale .....	1	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Manly .....	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Lane Cove .....	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Canterbury.....	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hurstville .....	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Total .....	291	5	25	3	818	15	70	2	41	2	15	...	2	1	1	...	2	...	1	...
Mortality .....	1.7 %		12 %		4.7 %		2.8 %		4.8 %		0.00 %		50 %		0.00 %		0.00 %		0.00 %	

TABLE VII.—Working expenses of the Coast Hospital for the year 1898.

1898.	Total.	Average per head per annum.
<b>MAINTENANCE AND TREATMENT OF PATIENTS.</b>		
Salaries:—	£ s. d.	£ s. d.
Hospital Staff .....	3,883 16 7	16 15 4½
Provisions:—	3,883 16 7	16 15 4½
Meat .....	792 19 10	3 8 5½
Bread .....	663 6 3	2 17 3½
Butter .....	457 19 1	1 19 6½
Vegetables.....	626 1 11	2 14 0½
Potatoes.....	156 8 11	0 13 6
Groceries .....	1,370 16 9	5 18 4½
Milk and Ice .....	1,422 18 5	6 2 10½
Eggs .....	521 9 1	2 5 0½
Poultry .....	83 18 6	0 7 3
Wine, Beer, and Spirits ..	390 18 4	1 14 8½
Fish .....	666 16 2	2 17 6½
Fruit .....	65 3 10	0 5 7½
Sundries—	7,224 17 1	31 3 10½
Drugs and disinfectants ..	954 11 9	4 2 5
Fuel and lighting .....	678 1 2	2 18 6½
Water rates .....	337 3 6	1 9 1½
Drapery, bedding, uniforms, &c.....	668 11 2	2 17 8½
Ironmongery.....	342 18 9	1 9 7½
Brush, glass, and crockery-ware.....	118 1 10	0 10 2½
Coffins .....	45 0 0	0 3 10½
Stationery, printing .....	77 10 7	0 6 8½
Petty expenses .....	162 17 7	0 14 0½
Total Maintenance and Treatment of Patients ..	14,493 10 0	62 11 5½
*Ambulance—		
Salaries .....	529 0 0	2 5 8
Forge .....	463 3 4	1 19 11½
Repairs, remounts, &c.....	426 6 1	1 16 9½
Repairs—	1,418 9 5	6 2 5½
Salaries .....	410 0 0	1 15 4½
Materials, &c.....	93 7 3	0 8 0½
Total .....	16,415 6 8	70 17 4½

\* In Ambulance computation three nurses are charged.

TABLE VIII.—Statement of the Total Expenditure, Coast Hospital, 1898.

Expenditure.	Amount.	How Paid.	Amount.
	£ s. d.		£ s. d.
To working expenses, as per Table VII .....	16,415 6 8	By amount paid from Vote of Chief Medical Officer of the Government .....	14,109 18 11
„ additions to Infectious Fever Ward, Nurses' new quarters, laundry, fumigating chamber, and supplying stores by Government Architect.....	4,494 6 4	„ amount paid from Vote under control of the Works Department .....	4,494 6 4
„ proceeds of sale of horses, bones, fat, &c., paid into Treasury .....	36 15 5	„ amount paid from Stores Vote .....	2,581 2 6
„ value of stores, and services, transferred to Leper Lazaret .....	284 8 6	„ amount paid by Government Printer .....	45 9 2
Total.....	£ 21,230 16 11	Total.....	£ 21,230 16 11

TABLE IX.—Special Return showing the number of Wards, together with cubic space and number of beds in each ward, 1898.

Ward	Cubic Space.	No. of Beds.	Cubic space per Bed.	Ward.	Cubic Space.	No. of Beds.	Cubic space per Bed.
	feet.		feet.		feet.		feet.
Phthisis.....	11,424	11	1,038	11.....	24,420	28	872
1.....	22,692	23	986	12.....	19,320	23	839
2.....	11,632	13	897	13.....	20,160	23	876
3.....	12,792	13	984	14A.....	6,608	12	550
4.....	12,792	13	984	14B.....	13,216	16	826
5.....	23,064	21	1,098	Menses.....	2,880	4	720
6.....	11,532	12	961	Observation Rooms (2).....	2,880	4	720
7.....	11,532	12	961	Strong Rooms (4).....	3,780	4	945
8.....	23,064	22	1,048	Totals.....	259,272	286	17,043
9.....	12,792	13	984				
10.....	12,792	14	913				

TABLE X.—General Statement of the working of the Hospital from January 1st to December 31st, 1898.

	Males.	Females.	Total.
Number of beds available for ordinary patients .....	143	84	227
„ „ cases of infectious disease.....		59	59
Total accommodation .....			286
Number of inmates remaining in hospital on December 31, 1897.....	141	66	207
„ admitted during the year 1898 .....	1,566	921	2,487
Total treated .....	1,707	987	2,694
Discharged—Cured .....	1,193	756	1,949
„ Relieved .....	235	82	317
„ Unrelieved .....	52	23	75
Died .....	88	57	145
Total number discharged, or who died .....	1,568	918	2,486
Remaining in hospital on December 31, 1898 .....	189	69	208
Average daily number resident .....	231.6		
Average residence of discharged patients in days.....	31.4		
Rate of mortality on cases treated .....	5.8 per centum.		
Total cost of maintenance and treatment of indoor patients .....	£16,415 6s. 8d.		
Average cost of patients per annum .....	£70 17s. 4½d.		
	Males.	Females.	Total.
Outdoor relief—	Sexes not recorded.		2,400
	Hospital Staff (excluding the Male General Staff).		Number.
Medical Superintendent and 2 House Surgeons.....			3
Matron.....			1
Head Nurse.....			1
Senior Nurses .....			5
Nurses .....			5
Junior Nurses .....			8
Probationary and Temporary Nurses .....			27
Nurses training for Midwifery (if any) .....			1
Wardmen .....			1
Total.....			51



TABLE XI.—Return of the Number of Persons under Treatment, the Order of Disease for which they were treated, and the Number of Deaths in each Order during the year 1898. (Including cases brought forward from previous year.)

COAST HOSPITAL.	Discharged during the year.				Remaining in on 31st December, 1898.	Total.	COAST HOSPITAL.	Discharged during the year.				Remaining in on 31st December, 1898.	Total.
	Cured.	Relieved.	Unrelieved.	Died.				Cured.	Relieved.	Unrelieved.	Died.		
<b>CLASS 1.—SPECIFIC FEBRILE OR ZYMOTIC DISEASES.</b>						<b>CLASS 6.—LOCAL DISEASES.</b>							
<i>Order 1.—Miasmatic Diseases.</i>						<i>Order 1.—Diseases of the Nervous System.</i>							
Chicken-pox	1				1	Inflammation of Brain or its Membranes.	1				1		
Measles	297			15	318	Apoplexy					2		
Beri Beri		7		1	8	Hemiplegia, Brain Paralysis	5	2	2	2	11		
Scarlet Fever	297			5	305	Paralysis Agitans	4	1			7		
Scarlatina and Measles	15				15	Insanity		3	4		7		
Influenza	30				30	Chorea	2	2			5		
Whooping Cough	27			8	50	Epilepsy	1	2			4		
Convalescent Diphtheria	31				31	Convulsions	1				2		
Diphtheria	21			3	26	Neuralgia	2				2		
and Measles	1			1	2	Locomotor Ataxia	2	3		1	7		
and Scarlatina	39			2	41	Neuritis	3	5			8		
Typhoid, Enteric Fever	133			18	185	Meningitis				4	4		
Febricula	32				32	Hysteria	3	1			5		
Scarlatina and Erysipelas	1				1	Hyperchondriasis	1				1		
Enteric and Scarlatina	2				2								
Measles and Erysipelas	1				1								
<i>Order 2.—Diarrhoeal Diseases.</i>						<i>Order 2.—Diseases of the Organs of Special Sense.</i>							
Diarrhoea	9				9	Diseases of the Eye	2				2		
Dysentery	14			1	15	Conjunctivities	2	1			3		
<i>Order 3.—Malarial Diseases.</i>						<i>Order 3.—Diseases of the Circulatory System.</i>							
Intermittent Fever (Ague)	15	1			16	Hypertrophy of the Heart	2	22		12	39		
<i>Order 4.—Septic Diseases.</i>						<i>Order 4.—Diseases of the Respiratory System.</i>							
Erysipelas	69			2	73	Laryngitis	3	1		3	7		
Pyæmia, Septicæmia	4			2	6	Asthma, Emphysema	7	2	4	1	17		
Puerperal Fever	3			1	4	Bronchitis	65	12	1	3	87		
Leprosy				3	3	Pneumonia	17	3	1	4	29		
<i>Order 5.—Venereal Diseases.</i>						<i>Order 5.—Diseases of the Digestive System.</i>							
Syphilis	60	12	11		94	Abscess of Lungs			2	1	3		
Gonorrhœa	63	13			82	Pleurisy	14	8		1	24		
Stricture of Urethra	20	6			27	Phthisis Pulmonalis	1	25	11	6	46		
Bubo	37	13	2		55	Tonsillitis	17	1			19		
Orethritis	18	10			29								
Chancre	39	8	2		56	Stomatitis	1				1		
Total, Class 1	1279	70	19	58	1517	Sore Throat, Quinsy	3				3		
<b>CLASS 3.—DIETETIC DISEASES.</b>						<i>Order 7.—Diseases of Urinary System.</i>							
Intemperance—						Nephritis		7	1	3	13		
a. Chronic Alcoholism	31	4		2	43	Bright's Disease (Nephria)		10		4	16		
b. Delirium Tremens				1	1	Suppression of Urine		1	1		2		
Surfeit (over-eating)	1				1	Disease of Prostate		1	2	1	5		
Total, Class 3	32	4		3	45								
<b>CLASS 4.—CONSTITUTIONAL DISEASES.</b>						<i>Order 8.—Disease of the Organs of Generation.</i>							
Rheumatic Fever, Rheumatism of Heart.	2			1	4	Ovarian Disease		2			2		
Rheumatism, Chronic	3	14	1		26	Disease of Uterus and Vagina	6		1		7		
Rheumatism	48	42	12	2	117	Disorders of Menstruation	2	1			3		
Cancer, Malignant Disease	2	3	2	4	11	Pelvic Abscess		1			2		
Tubercular Meningitis (Acute Hydrocephalus).	1	1		5	8	Perineal Abscess	5				5		
Tuberculosis, Scrofula, &c.			1		1	Diseases of Testes, Penis, Scrotum, &c.	4				4		
Purpura, Hæmorrhagic Diathesis	1				1	Pyloic Abscess	3		1	1	5		
Anæmia Chlorosis, Leucocythæmia	8		2	1	11								
Diabetes Mellitus	1	4		3	8								
Gout	4	1	1		6								
Sciatica	12				12								
Marasmus				2	2								
Total, Class 4	82	65	19	18	207								

COAST HOSPITAL.	Discharged during the year.				Remaining on 31st December, 1898.	Total.	COAST HOSPITAL.	Discharged during the year.				Remaining on 31st December, 1898.	Total.
	Cured.	Relieved.	Unrelieved.	Died.				Cured.	Relieved.	Unrelieved.	Died.		
<i>CLASS 6.—LOCAL DISEASES—continued.</i>						<i>CLASS 7.—VIOLENCE.</i>							
<i>Order 9.—Diseases of Parturition.</i>													
Abortion, Miscarriage, Pregnancy ...	8	...	...	1	...	9	Fractures ...	5	...	...	...	3	8
Phlegmasia Dolens ...	2	...	...	...	...	2	Dislocations ...	35	4	...	...	3	42
Other Accidents of Childbirth ...	2	1	...	1	...	4	Cuts, &c. ...	12	2	...	...	...	14
<i>Order 10.—Diseases of the Organs of Locomotion.</i>													
Caries, Necrosis ...	6	3	1	...	1	11	Sunstroke ...	2	...	...	...	...	2
Arthritis, Ostitis, Periostitis ...	...	1	...	...	...	1	Poison ...	7	...	...	...	...	7
Morbus coxae ...	...	1	2	...	...	2	Bursitis ...	3	...	...	...	...	3
Synovitis ...	16	3	...	...	1	20	Total, Class 7 ...	64	6	...	...	6	76
<i>Order 11.—Diseases of the Integumentary System.</i>						<i>CLASS 8.—ILL-DEFINED AND NOT-SPECIFIED CAUSES.</i>							
Carbuncle ...	4	2	...	...	...	6	Dropsy ...	...	1	...	...	...	1
Phlegmon, Cellulitis ...	22	1	1	...	1	25	Debility, Atrophy, Inanition ...	14	6	...	...	4	24
Ulcer ...	39	7	...	...	4	50	Tumour ...	4	...	...	...	...	4
Eczema ...	30	1	...	...	3	34	Abscess ...	35	2	...	1	2	40
Peniphigus ...	14	1	...	...	4	19	Hæmorrhage ...	...	...	...	1	...	1
Scabies ...	2	...	...	...	...	2	Injury to Groin ...	1	...	...	...	...	1
Impetigo ...	3	...	...	...	...	3	Not specified ...	46	2	1	...	11	60
Herpes Zoster ...	3	1	...	...	...	4	Total, Class 8 ...	100	11	1	2	17	131
Total, Class 6 ...	392	161	36	64	65	718							

SUMMARY OF TABLE XI.

	Discharged during the year.				Remaining in on December 31, 1898.	Total.
	Cured.	Relieved.	Unrelieved.	Died.		
Total, Class 1.—Specific, Febrile, or Zymotic Diseases ...	1,279	70	19	58	91	1,517
„ 3.—Dietetic Diseases ...	32	4	...	3	6	45
„ 4.—Constitutional Diseases ...	82	65	19	18	23	207
„ 6.—Local Diseases ...	392	161	36	64	65	718
„ 7.—Violence ...	64	6	...	...	6	76
„ 8.—Ill-defined and not-specified causes ...	100	11	1	2	17	131
Grand Total ...	1,949	317	75	145	208	2,694

TABLE XII.—Operations performed under anæsthetics at the Coast Hospital during the year 1898.

Nature of Operation.	Male.	Female.	Cured.	Relieved.	Unrelieved.	Died.	Total.
<b>Gynæcological—</b>							
Curettage ...	...	5	3	...	...	2	5
Recto vaginal fistula ...	...	2	2	...	...	...	2
Unspecified ...	...	2	2	...	...	...	2
<b>Eye Operations—</b>							
Excision of eyeball ...	1	...	1	...	...	...	1
„ cyst of eyelid ...	1	...	1	...	...	...	1
<b>Amputations—</b>							
Toe ...	3	...	3	...	...	...	3
Finger ...	2	1	2	1	...	...	3
Leg ...	...	1	1	...	...	...	1
<b>Bone Operations—</b>							
Scraping necrosis ...	12	2	8	4	2	...	14
Trephining ...	2	...	2	...	...	...	2
Resetting malunited jaw ...	1	...	1	...	...	...	1
<b>Operations on New Growths—</b>							
Excision of epithelioma ...	3	...	3	...	...	...	3
„ fibroma ...	...	...	...	...	...	...	...
<b>Abscesses—</b>							
Ischio-rectal ...	7	...	7	...	...	...	7
Thigh ...	3	...	2	1	...	...	3
Whitlow ...	1	1	1	1	...	...	2
Arm ...	...	1	1	...	...	...	1
Unspecified ...	4	1	5	...	...	...	5
<b>Operation on genito-urinary organs—</b>							
Excision of penile fistula ...	1	...	1	...	...	...	1
Circumcision ...	26	...	23	3	...	...	26
Radical cure of hydrocele ...	7	...	2	4	1	...	7
Stricture ...	3	...	3	...	...	...	3
Suprapubic cystotomy ...	2	...	1	1	...	...	2

Nature of Operation.	Male.	Female.	Cured.	Relieved.	Unrelieved.	Died.	Total.
Miscellaneous—							
Extraction of teeth	3	2	5				5
Extraction of foreign body	1		1				1
Fistula in ano	5		5				5
Scraping bubo	7		7				7
"    sinus	5		4		1		5
Excision of hæmorrhoids	4		4				4
Removal of varicocele	2		2				2
Excision of tonsils	1		1				1
"    under anæsthetic	2		2				2
Draining empyæmia	3	1	3	1			4
Scraping carbuncle	2				1	1	2
Excision of varicose veins	3		3				3
Tracheotomy	5		3			2	5
Scraping ulcer	1	2	2		1		3
Breaking down adhesions	2	1	2		1		3
Excision of breast		1	1				1
"    cyst	4		4				4
Reduction of dislocations	2		1		1		2
Operations on ingrowing toenail	1		1				1
Radical cure of inguinal hernia	5		3	2			5
Unspecified	15	1	15	1			16
Grand total of Cases	152	24	144	19	8	5	176

Anæsthetics used—

Ether	139	} Total 176 cases.
Chloroform	34	
Chloroform and ether	3	
Without anæsthetics	1	

Total operations 176

TABLE XIII.—SHOWING the names, &c., of all Patients who died at the Coast Hospital during the year 1898.

No.	Name.	Date of Admission.	How admitted.	Age.	Disease.	Complications.	Date of Death.	No. of days in Hospital.	Cemetery No.
21	Margaret Sullivan	3 Jan., 1898	Med. Adv.	46 yrs.	Acute enteritis	Peritonitis	1898. 4 Jan.	1	Removed.
2095	Ernest Arthur	27 Nov., 1897	"	44	Membranous laryngitis	Asphyxia	7 "	41	"
1799	Elizabeth Franklin	16 Oct., "	"	15	Phthisis	Pneumothorax	11 "	87	"
2196	Sarah Amy Cox	15 Dec., "	H. A. Depôt	14	Cardiac disease	Cardiac failure	11 "	27	"
2157	William Harper	7 "	Med. Adv.	53	Malignant disease of stomach.		13 "	37	849
57	Annie Dent	7 Jan., 1898	"	48	Bright's disease	Uræmia	14 "	7	Removed.
2084	William Armer	26 Nov., 1897	H. A. Depôt	40	Traumatic myelitis	Exhaustion	17 "	52	"
49	Jane Ann Doreaux	6 Jan., "	Med. Adv.	26	Enteric fever		19 "	13	850
1770	John Webb, otherwise Pocock.	11 Oct., "	H. A. Depôt	36	Malignant disease of liver.		20 "	101	Removed.
104	Robert Collins	14 Jan., 1898	Med. Adv.	7	Scarlet fever		20 "	6	"
144	Walter Daniel William White.	10 "	"	35	Enteric fever		23 "	4	"
176	Elizabeth Moore	25 "	"	44	Gangrene of leg	Asthenia	26 "	17 hours	851
180	Ivy Irene Ferguson	26 "	H. A. Depôt	7 wks.	Marasmus		26 "	2 "	852
209	Bernard Lind	29 "	Med. Adv.	46 yrs.	Cerebro-spinal meningitis		3 Feb.	5	Removed
74	Walter Sinfeld	10 "	"	35	Enteric fever	Peritonitis	7 "	28	"
172	Albert Tuck	24 "	"	15	"	Hæmorrhage	8 "	15	"
277	Fop Yee	6 Feb., "	"	45	"	Exhaustion	8 "	2	"
261	Caroline Danby	4 "	"	34	Phthisis	Asphyxia	9 "	5	"
281	Urula Noud	7 "	"	32	Dysentery	Exhaustion	10 "	3	"
257	Joseph Banister	4 "	H. A. Depôt	29	Abscess of lung		11 "	7	853
1971	Rhiza Gibbons	11 Nov., 1897	Med. Adv.	18	Rheumatic fever	Septic endocarditis	15 "	96	Removed.
280	Annie Kay	7 Feb., 1898	"	27	Enteric fever	Exhaustion	16 "	9	"
189	George Ralph	2 "	Med. Supt.	9	"		22 "	20	"
312	Kate Reynolds	11 "	Med. Adv.	48	Cardiac disease	Erysipelas	22 "	11	"
321	Thomas Shiolds	12 "	"	13	Enteric fever	Hæmorrhage	24 "	12	854
395	Mary Ann Wilson	24 "	"	32	Septic-endometritis.	Septicæmia	28 "	4	Removed.
388	Rose Haydon	23 "	"	39	Enteric fever	Peritonitis	2 Mar.	7	"
1872	Rachel Allen	27 Oct., 1897	"	23	Hemiplegia	Exhaustion	2 "	127	"
325	George Reynolds	14 Feb., 1898	H. A. Depôt	70	Fracture, Senile decay.	Hæmoptysis	5 "	19	855
374	William G. Dorse	22 "	Med. Adv.	73	Enteric fever	Hæmorrhage	7 "	15	856
248	George Kennedy	3 "	H. A. Depôt	41	Epithelioma of lip.	Exhaustion	11 "	36	Removed.
401	William James	26 "	"	30	Acute myelitis	Cystitis	11 "	13	857
511	Michael Cunningham	12 "	"	27	Pneumonia	Cardiac failure	14 "	2	858
485	Norman Hawley	9 Mar., "	"	6 wks.	Marasmus	Diarrhœa	15 "	6	Removed.
529	John Platt	14 "	"	73 yrs.	Enteritis		16 "	2	859
497	William Norring	10 "	"	43	Phthisis	Exhaustion	17 "	7	Removed.
559	Carl Peterson	18 "	Med. Adv.	71	Bright's disease	Convulsions	20 "	2	"
565	John Prejor	19 "	"	66	Alcoholism	Cardiac failure	23 "	3	860
569	Roy Woodhill	20 "	Med. Supt.	4	Membranous laryngitis.	"	22 "	2	Removed.
532	Emily Robertson	22 "	Med. Adv.	44	Pleurisy pericarditis	Asthenia	23 "	1	861

No.	Name.	Date of Admission.	How admitted.	Age.	Disease.	Complications.	Date of Death.	No. of days in Hospital.	Cemetery No.
490	Thomas Tierney	9 Mar., 1898	H. A. Dépôt	43 yrs	Spinal disease	Asthenia	30 Mar.	21	Removed.
578	George Bugler	21 " "	Med. Adv.	75	Chronic Bright's disease.	Heart failure	31 " "	10	"
618	Mary Moon	26 " "	"	24	Enteritis	Heart failure	31 " "	5	"
669	Leslie Jennings	1 April, "	"	1	Diphtheria	Exhaustion	2 April,	1	"
317	Thomas Sayers	11 Feb., "	"	44	Collapse of lung	Heart failure	4 " "	52	"
539	Alfred Hayes	15 Mar., "	"	33	Pneumonia	Exhaustion	8 " "	24	862
527	Reseigh Martin	14 " "	"	33	Cardiac disease	Bronchitis	8 " "	25	863
671	Albert Dean	2 April, "	"	19	Enteric fever	"	10 " "	8	Removed.
629	Harold Halcomb	28 Mar., "	"	2	Cellulitis	Scarlatina	10 " "	13	864
474	Mary McClatchie	8 " "	H. A. Dépôt	37	Hæmorrhage into pons.	Exhaustion	18 " "	41	Removed.
750	Sarah Silva	13 April, "	Med. Adv.	60 mths.	Malignant disease of pelvis.	Exhaustion	19 " "	6	865
735	John Leaney	10 " "	H. A. Dépôt	13 yrs.	Measles	Bronchitis	19 " "	9	Removed.
689	Charlotte Amelia Skarratt	5 " "	Med. Adv.	30	Abortion	Septicæmia	20 " "	15	"
780	William Stauley	19 " "	H. A. Dépôt	50	Chronic nephritis	Uræmia	20 " "	1	866
99	John Paul Wilson	14 Jan. "	H. A. Dépôt	43	Stenosis and atrophy of large intestine.	"	25 " "	101	867
821	Norman Jones	26 April, "	Med. Adv.	2	Scarlatina	Exhaustion	26 " "	1/2 hour	868
833	Percy Mapstone	27 " "	"	4 mths.	Enteric fever	"	27 " "	12 hours	Removed.
773	Barbara S. de Gerlache.	18 " "	"	5 yrs.	Measles	Capillary bronchitis.	29 " "	11	"
1439	William Ryan	26 Aug., 1897	"	22 yrs.	Chronic Bright's Disease	"	29 " "	247	"
782	Mary Watts	19 April, 1898	"	22	Enteric fever	Exhaustion	29 " "	10	"
435	John Holt	2 Mar., "	"	42	Chronic enteritis	"	2 May,	61	"
863	Alice McKinnon	2 May, "	"	8	Scarlatina	Diphtheria, syncope	3 " "	1	"
606	John Murfin	25 Mar., "	"	34	Cerebral meningitis	"	3 " "	39	"
855	Ellen Fanny Baiston	30 April, "	"	27	Enteric fever	Exhaustion	12 " "	12	"
932	Elias Simon	11 May, "	"	56	Pleurisy	Heart failure	15 " "	4	870
927	Bridget Craig	10 " "	"	44	Chronic nephritis	Carbuncle	16 " "	6	871
837	Hugo Meyena	27 April, "	"	56	Heart disease	"	21 " "	24	Removed
448	Jas. Hill	4 Mar., "	"	40	Psoas abscess	Exhaustion	22 " "	79	"
983	Francis Stewart	21 May, "	"	39	Meningitis	"	7 June,	17	"
1053	Thomas Challoner	2 June, "	"	7	Measles	Broncho-pneumonia	8 " "	6	"
1054	Rosanna Smith	2 " "	"	35	Puerperal septicæmia	Exhaustion	8 " "	6	"
1015	Ellen Brown	27 May, "	"	40	Enteric fever	"	9 " "	13	"
1052	Stella Challoner	2 June, "	"	2	Measles	Broncho-pneumonia	10 " "	8	"
1117	James Fitzgerald	14 " "	H. A. Dépôt	54	Chronic nephritis	"	16 " "	2	873
1136	Louisa Overs	16 " "	Med. Adv.	56	Acute bronchitis	"	18 " "	2	Removed.
371	Alfred Gray	19 May, "	Med. Supt.	30	Enteritis	High temperature	19 " "	31	874
1057	Thomas Gallies	2 June, "	Med. Adv.	19	Erysipelas of face	Abscess of neck	23 " "	21	Removed.
1080	Raymond Morris	7 " "	"	4	Measles	Capillary bronchitis	25 " "	18	"
1062	Kate Murphy	3 " "	"	22	Enteric fever	"	27 " "	24	"
992	Florence Jenkins	24 May, "	"	13	"	Hæmorrhage	29 " "	36	875
1216	Wilhelmina Day	30 June, "	"	7	Scarlatina	Diphtheria	3 July,	3	876
1210	John Duncan	29 " "	H. A. Dépôt	52	Chronic Bright's disease.	Uræmia	5 " "	6	877
1181	Rachel Eliz Wright	23 " "	Med. Adv.	38	Septicæmia	"	5 " "	12	Removed.
1229	Theresa Mendies	2 " "	Med. Supt.	21	Diphtheria	Asthenia	11 " "	39	"
1259	Iva Harper	7 July, "	Med. Adv.	16	Measles	Bronchitis	14 " "	7	"
1270	John King	9 " "	H. A. Dépôt	47	Pneumonia	Cardiac failure	15 " "	6	879
1266	Robert Moore	8 " "	Med. Adv.	6	Tubercular meningitis	"	16 " "	8	Removed.
1320	Elizabeth McCall	17 " "	Med Supt.	21	Erysipelas of face	Septicæmia	18 " "	1	890
881	Saul Slater	4 May, "	H. A. Dépôt	41 mths.	Cerebral hæmorrhage	"	19 " "	77	881
1323	Clarence Moy	17 July, "	"	15 yrs.	Measles	Bronchitis	20 " "	3	Removed.
1344	Samuel Squire	20 " "	"	55	Chronic bronchitis	Exhaustion	24 " "	4	882
1227	Edward Mathieson	2 " "	"	2	Measles	Bronchitis	24 " "	26	883
1146	Jane C. Ager	18 June, "	Med. Adv.	19	Enteric fever	Meningitis	28 " "	40	884
1308	Carsten Haase	15 July, "	"	75 mths.	Gangrene of foot	Exhaustion	1 Aug.,	17	Removed.
1430	Margaret Barnett.	2 Aug, "	"	15 yrs.	Measles	"	4 " "	2	"
1260	Catherine Davies	7 July, "	"	1 1/2 yrs.	Scarlatina	"	4 " "	28	"
1408	Roy Bird	29 " "	"	1 1/2 yrs.	Measles	Bronchitis	4 " "	6	885
1289	Jacob Marks	12 " "	"	65	Asthma	Heart failure	4 " "	23	886
1474	Rose Cooper	7 Aug., "	"	22	Septicæmia	Scarlatina	10 " "	3	Removed.
1439	Henry Wagstaff	4 " "	H. A. Dépôt	58	Pneumonia	"	11 " "	7	887
1480	Norman Tugay	8 " "	Med. Adv.	2	Measles	Bronchitis	12 " "	4	888
1570	Ida Gilchrist	19 " "	"	9	Diphtheria	Heart failure	24 " "	5	Removed.
665	Lawrence Hoff	1 April, "	H. A. Dépôt	49	Cirrhosis of liver	"	28 " "	150	889
306	James Brior or Madison	11 Feb., "	"	31	Cardiac disease	"	29 " "	200	890
1646	Joseph Hogan	28 Aug "	"	44	Measles	Acute periostitis	31 " "	3	891
1695	Peter Carroll	2 Sept., "	Med. Adv.	23	Acute bronchitis	Heart failure	2 Sept.,	1	Removed.
1464	Thomas Slaman	6 Aug. "	"	71	Cystitis	Exhaustion	3 " "	28	"
1513	Mary A. Davis	11 " "	"	61	Consumption of lungs	"	4 " "	23	892
1703	Robert Lunny	5 Sept., "	H. A. Dépôt	40	Cardiac disease	"	9 " "	4	893
1419	Arthur Crowe	5 Aug., "	"	45 mths.	Cerebral hæmorrhage	Heart failure	12 " "	38	894
1758	Nellie Waitara	12 Sept., "	Med. Sup.	15 yrs.	Measles	Broncho-pneumonia.	16 " "	4	895
1470	Ann Burslem	6 Aug, "	Med. Adv.	65	Myelitis	Bedsore, exhaustion.	17 " "	42	896
1836	Maurice O'Neill	22 Sept, "	H. A. Dépôt	66	Cardiac disease	Exhaustion	30 " "	8	Removed.
1757	Agnes Wilson	12 " "	Med. Sup.	2	Measles	Pneumonia	1 Oct.,	19	898
1797	Edward Chas. H. Blake	17 " "	H. A. Dépôt	47	Chronic alcoholism	Acute nephritis	4 " "	17	Removed.

No.	Name.	Date of Admission.	How admitted.	Age	Disease.	Complications.	Date of Death.	No. of days in Hospital.	Cemetery No.
1901	Leopold Pepine .....	30 Sept., 1898	Med. Sup.....	54 yrs.	Renal disease .....	Cerebral hæmorrhage.	7 Oct...	7	899
1929	Emma M. Tait.....	4 Oct., "	Med. Adv.....	2	Whooping cough ...	Broncho-pneumonia.	10 " ...	6	900
1882	Ah Hong .....	27 Sept., "	" .....	30	Beri-Beri .....	Heart failure ...	11 " ...	14	Removed.
1886	George Clark .....	26 July, "	H. A. Dépôt ...	45	Aortic aneurism and	Aortic valvular disease.	11 " ...	77	"
1936	Edward Esam .....	5 Oct., "	Med. Adv.....	53	Acute tuberculosis...	Exhaustion .....	12 " ...	7	"
1444	Herman Newman .....	4 Aug. "	" .....	75	Hemiplegia .....	Diarrhœa ...	12 " ...	69	"
1844	Mortimer Godfrey .....	23 Sept., "	H. A. Dépôt ...	42	Tropical dysentery...	Exhaustion .....	16 " ...	23	901
1964	William Coster .....	10 Oct., "	" .....	52	Heart disease .....	Syncope .....	16 " ...	6	Removed.
1997	William Naylor .....	15 " "	" .....	60	Gastro-enteritis ...	Exhaustion .....	28 " ...	13	903
2019	Roy Gray .....	18 " "	Med. Adv.....	6	Intestinal tuberculosis.	Meningitis .....	30 " ...	12	Removed.
1976	Ethel Ivey .....	11 " "	" .....	21	Chronic anæmia ...	Exhaustion .....	4 Nov. ...	24	904
2137	Augusta Mortimer .....	3 Nov., "	H. A. Dépôt... 7	7	Measles .....	Pneumonia .....	4 " ...	1	905
2060	Frances Thompson .....	24 Oct., "	Med. Adv.....	38	" .....	" .....	8 " ...	15	Removed.
2159	Alice Kenny .....	7 Nov., "	" .....	14	Broncho-pneumonia.	Convulsions ...	9 " ...	2	"
2160	Sarah Hooper .....	8 " "	" .....	35	Pneumonia .....	Embolism of brain.	12 " ...	4	"
1953	Alexander Forbes .....	8 " "	H. A. Dépôt ...	54	Aneurism .....	Heart failure ...	14 " ...	6	906
807	Ernest Franz .....	23 April, "	Med. Supt. ...	17	Cirrhosis of liver ...	Hæmorrhage, exhaustion.	17 " ...	207	907
2102	Frank Francis .....	30 Oct., "	Med. Adv.....	41	Gastro-enteritis ...	Exhaustion ...	18 " ...	19	908
2302	Maud Lovell .....	1 Dec., "	Med. Sup.....	24	" .....	" .....	3 Dec. ...	2	Removed.
2206	Thomas Johnson .....	26 Nov., "	H. A. Dépôt... 2	2	Whooping cough ...	Pneumonia .....	5 " ...	9	909
2349	Robert Jarvis .....	7 Dec., "	Med. Supt. ...	3 1/2 wks.	" .....	" .....	7 " ...	2 hours.	Removed.
2338	Michael Harper .....	6 " "	" .....	11 yrs.	" .....	" .....	9 " ...	3	910
2350	Dollina Jarvis .....	7 " "	" .....	1 1/2 yrs.	" .....	Broncho-pneumonia.	12 " ...	5	Removed.
2317	Edward Trood.....	3 " "	H. A. Dépôt... 50	50	Heart disease .....	Exhaustion ..	14 " ...	11	911
2387	Arthur R Barnes .....	13 " "	Med. Adv .....	10 mths.	Whooping cough ...	Convulsions ...	15 " ...	2	Removed.
1619	John Skinner .....	25 Aug., "	H. A. Dépôt... 47	47	Consumption .....	.....	17 " ...	114	912
2379	Annie Gammel .....	12 Dec., "	Med. Adv.....	1 1/2 yrs.	Whooping cough ...	Broncho-pneumonia.	21 " ...	9	913
2167	William Hutchison.....	8 Nov., "	H. A. Dépôt... 26	26	Heart disease .....	.....	26 " ...	48	914
2399	William Johnson .....	15 Dec., "	" .....	39	Abscess of lungs ...	Exhaustion ...	28 " ...	13	915
2474	Andrew Olsen .....	29 " "	Med. Adv.....	41	Chronic nephritis ...	.....	31 " ...	2	Removed.

Leper patient, E. W., buried in grave No. 869.  
 Leper patient, S. P., buried in grave No. 872.  
 Leper patient, T. W., buried in grave No. 878.  
 Aboriginal, Susan Wentworth, buried in grave No. 897.  
 Leper patient's child, Florence L., buried in grave No. 902.

APPENDIX B.

SUMMARY TABLE, showing the work of the Coast Hospital and its cost in each year, from 1884 to 1898.

Year.	Total cases admitted.			No. and kinds of communicable diseases included in foregoing columns.					Total cases admitted.				
	No. of patients.	Average stay of each patient in days.	Mortality.	Typhoid fever.	Mortality per cent.	Erysipelas.	Diseases requiring strict isolation.	No of kinds of such diseases dealt with.	Average daily number.	Cost per occupied bed, not including ambulance.	Ambulance service, cost per occupied bed.	Total cost per occupied bed, including ambulance.	Wines, spirits, &c. cost per head (included in foregoing columns).
1884	1,132	29'33	4'04	235	10'63	..	12	2	104'33	£ 53 1 1 1/2	£ 6 0 3 1/2	£ 64 1 4 1/2	£ 2 3 2 1/2
1885	1,204	37'06	7'05	285	17'54	...	17	4	150'05	£ 51 16 8	£ 3 18 10 1/2	£ 55 15 6 1/2	£ 1 11 2 1/2
1886	1,278	41'04	9'38	302	13'52	...	48	4	146'33	£ 52 0 8	£ 6 12 10	£ 58 13 6	£ 1 10 0 1/2
1887	1,726	42'05	9'21	286	11'08	...	63	3	198'56	£ 42 14 1 1/2	£ 5 4 3 1/2	£ 47 18 5	£ 0 10 3 1/2
1888	1,694	42'23	5'55	241	5'81	45	89	4	197'12	£ 41 13 2	£ 5 17 0	£ 47 10 2	£ 0 8 8
1889	1,813	39'09	5'44	342	7'01	62	76	5	198'09	£ 44 17 4 1/2	£ 7 2 1 1/2	£ 51 19 6 1/2	£ 0 6 4 1/2
1890	1,529	42'00	7'03	140	15'00	19	46	5	179'00	£ 55 7 5	£ 7 4 5	£ 62 11 10	£ 0 5 11
1891	1,748	40'00	3'23	88	9'00	31	59	5	193'00	£ 50 2 6	£ 6 0 6	£ 56 3 0	£ 0 5 2 1/2
1892	1,644	44'08	4'04	61	16'39	24	92	5	200'03	£ 44 17 11 1/2	£ 5 13 7 1/2	£ 50 11 6 1/2	£ 0 7 6 1/2
1893	2,274	32'08	4'05	83	12'00	36	499	5	193'05	£ 47 8 0	£ 6 15 10	£ 4 3 10	£ 0 10 1
1894	2,158	27'06	4'03	143	8'03	36	188	5	176'04	£ 55 7 4 1/2	£ 6 16 1 1/2	£ 62 3 6	£ 1 3 6 1/2
1895	2,451	24'06	3'07	96	6'02	51	141	5	176'03	£ 59 1 11	£ 5 11 0	£ 64 12 11	£ 1 1 6 1/2
1896	2,213	31'03	5'04	236	8'05	63	78	5	204'06	£ 51 6 1 1/2	£ 5 15 9 1/2	£ 57 1 11	£ 1 4 4
1897	2,307	32'06	5'05	128	8'05	100	266	3	224'04	£ 50 19 2 1/2	£ 6 3 1	£ 57 2 3 1/2	£ 1 9 10
1898	2,694	31'04	5'38	163	11'04	70	696	9	231'60	£ 64 14 10 1/2	£ 6 2 5 1/2	£ 70 17 4 1/2	£ 1 14 3 1/2

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1899.  
(THIRD SESSION.)

—  
LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

—  
GENERAL FEVER HOSPITAL FOR THE METROPOLITAN  
DISTRICTS.

(CORRESPONDENCE RESPECTING ESTABLISHMENT OF.)

—  
*Printed under No. 13 Report from Printing Committee, 12 December, 1899.*  
—

No. 1.

The Honorable J. A. Hogue, M.P., to The Chief Secretary.

Dear Sir,

7 March, 1899.

I desire, as Parliamentary representative of the district of the Glebe, to invite your attention to the question of the diphtheria branch of the Hospital for Sick Children, Glebe. The existence of that branch of the hospital has done great injury to property-owners in the immediate neighbourhood, and, indeed, to those in the borough generally.

Property has notoriously been depreciated in value by the knowledge that the Glebe is the receptacle for diphtheria patients from outside.

As it would not do to discontinue this branch of the hospital until some substitute for it were found in another locality, I venture to strongly impress upon you the desirability of establishing, in a position to be hereafter chosen, a general fever hospital for the metropolitan district. Should such hospital be erected, all diphtheria patients could be treated therein. I am given to understand that such a course would be in harmony with the wishes of the authorities of the Children's Hospital, who would gladly remove their diphtheria branch if a suitable site were found for it elsewhere.

Trusting that this matter will receive immediate attention.

I am, &c.,  
J. A. HOGUE.

—  
The Chief Medical Officer may perhaps advise if it is possible to erect a building adjacent to the Coast Hospital that will meet the requirements of this case.—J.N.B., 9/3/99. The Chief Medical Officer of the Government.—C.W., P.U.S., B.C., 13/3/99. Acknowledge.—13/3/99.

No. 2.

The Chief Medical Officer of the Government to The Principal Under Secretary.

Sir,

Office of the Chief Medical Officer, Sydney, 22 March, 1899.

I have the honor to acknowledge receipt of the Minister's minute dated March 9th, in which he requests me to advise whether it is possible to erect a building adjacent to the Coast Hospital, which will meet requirements contemplated by the Honorable the Minister for Public Instruction in his letter (returned herewith) dated March 7th.

2. Mr. Hogue, in the letter mentioned, advocates establishment of a general fever hospital for the Metropolitan district, at which all diphtheria patients could be treated. It is the case, in my opinion, that a general fever hospital is much required; that it should be the kind of institution commonly referred to as an isolation hospital (or, perhaps more judiciously, as a sanatorium); and that such an establishment is the necessary complement of, or the corollary to, the notification part of the Public Health Act.

3. The objects of an isolation hospital or sanatorium are two: prevention of epidemics, and the treatment of infectious disease. They help in prevention of epidemics by furnishing means of promptly and effectually isolating the earliest cases of infectious diseases which occur in any district, further spread from such cases being thereby avoided. Success depends, however, on such promptness and such thoroughness being invariably exercised; and a central position is, therefore, evidently important. As regards the treatment of disease, the distance at which a sanatorium may be placed from the centre of the inhabited area to be served depends on the kinds of disease to be treated and the requirements of persons suffering from them. In the case of some diseases the distance to which a patient is transported is of comparatively small importance when suitable means of conveyance are provided; in others the delay and fatigue of a long journey would often be fatal. Now, as any such hospital is, for reasons of economy, and for others unnecessary to be mentioned just now, designed to treat all kinds of such diseases, the distance at which it may be placed from the centre is governed by the requirements of that disease in which transport is of most importance.

4. Diphtheria (and diphtheritic croup) is the malady to the successful treatment of which a centrally placed hospital is absolutely essential. This is well known, of course, to the medical profession, as well as to many parents who have had practical experience with this disease; but I have thought it well to invite Mr. C. P. B. Clubbe to speak on this point, since his experience of the hospital treatment of diphtheria in Sydney is most lengthy and most extensive. He has been good enough to respond as follows:—

“The reasons against placing a hospital for the treatment of diphtheria in the neighbourhood of Little Bay, to the exclusion of one in or near the city, are many and weighty. Diphtheria occurs chiefly amongst children. Many of the cases are only brought to the hospital when acutely ill and often needing immediate surgical treatment—in some instances because it is only then that the disease is recognised; in others, because it is only then that the parents will consent to their removal. Such cases (*i.e.*, children choking from diphtheria) could not possibly bear the long journey; and if they were sent, a large proportion would be dead on their arrival. In the milder, but not less infectious cases, the parents would often refuse to sanction their removal to a hospital situated at such a distance.”

With these opinions I entirely concur. Mr. Clubbe goes on to point out that establishment of a sanatorium at Little Bay, with a view to its being the hospital at which all cases of diphtheria should be treated, would very soon have an effect precisely contrary to that desired, namely—(*a*) the proportion of deaths would inevitably be increased by the mere length of the journey; and (*b*) the disease would be spread, and the mortality from it would consequently be increased from the same cause operating in another way—that is, the known unwillingness of parents to send their children to a distant and hardly accessible institution would lead them to retain the patients at home where they could not be isolated, and where their disease would spread by contagion.

5. As regards the treatment of other infectious diseases, distance has great importance in some kinds, though it is not possible to show this quite so clearly and forcibly as in the case of diphtheria; but, as regards prevention, all such diseases stand on the same footing. If a sanatorium is to answer its most important purpose of preventing the spread of infectious disease it must be so placed that people will not be for any reason unwilling to send their children there, and so that when removal of patients is required it may be effected in three or four hours at most. These considerations show that the neighbourhood of the Coast hospital—that is, 3 miles from the nearest village and 6 miles distant from even the fringe of the more thickly inhabited portions of Sydney—is altogether unsuitable.

6. Whether it is necessary to further emphasise the unsuitability of the Coast Hospital site for erection of a sanatorium, I do not know; but it seems worth while to point out that the usefulness of the Coast merely as a general hospital, actually is impeded and discounted by its situation. Objections to going there are frequently and strongly urged by the poor; they are—(*a*) impossibility of reaching it except on foot during many night hours; (*b*) impossibility of reaching it during the day except at an appreciable money cost, and at the loss of three-quarters of a day's work; (*c*) the separation between relatives and friends thus entailed at a time when the need of active sympathy is most felt; (*d*) the difficulty of summoning a minister of religion when death unexpectedly threatens. It is true that this institution is always full, notwithstanding; but it is filled by the poor who have no choice but to go there where a bed is offered them; and therefore it appears to me wrong and unjust to place a general hospital at so distant a spot. To erect a sanatorium there would be, in addition a tactical blunder, fatal to its main object.

7. It may perhaps be supposed that a remote position is necessary in order to prevent the spread of infection from a sanatorium. But this is not the case. The Coast Hospital was designed as a small-pox hospital. It happens never to have been used for that purpose; but to place it far away was not unreasonable (though the distance is much greater than necessary), because the infection of smallpox can spread to a considerable distance beyond the walls of the hospital in which the disease is being treated. But it is the only disease of which this can be said. In every other the infection can spread directly from the patient only for extremely short distances and, for practical purposes, only to points within the room in which he lies. There is thus no reason for fixing upon a remote site for a sanatorium, while every reason points to choice of as central a site as can be found.

8. There are other grounds of objection to the site mentioned, which I just note below:—

1. Extra expense of building where all material has to be carried far by road.
2. Excessive cost of transport of patients, and difficulty of maintaining an ambulance service not merely efficient, but invariably and promptly available on demand.
3. The sanatorium would require a disinfecting apparatus and staff; a similar apparatus and staff are required for the metropolitan district. The latter must be central, and might be attached to the sanatorium if that were central too; otherwise two disinfecting stations will have to be provided—one central, one distant for use of the distant hospital.
4. The sanatorium must, in any case, have a separate staff. Even the Medical Superintendent of the hospital, which often has 250 occupied beds, could not manage, in addition, so different an institution as the sanatorium.



## 3.

5. Were the sanatorium placed so far away, the medical students at the University would be deprived of a most valuable opportunity for becoming acquainted with the various forms of infectious disease which are not admitted to the general hospitals where they are now educated. Such attendance at an easily-reached sanatorium could be permitted under suitable regulations for avoiding risk of carrying infection.

6. A sanatorium, placed within view of the public, and known to have been instituted for prevention of epidemics, as well as for treatment of infectious disease, could not fail to exert some educational effect, which would be lost were such cases relegated to the Coast, already known, as it is, to be a general hospital like any other.

9. I do not expect the considerations noted above to carry much weight at first sight. Reflection, and a good deal of experience are necessary to due appreciation of them; but, if requisite, I could say a good deal under several of the heads mentioned. In the meantime, I have the honor to advise that any proposal which may be made to erect a sanatorium at Little Bay, or at any but a comparatively central spot, is unpractical, and should not for a moment be entertained; and I am further of opinion that, if Little Bay were to be brought into closer tram communication with Sydney, this would not be nearly as great an improvement as it sounds, and in all practical details would leave the objections raised above very much as they stand.

I have, &c.,

J. ASHBURTON THOMPSON,  
Chief Medical Officer of the Government.

Submitted.—C.W., 5/4/99. A copy of this report may be forwarded to the Hon. J. A. Hogue, M.P. The Chief Medical Officer may also be asked if he can suggest a site adapted for a fever hospital at which diphtheria patients could be treated.—J.N.B., 5/4/99.

## No. 3.

The Principal Under Secretary to The Honorable J. A. Hogue, M.P.

Sir,

Chief Secretary's Office, Sydney, 13 April, 1899.

Adverting to my letter of the 13th ultimo, formally acknowledging the receipt of yours of the 7th idem, advocating the establishment of a general fever hospital for the metropolitan district, at which all diphtheria patients could be treated, and notifying you that the Chief Medical Officer of the Government had been instructed to advise as to the possibility of erecting a building adjacent to the Coast Hospital, which would meet the requirements contemplated by you, I am now directed by the Chief Secretary to append, for your perusal, copy of a report which has been furnished to this Department by the Chief Medical Officer on the subject.

2. I am to add that the papers in the matter have been returned to Dr. Ashburton Thompson, who has been requested to say whether he can suggest a site adapted for a fever hospital at which diphtheria patients can be treated.

I have, &c.,

CRITCHETT WALKER,  
Principal Under Secretary.

## No. 4.

The Honorable J. A. Hogue, M.P., to The Principal Under Secretary.

Sir,

Department of Public Instruction, New South Wales, 14 April, 1899.

I have the honor to acknowledge receipt of yours of 13th instant, respecting the question of establishing a general fever hospital for the metropolitan district, and beg to say that I am gratified at the attention which this important subject is receiving at the hands of the Chief Secretary.

I have read with interest the report (copy of which you have been good enough to forward me) of the Chief Medical Officer, together with the opinions quoted by that gentleman of Dr. Clubbe; and I would like to observe that with the opinions expressed by both Dr. Ashburton Thompson and Dr. Clubbe I entirely concur. The necessity for a general fever hospital, or sanatorium, for the metropolitan district is so apparent that I need add nothing to what has been urged by the Chief Medical Officer. The only question to be determined is that of site. Little Bay seems to me to be too distant from the centre of population to meet requirements. As far as I can see, there are two sites worth considering—that at Kensington, where some 40 acres of Crown land are available, and that in the University Park, near the termination of Ross-street, Forest Lodge. Of the two, the Kensington site appears the more eligible one in every way, and I would like to suggest that that site be adopted. A general fever hospital and sanatorium erected there would be easily accessible from all parts of the metropolitan area, and, as far as I can see, is open to none of the objections to other sites.

I beg to express the hope that my esteemed colleague, the Chief Secretary, will favourably consider the suggestion herein made.

I have, &c.,

J. A. HOGUE.

Submitted

Submitted.—C.W., 19/4/99.

I fail to recognise the advantage to be gained by selecting a site for the proposed institution in a locality promising at no distant date to be as densely populated as that of the present hospital. The Chief Medical Adviser may be asked if, in addition to the valuable suggestions already submitted, he can recommend a more suitable site, and one free from the prejudices that have induced the request now made for a change.—J.N.B., 22/4/99.

The Chief Medical Officer of the Government.—C.W., P.U.S., B.C., 24/4/99.

### No. 5.

#### The Chief Medical Officer of the Government to The Principal Under Secretary.

Sir,

Department of Public Health, New South Wales, Sydney, 5 June, 1899.

I have the honor to acknowledge receipt of a letter addressed to the Honorable the Chief Secretary by the Honorable the Minister for Public Instruction on appointment of a site on which a sanatorium to serve Sydney might be erected, together with a minute by the Honorable the Chief Secretary, in which I am requested to recommend a more suitable site than one lately mentioned for the purpose on the Bunnerong-road, which is referred to in Mr. Hogue's letter as being at Kensington.

2. I have already had the honor to point out that such an institution must be within easy reach of the people to be served if it is to answer fully its main purpose—that, namely, of preventing the spread of epidemic diseases. Either it must be placed, therefore, in a position where it will necessarily be in nearer or further proximity to inhabited houses; or else—the only alternative I see—several such institutions (or, in the case of Sydney, say three) must be placed at points on the circumference of the area to be served, so situated that the various parts of the area can be reached from one or other of them with sufficient facility. Three such points in situations sufficiently remote from houses at the date of selection could doubtless be found. But the expense of this plan would evidently be great.

3. The site on the Bunnerong-road is, I now believe, the only one which, being Crown land, can be said to be available at this date. It should not be referred to as at Kensington, being, in fact, about a mile beyond the nearest houses on that estate, and next to, but considerably beyond, Kensington race-course. Its nearest neighbour would be a new penitentiary (should construction of the latter be authorised). The available area being 40 acres, it would be possible to place the buildings within an unoccupied (plantation) zone of considerable breadth, which would sufficiently isolate it from boundary roads and adjacent dwellings; for, though at present sufficiently remote from any inhabited neighbourhood, the adjoining land is open to occupation, and, in course of years, is likely to become populous. I have mentioned this possible site, not because it is in the best situation, but for the reason mentioned above. If a few acres of Sydney Common could be resumed on Dowling-street, and adjoining that portion which is now withdrawn from the uses contemplated in the Act by which the City Corporation are made trustees for it, by their having devoted it to the burial and destruction of garbage, that position would be much more central, and consequently much more economical in connection with the transfer of patients from their homes to it.

4. It is admitted, I believe, by the party which desire to see the diphtheria branch of the Glebe Hospital removed, that the objection to its presence is not practical as regards actual or probable dissemination of disease from it, but at bottom sentimental, although of indirect practical importance as being said to reduce the value of house property in the neighbourhood. I would here point out that the objections which can be legitimately raised to neighbourhood of a sanatorium are always of that kind, and, consequently, most difficult to meet. There is beyond doubt no fear of the spread of infectious disease from such an institution when properly arranged and conducted (and, in the case of the Glebe, actual figures show that no such spread has occurred); and it is evident that if there were, the hospital would fail of that use, namely, the prevention of disease, which has caused every important municipality in the Old Country to erect one. In view of these considerations I would suggest that erection of a sanatorium in a neighbourhood where at the time of erection it is not, but after the lapse of years may be expected to become, surrounded by houses, has advantages over erection of one near some old-established centre of habitations; for, clearly, a sentimental objection can be got rid of only by experience of the reality and observing it to be different from what was imagined; and this, I believe, would result from contemplation of a sanatorium at a distance, and consequently the gradual occupation of neighbouring land at average values would follow. But the prejudice referred to will, it may be expected, also be overcome in part by education in the uses of such an establishment. When the intention of preventing infection is grasped, and the fact that it may be realised here as it already has been realised elsewhere, then, I believe, objections to the neighbourhood of a picturesque collection of buildings, erected within a well-planted neutral zone, and surrounded with its own wall, will be diminished. With these views in mind, the desirability and usefulness of sanatoria has been mentioned in pamphlets on the infectious diseases, isolation, disinfection, &c., &c., which have lately been published for this Department, and which, in the course of a year or two, will have become very widely distributed by local authorities under the Public Health Act throughout the country.

5. The impossibility of removing the diphtheria branch of the Glebe Hospital until some other place for the treatment of diphtheria is established in Sydney at a point within easy reach of the population, and (as regards diphtheria) within reach of practitioners specially skilled in the operative treatment of that disease is, I believe, recognised. It is also admitted, I believe, that if a new institution for that purpose is to be erected, it should also provide for isolation and treatment of cases of all other kinds of infectious disease. There is, in my opinion, as chief of the Public Health Service, no doubt at all that an institution for the latter purpose which would also accommodate the whole of the cases of diphtheria which need isolation and treatment—a number much larger than that which can be dealt with at present at the small hospital at the Glebe—is required, and is the complement to recent legislation for restraint of infectious diseases. It is also certain that wherever and whenever a site for this purpose is selected the same fear of depreciation of land values in the neighbourhood will make itself felt as an obstacle. Under these circumstances it appears to me that the Government will at some time or other see occasion for some exercise of authority—that is, as soon as erection of a sanatorium has been decided upon, however great the care may be which is taken to avoid unnecessary intrusion on already inhabited areas.

areas. Such unnecessary intrusion would, in my humble opinion, be avoided by selection of the Bunnerong site; but it could be as well avoided by choosing a site on Sydney Common in the situation indicated above, while several advantages not afforded by the Bunnerong site would in that case accrue. In both cases need for exercise of authority in the way alluded to would be least likely to arise, since less objection could be raised in respect of them than of any other sites which I have been able to think of. I trust that the possibility of acquiring a site on Sydney Common at the remote part of it mentioned may be favourably considered for inquiry and report in the first place.

I have, &c.,

J. ASHBURTON THOMPSON,  
Chief Medical Officer of the Government.

Submitted.—C.W., 8/6/99. A copy of this report to be sent to the Hon. J. A. Hogue, M.P., then to be referred to Cabinet.—J.N.B., 10/6/99.

#### No. 6.

The Principal Under Secretary to The Honorable J. A. Hogue, M.P.

Sir,

Chief Secretary's Office, Sydney, 15 June, 1899.

With reference to your letter of the 14th April last, in continuation of previous correspondence respecting the question of the establishment of a sanatorium for the metropolitan district and the selection of a suitable site for the purpose, I am now directed by the Chief Secretary to enclose, for your perusal, copy of a further report which has been furnished to this Department by the Chief Medical Officer of the Government on the subject.

I have, &c.,

CRITCHETT WALKER,  
Principal Under Secretary.

#### No. 7.

The Honorable J. A. Hogue, M.P., to The Principal Under Secretary.

Sir,

27 June, 1899.

I have the honor to acknowledge your communication of 15th June, 99/10,330, respecting the question of removing the diphtheria branch of the Sick Children's Hospital from the Glebe and establishing a sanatorium for the metropolitan district.

I desire to thank my honorable colleague, the Chief Secretary, for his action in the matter, and to express, generally, my concurrence in the views of Dr. Ashburton Thompson, as expressed in the accompanying copy of his letter.

I am, &c.,

J. A. HOGUE.

Submitted.—C.W., 3/7/99. Seen.—J.N.B., 4/7/99.

#### No. 8.

The Council Clerk, Glebe, to The Principal Under Secretary.

Dear Sir,

Town Hall, Glebe, 19 October, 1899.

I am directed by the Glebe Council to acknowledge the receipt of your letter of 15th June, No. 99-10,330, addressed to the Honorable J. A. Hogue, M.P.

The Council are pleased to learn that the Chief Medical Officer of the Government has suggested the erection of a sanatorium within easy reach of Sydney, and beg to urge that you should use your influence with the proper authorities to have such suggestion carried into effect at an early date. The Council are of opinion that if this were done Sydney and the suburbs would derive inestimable benefit by the erection of the sanatorium.

With regard to the removal of the diphtheria branch of the Glebe Hospital, the Council feel that this should be specially urged for the following reasons:—

1st. When the hospital was first started it was distinctly agreed that no case of infectious disease should be brought into the hospital, and for many years this fact was specially noted on all printed reports and on the rules, but such notification was discontinued after the Committee had determined to open a diphtheria branch of the hospital. It will thus be seen that the opening of such branch was a breach of faith.

2nd. That a diphtheria hospital should be in an isolated position, and not placed in the centre of a large population.

3rd. That the value of property in the Glebe has depreciated in consequence of the diphtheria branch being opened.

4th. That there is grave danger to the inhabitants of the Glebe by having the diphtheria branch in its present position, and especially if there be any carelessness in conducting the institution.

The Council desire to acknowledge that up to the present, so far as it comes under their notice, the Children's Hospital has been conducted in a most excellent manner, and that every credit is due to the medical, nursing, and general staff for all they have done.

The Council asks that no stone be left unturned to carry into effect the proposal contained in the Chief Medical Officer's report.

I have, &c.,

T. D. GLASSCOCK,  
Council Clerk.

Submitted.—C.W., 25/10/99. Seen.—J.S., 25/10/99.

## No. 9.

J. A. Hogue, Esq., M.P., to The Chief Secretary.

Sir,

25 October, 1899.

I desire to bring under your notice the subject of the diphtheria branch of the Children's Hospital, Glebe, and to point out that a favourable opportunity now presents itself for doing what has long been agitated for by the people of the Glebe, namely, declaring the branch closed.

The existence of this branch has long been felt to be a serious injustice by the residents of the Glebe. Its very establishment in the borough was a breach of faith; its continuance has been a matter of necessity; but at the present moment that necessity does not exist. There are now no patients in the branch. The time is therefore opportune for the closing of it. No injustice would be done thereby, but an act of simple justice would be done to the people I have the honor to represent in the Legislative Assembly.

I respectfully and earnestly press this matter upon your serious attention as one of urgency.

Awaiting your favourable decision,

I have, &c.,

J. A. HOGUE.

Refer to the Chief Medical Officer.—C.W., B.C., 30/10/99.

## No. 10.

The Chief Medical Officer of the Government to The Principal Under Secretary.

Sir,

Department of Public Health, New South Wales, Sydney, 6 November, 1899.

I have been officially informed by a member of the House Committee of the Children's Hospital that the diphtheria branch has been so long practically empty, that the general committee propose to close it. The wish expressed by Mr. Hogue, M.L.A., in his letter of 5th October, will therefore be met without need for the Minister's intervention.

2. I understand the reason for closing the branch which the Committee entertains is their hope that the late diminution in the amount of diphtheria will continue and prove permanent. I do not think there is any good ground to expect this. The facts are:—That before and during 1898 there was an epidemic of this disease which reached its acme in May, 1898, when 102 cases were notified to me as having occurred in the metropolitan district during the fortnight ending 20th May, 1898; that from that date the fortnightly number of notifications steadily fell; and that since August, 1899, not more than six cases have been notified to me in any fortnight since that which ended 12th August. This is an example of the fluctuations in the prevalence of this disease which are usual, and I have no doubt that in due season there will be an increase in the number of cases, and that need for a diphtheria hospital will again become urgently felt.

3. In this connection, I would refer you to my letters on the same subject written on a similar occasion, and addressed to the Chief Secretary under dates 22nd March and 8th June, in which the need for a sanatorium for reception of cases of infectious diseases occurring in the metropolitan area was pointed out, and in which it was shown that the Coast Hospital (where alone diphtheria cases can be sent in absence of the Children's Hospital Branch) is from its distance quite unavailable for reception of cases of diphtheria. If the branch referred to be abolished, and no central hospital where diphtheria can be promptly received and suitably treated be substituted for it, much avoidable loss of infant life will occur, and very great embarrassment will be caused to the Government when, in the ordinary course of events, diphtheria once again becomes epidemic. In the second of the abovementioned letters a definite suggestion as to site for a sanatorium was made, and I further suggested that certain preliminary steps should be taken. I now once more beg to repeat those recommendations, and to point out that for want of selection of a suitable site, Sydney is still not merely unprovided with means of isolating the earliest cases of infectious disease which occur, and so preventing epidemics of them, but also remains unprovided with a suitable disinfecting-station—which should, for economy and for other reasons—be attached to the sanatorium contemplated.

I have, &c.,

J. ASHBURTON THOMPSON,

Chief Medical Officer of the Government.

Submitted.—C.W., 11/11/99.

## No. 11.

The Hon. Secretary of the Sydney Hospital for Sick Children to The Principal Under Secretary.

Dear Sir,

Wigram Chambers, Phillip-street, 17 November, 1899.

I have the honor to inform you that the Board of Management of the above Institution has taken into consideration the facts—

- (1) That the number of patients in the diphtheria ward has been steadily decreasing. There are twelve cots in the ward, and the average occupancy during the past four months has fallen to five.
- (2) That the expenses of this branch of the hospital, owing to its necessary isolation and the specially-trained nursing staff that has to be maintained, cannot be reduced and are quite disproportionate to the present results.

The marked decrease, not only in the mortality but also in the severity of this disease, following on a proper use of antitoxin, has led to its almost universal adoption by medical men in this as in other parts of the world, so that now many patients who would formerly have been sent to the diphtheria hospital are kept at home, because after the injection of antitoxin they rarely require hospital treatment.

Having regard to the foregoing, I am desired by my Board to intimate to the Government that owing to these changed conditions, and for financial reasons, it is proposed to close the diphtheria branch of the Hospital at the end of this year.

I have, &c.,

HAROLD W. FAIRFAX,

Hon. Secretary.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## PUBLIC HEALTH ACT.

(RETURN RESPECTING CONVICTIONS UNDER.)

*Printed under No. 4 Report from Printing Committee, 24 August, 1899.**[Laid upon the Table in accordance with promise made in answer to Question No. 9, Votes No. 17, 23rd August, 1899.]*

## Question.

- (9.) Convictions under Public Health Act :—Dr. Ross asked the Colonial Secretary,—
- (1.) The number of inspectors that are at present engaged in detecting food and liquor adulterations in the interest and for the protection of public health?
  - (2.) In how many cases have such inspectors obtained convictions under the Food and Liquor Adulteration and Public Health Act?
  - (3.) What is the nature of such convictions, if any?

## Answer.

Department of Public Health, New South Wales,  
Sydney, 23 August, 1899.

The number of inspectors at present engaged in detecting food and liquor adulterations in the interest of and for the protection of the public health could be given only after special inquiry of the several authorities authorised by the Act to appoint such inspectors.

Certain persons are empowered to take samples for the purpose referred to by the Public Health Act, section 52, namely, any Officer of the Board of Health, and any Inspector of Weights and Measures, or any Superintendent, Inspector, Sub-Inspector, or Sergeant of Police; and such power may be conferred on certain other persons by written authority of Mayors, or of the Inspector-General or any Superintendent of Police, namely, any officer of a Municipal Council, and any Constable. As regards the Board of Health, one officer suffices to purchase all the samples which can be analysed in the Board's Laboratory, and he regularly makes such purchases.

In answer to a similar question asked by Dr. Ross on February 23rd, it was stated that fifteen convictions had been obtained by the Board under the adulteration part of the Public Health Act, and these were for selling adulterated oatmeal, pepper, tea, and milk. No further conviction has been obtained. At the same time it was stated that twenty-one convictions were reported as having been obtained by the various local authorities under the Public Health Act, but that the information was available only for the latter three quarters of 1898. The nature of these convictions is not reported by them, but it is believed they related almost entirely to the adulteration of milk. During the first half of the present year convictions obtained by the various local authorities were reported by them to have been as follows :—In the Metropolitan combined districts, including the City of Sydney, six; in the Hunter River combined districts, nil; in the whole of the rest of the country, six.

C. A. SIMMS,  
Secretary.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

DEATHS FROM CONSUMPTION IN DISTRICTS OF WOLLONGONG, KIAMA, AND SHOALHAVEN.

(RETURN RESPECTING)

Printed under No. 3 Report from Printing Committee, 22 August, 1899.

[Laid upon the Table in accordance with promise made in answer to Question No. 5, Votes No. 12, 10 August, 1899.]

Question.

- (5.) Deaths from Consumption in Districts of Wollongong, Kiama, and Shoalhaven:—Mr. Alexander Campbell asked the Colonial Secretary,— (1.) How many persons have died of consumption during the five years ending 31st December, 1898, within the districts of Wollongong, Kiama, and Shoalhaven? (2.) The number of males and females? (3.) How many of each sex had attained the age of maturity? (4.) Is the death-rate from the above cause above or under the average rate in Great Britain?

Answer.

DEATHS FROM PHTHISIS.

SOUTH COAST, including Albion Park, Bega, Bemboka, Berry, Candelo, Eden, Helensburgh, Kiama, Milton, Moruya, Nowra, Wollongong, Woonona.

NOTE.—Causes of Death are published in Groups of Districts, hence the figures for the above Division of the Colony.

Table with 6 columns (Year) and 4 rows (Deaths from Phtthisis, Mean Population, Rate per 1,000 of Population). Data points for 1894-1898 are provided.

Under and over 20 years not given in this form. (See figures for New South Wales for approximate proportion.)

## NEW SOUTH WALES.

		1894.			1895.			1896.			1897.			1898.		
		Under 21 years.	21 years and over.	Total.	Under 21 years.	21 years and over.	Total.	Under 21 years.	21 years and over.	Total.	Under 21 years.	21 years and over.	Total.	Under 21 years.	21 years and over.	Total.
Deaths from Phthisis	Males...	42	600	642	52	600	652	51	562	613	41	546	587	48	621	669
	Females	53	347	400	50	314	364	69	345	414	50	327	377	59	360	419
	Total ...	95	947	1,042	102	914	1,016	120	907	1,027	91	873	964	107	981	1,088
Mean Population ...	Males...	665,970			679,055			690,155			702,255			715,347		
	Females	571,440			585,605			597,600			608,295			619,503		
	Total ...	1,237,410			1,264,660			1,287,755			1,310,550			1,334,850		
Rate per 1,000 of Population .....	Males...	·96			·96			·89			·84			·93		
	Females	·70			·62			·69			·62			·68		
	Total ...	·84			·80			·80			·74			·81		

## ENGLAND AND WALES FOR THE YEAR 1897.

		Under 20 years of age.*	20 years and over.	Total.
Deaths from Phthisis .....	Males...	2,878	20,168	23,046
	Females	3,650	14,946	18,596
	Total ...	6,528	35,114	41,642
Mean Population .....	Males...	.....	.....	15,047,580
	Females	.....	.....	16,007,775
	Total ..	.....	.....	31,055,355
Rate per 1,000 of Population .....	Males ..	.....	.....	1·53
	Females	.....	.....	1·16
	Total ...	.....	.....	1·34

\* Under 21 not available.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

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**CASE OF MR. SHERLOCK BARRON, NORTH BOTANY.**

(PETITION FROM THOMAS SHERLOCK BARRON, OF BOTANY, PRAYING FOR LEAVE TO APPEAR BEFORE SELECT COMMITTEE IN PERSON, OR BY ATTORNEY OR COUNSEL, AND TO EXAMINE AND CROSS-EXAMINE WITNESSES ON.)

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*Received by the Legislative Assembly, 23 August, 1899.*

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To the Honorable the Speaker and Members of the Legislative Assembly of New South Wales, in Parliament assembled.

The Petition of Thomas Sherlock Barron, of Botany, in the Colony of New South Wales,—

HUMBLY SHOWETH :—

1. That on the 15th day of August, in the year of our Lord one thousand eight hundred and ninety-nine, your Honorable House appointed a Select Committee to inquire into and report upon the claim of Mr. Sherlock Barron, formerly dairyman, North Botany, for loss sustained through the action of the Board of Health.

2. That your Petitioner humbly prays that he may be represented by counsel or attorney, or in person, before the Select Committee appointed to inquire into and report upon the matter, with the right to call witnesses and adduce evidence, and to examine and cross-examine such witnesses as may give evidence before the Select Committee.

And your Petitioner, as in duty bound, will ever pray.

THOMAS SHERLOCK BARRON.



1899.

(THIRD SESSION.)

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LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

---

REPORT FROM THE SELECT COMMITTEE

ON

CLAIM OF MR. SHERLOCK BARRON,  
NORTH BOTANY;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE

AND

MINUTES OF EVIDENCE.

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*Printed under No. 12 Report from Printing Committee, 30 November, 1899.*

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SYDNEY: WILLIAM APPLGATE GULLICK, GOVERNMENT PRINTER.

1899.

(THIRD SESSION.)

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EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE  
LEGISLATIVE ASSEMBLY.

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VOTES No. 13. TUESDAY, 15 AUGUST, 1899.

12. CLAIM OF MR. SHERLOCK BARRON, NORTH BOTANY:—Mr. Dacey moved, pursuant to Notice,—
- (1.) That a Select Committee be appointed to inquire into and report upon the claim of Mr. Sherlock Barron, formerly dairyman, North Botany, for loss sustained through the action of the Board of Health.
- (2.) That such Committee consist of Mr. Brunker, Mr. J. C. L. Fitzpatrick, Mr. James Thomson, Mr. Wilks, Mr. Fegan, Mr. Perry, Mr. Pyers, Mr. Carroll, and the Mover.
- Debate ensued.  
Question put and passed.
- 

VOTES No. 17. WEDNESDAY, 23 AUGUST, 1899.

2. CASE OF MR. SHERLOCK BARRON, NORTH BOTANY:—Mr. Dacey presented a Petition from Thomas Sherlock Barron, of Botany, praying that he may be represented by counsel, or attorney, or in person, before the Select Committee appointed to inquire into and report upon the claim of Mr. Sherlock Barron, formerly dairyman, North Botany, for loss sustained through the action of the Board of Health.
- Petition received.  
Ordered to be referred to the Select Committee.
- 

VOTES No. 33. THURSDAY, 26 OCTOBER, 1899.

4. CLAIM OF MR. SHERLOCK BARRON, NORTH BOTANY:—Mr. Dacey (*by consent*) moved, without Notice,—That Mr. See, Mr. Anderson, and Mr. Nielsen be added to the Select Committee now sitting on "Claim of Mr. Sherlock Barron, North Botany."
- Question put and passed.
- 

VOTES No. 44. THURSDAY, 23 NOVEMBER, 1899.

3. CLAIM OF MR. SHERLOCK BARRON, NORTH BOTANY:—Mr. Dacey, as Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, and Evidence taken before the Select Committee for whose consideration and report this subject was referred on 15th August, 1899.
- Referred by Sessional Order to the Printing Committee.
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1899.  
(THIRD SESSION.)

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CASE OF MR. SHERLOCK BARRON—NORTH BOTANY.

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REPORT.

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THE SELECT COMMITTEE of the Legislative Assembly, appointed on 15th August, 1899, “*to inquire into and report upon the claim of Mr. Sherlock Barron, formerly dairyman, North Botany, for loss sustained through the action of the Board of Health,*” and to whom was referred, on 26th October, 1899, a Petition from Thomas Sherlock Barron, “*praying to be represented by Counsel, or Attorney, or in person, before the Select Committee,*”—have agreed to the following Report:—

Your Committee, having examined the witnesses named in the List\* (whose \*See list, p. 5. evidence will be found appended hereto), find—

1. That Mr. T. S. Barron, who carried on the business of a dairyman, had a child pronounced by Dr. Gwynne-Hughes to have suffered from typhoid fever, and that, in accordance with the provisions of the Dairies Supervision Act, the Board of Health informed the Council Clerk of North Botany that typhoid fever had occurred on Mr. Barron's premises, and advised that the registration under the said Act should be immediately cancelled; which advice was carried out.
2. That the said child was subsequently removed to the Coast Hospital, and upon careful examination by Dr. Taylor, who had the case under his supervision for two days, pronounced to be suffering from congenital heart disease, of which the child subsequently died, as stated in the certificate of death.
3. That it therefore appears that the dairy was closed upon a mistaken diagnosis of the disease, and in consequence Mr. T. S. Barron has suffered a loss which entitles him to claim the favourable consideration of the Government.

J. R. DACEY,  
Chairman.

No. 3 Committee Room,  
Legislative Assembly,  
23rd November, 1899.

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PROCEEDINGS OF THE COMMITTEE.

THURSDAY, 31 AUGUST, 1899.

MEMBERS PRESENT :—  
None.

In the absence of a quorum the meeting called for this day lapsed.

THURSDAY, 26 OCTOBER, 1899.

MEMBERS PRESENT :—  
Mr. Bruncker, | Mr. Carroll,  
Mr. Dacey, | Mr. James Thompson.

Mr. Dacey called to the Chair.  
Entries from Votes and Proceedings appointing the Committee, and referring the petition of Thomas Sherlock Barron, read by the Clerk.  
Original petition before the Committee.  
Resolved (*on motion of Mr. Bruncker*),—That the prayer of the Petitioner be granted.  
Dr. J. D. Sly, Solicitor, appeared on behalf of Mr. Thomas Sherlock Barron.  
Ordered,—That the Secretary to the Board of Health and Mr. T. S. Barron be summoned to give evidence next meeting.

[Adjourned till Tuesday next, at 2:30 o'clock.]

TUESDAY, 31 OCTOBER, 1899.

MEMBERS PRESENT :—  
Mr. Dacey in the Chair.

Mr. Anderson, | Mr. Bruncker,  
Mr. J. C. L. Fitzpatrick, | Mr. Nielsen,  
Mr. James Thomson, | Mr. Wilks.

Entry from Votes and Proceedings, adding Mr. See, Mr. Anderson, and Mr. Nielsen to the Committee, read by the Clerk.  
Present:—Dr. J. D. Sly, Solicitor, representing Mr. Thomas Sherlock Barron.  
Thomas Sherlock Barron called in, sworn, and examined.  
Clarence Arthur Simms (*Secretary to the Board of Health*) called in, sworn, and examined.  
Witness *produced* correspondence, &c., in the case of Thomas Sherlock Barron.  
Witness withdrew.

[Adjourned till To-morrow, at 2:30 o'clock.]

WEDNESDAY, 1 NOVEMBER, 1899.

MEMBERS PRESENT :—  
Mr. Dacey in the Chair.

Mr. Anderson, | Mr. Bruncker,  
Mr. Nielsen, | Mr. James Thomson,  
Mr. Wilks.

Present:—Dr. J. D. Sly, Solicitor, representing Mr. Thomas Sherlock Barron.  
George Henry Taylor (*Medical Practitioner*) called in, sworn, and examined.  
Witness withdrew.  
William Green (*House and Land Agent*) called in, sworn, and examined.  
Witness withdrew.  
Thomas Alexander Watson (*Council Clerk and Inspector under the Dairies Supervision Act, North Botany*) called in, sworn, and examined.  
Witness withdrew.  
Alfred George Fletcher (*Van Proprietor*) called in, sworn, and examined.  
Witness withdrew.  
Alfred Cross (*Draper*) called in, sworn, and examined.  
Witness withdrew.  
Caroline Mudge called in, sworn, and examined.  
Witness withdrew.  
Clarence Arthur Simms recalled, and further examined.  
Witness withdrew.

[Adjourned till To-morrow, at 2:30 o'clock.]

THURSDAY

## THURSDAY, 2 NOVEMBER, 1899.

## MEMBERS PRESENT:—

Mr. Dacey in the Chair.

Mr. Bruncker, | Mr. Nielsen.

Present:—Dr. J. D. Sly, Solicitor, representing Mr. Thomas Sherlock Barron.  
 Ordered, That Dr. Gwynne Hughes be summoned to give evidence next meeting.  
 [Adjourned till Wednesday, 15th November, at 2:30 o'clock.]

## WEDNESDAY, 15 NOVEMBER, 1899.

## MEMBERS PRESENT:—

Mr. Dacey in the Chair.

Mr. Bruncker, | Mr. J. C. L. Fitzpatrick,  
 Mr. Nielsen, | Mr. James Thomson.  
 Mr. Wilks.

Present:—Dr. J. D. Sly, Solicitor, representing Mr. Thomas Sherlock Barron.  
 The Clerk, by direction of the Chairman, read a letter from Dr. Gwynne-Hughes, who had been requested to give evidence, stating that Barron had brought an action against him in the District Court in reference to the matter before the Committee, thereby causing him considerable inconvenience, loss of time and money, and that, therefore, he declined to attend before the Committee.

Resolved (*on motion of Mr. Bruncker*), That the Chairman take the necessary steps to compel the attendance of Dr. Gwynne-Hughes at 2:30 o'clock to-morrow.  
 [Adjourned till To-morrow, at 2:30 o'clock.]

## WEDNESDAY, 16 NOVEMBER, 1899.

## MEMBERS PRESENT:—

Mr. Dacey in the Chair.

Mr. Bruncker, | Mr. Anderson,  
 Mr. J. C. L. Fitzpatrick, | Mr. Nielsen,  
 Mr. James Thomson.

Present:—Dr. J. D. Sly, Solicitor (*representing Mr. Thomas Sherlock Barron*).  
 Devereux Gwynne-Hughes (*Medical Practitioner*), called in, sworn, and examined.  
 Witness withdrew.

Dr. Sly addressed the Committee.

Room cleared.

The Clerk submitted claim from Dr. Gwynne-Hughes for £1 1s., witness's expenses.

Claim considered and passed.

Committee deliberated.

[Adjourned till Wednesday next, at 2:30 o'clock.]

## WEDNESDAY, 22 NOVEMBER, 1899.

## MEMBERS PRESENT:—

Mr. Dacey in the Chair.

Mr. Bruncker, | Mr. Nielsen,  
 Mr. James Thomson, | Mr. Wilks.

Committee deliberated as to the Report.

[Adjourned till To-morrow at 3:30 o'clock.]

## THURSDAY, 23 NOVEMBER, 1899.

## MEMBERS PRESENT:—

Mr. Dacey in the Chair.

Mr. Anderson, | Mr. Carroll,  
 Mr. Nielsen.

Chairman submitted Draft Report.

Same read, amended, and agreed to.

Chairman to report to the House.

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1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MINUTES OF EVIDENCE

TAKEN BEFORE

THE SELECT COMMITTEE

ON

## CASE OF MR. SHERLOCK BARRON, NORTH BOTANY.

TUESDAY, 31 OCTOBER, 1899.

Present:—

MR. ANDERSON,

MR. BRUNKER,

MR. J. C. L. FITZPATRICK,

MR. NIELSEN,

MR. JAMES THOMSON,

MR. WILKS.

J. R. DACEY, Esq., IN THE CHAIR.

Dr. J. D. Sly, Solicitor, appeared on behalf of Mr. Thomas Sherlock Barron.

Thomas Sherlock Barron sworn and examined:—

1. *Chairman.*] Were you at one time engaged at North Botany as a dairyman? Yes.
2. *Dr. Sly.*] Will you state the facts of the case from the beginning? Yes. On the 16th February, 1896, I called in Dr. Gwynne Hughes to see my daughter, who was sick.
3. How old was she? Six years and a month. Dr. Gwynne Hughes came to the house about 12 o'clock. He looked at the child and said he thought she was suffering from an attack of typhoid fever. He added, "On account of your place being a dairy, the matter must be reported to the Board of Health, and I would recommend you to send your child to the hospital." I replied that I would not do so. He then said, "The authorities will stop your business." I said, "They can do so; I will not allow the child to go to the hospital." He then remarked, "I must report the matter to the Board of Health; you are under a penalty of £100 and I am under a penalty of £50 if the fact that the child is suffering from typhoid fever is not reported."
4. Did he say anything about you selling your milk? No.
5. *Chairman.*] Did he caution you not to serve milk to your customers? He did not. He said the matter would have to be reported to the Board of Health. He asked for a pen and ink, and said he would write a report. I asked him to let the matter stand over until the morning, when we might have an opportunity of getting the child removed to another place. He replied that the report would have to go in that night. He gave me a paper, and told me to take it to the Board of Health, and I did so.
6. *Dr. Sly.*] What happened then? I gave the paper to an official of the Board of Health, and he said, "You can sell no milk whilst the child is on your premises." I asked him what I should do, and he said, "You had better take the paper to Dr. Paton, Richmond-terrace, and he will tell you what to do."
7. *Chairman.*] What occurred then? I took the paper to Dr. Paton, and he asked me if I would promise to sell no milk whilst the child was on the premises. He asked me what I could pay for attendance on the child in the hospital, and I told him I did not want her to go to the hospital. I asked him to allow me a day or two in order to get the child removed to some other house, or to get my cows away. He asked me if I would promise not to sell milk as long as the child was in the house, and I said I would.

T. S. Barron.

31 Oct., 1899.

- T. S. Barron. 8. What occurred after you made that promise? I went home, and next morning about half-past 7 o'clock, Mr. Watson, the Council Clerk at North Botany and Inspector of Dairies, came into the place. He told me that I was liable to heavy fines if I sold milk, and that I was to do what the Board of Health told me to do in advising me to send the children to the hospital.
- 31 Oct., 1899. 9. *Dr. Sly.*] Did you temporarily close your dairy? He told me that he would most likely receive a letter by the mail that morning, and that he would then have to come up and close my place.
10. Did he do so? I did not see him.
11. What happened after that? Dr. Gwynne-Hughes came back about half-past 4 o'clock. That was on the Monday. He looked at the child, and asked me what they said at the Board of Health. I told him. I went to the cow-bails, and he followed me out and said, "If I were you I would sell milk; I would not take any notice of what they say at the Board of Health." I told him that I could not do that, and that I had been told not to sell. I went into the house and talked the matter over with my wife, and she agreed to let the child go to the hospital. I thereupon saw Dr. Gwynne-Hughes, and received an order from him which I had to take to the Board of Health.
12. What happened on the following day—Tuesday? The ambulance came out from the hospital. Prior to its arrival I saw Dr. Gwynne-Hughes in the street, and asked him to come and see the child. He came in, and stated it was a lot better. Half an hour after that the ambulance came out and took the child to Little Bay Hospital.
13. Did you see the child at Little Bay Hospital? Yes, on the following day, Wednesday.
14. Had you any conversation with the doctor at Little Bay as to what was the matter with the child? The nurse said, "That child is in a terrible state with its heart." I asked her if she thought the child would get rid of the fever, and she replied that Dr. Taylor did not think she was suffering from fever.
15. Did you see Dr. Taylor? Yes, I went over and saw him, and he said, "The child is in a terrible state with its heart." I asked him if he thought the child was suffering from fever, and he said, "I do not think so."
16. *Dr. Sly.*] Did anyone see the child at your house before it left? Yes.
17. Did anyone competent to judge of its condition see it? Yes, a nurse.
18. What was her opinion? She said she did not believe the child had fever.
19. *Mr. Wilks.*] Was she a trained nurse? I think she is a certificated nurse—Mrs. Moloney, a midwife.
20. *Chairman.*] Where did she see the child? At my house.
21. What happened after you saw the child on the Wednesday in the hospital? I went home and took its mother to see it. I was going out the next morning about 6 o'clock to see the child, when I met a man named Joe Tunbridge, who told me the child was dead.
22. *Dr. Sly.*] Do you produce a copy of the certificate of death? Yes.

No. of Application, 97/3176. 1896.

DEATHS Registered in the District of Botany, at Waterloo, in the Colony of New South Wales, by James Skinner, District Registrar.

No.	Description.			(1) Cause of Death; (2) Duration of last illness; (3) Medical Attendant by whom certified; and (4) When he last saw Deceased.	(1) Christian Name and Surname of Father; (2) If known, with rank or Profession; (3) Christian and Maiden Surname of Mother.	Signature, Description, and Residence of Informant.	(1) Signature of District Registrar; (2) Date; and (3) Where Registered.	If Burial Registered.		Where born, and how long in the Australian Colonies, stating which.
	When and where died.	Name and Surname, Rank or Profession	Sex and Age.					When and where Buried. Undertaker by whom Certified.	Name and Religion of Minister, Names of Witnesses of Burial.	
38	20 Feb., 1896, Coast Hospital, Little Bay.	Mary Sherlock Barron.	Female, 6 years.	(1) Congenital heart disease—pericarditis; (2) 6 years; (3) Dr. G. H. Taylor; (4) 19 February, 1896.	(1) Thomas Sherlock Barron; (2) dairyman; (3) Mary Smith.	Certified by G. H. Taylor, Medical Superintendent, Coast Hospital, and Thomas Sherlock Barron, father, High-st., North Botany.	(1) James Skinner; (2) 20 Febr'y, 1896; (3) Waterloo.	21 Feb., 1896, Presbyterian Cemetery, Rookwood. Joseph Medcalf.	W. J. Cuthbert, Presbyterian, Alexr. Watt, Sidney B. Medcalf.	North Botany, New South Wales.

1036. I, Alfred Parry Long, Registrar-General of New South Wales, do hereby certify that the above is a true copy of an entry in a register of deaths kept at the Registrar-General's Office, Sydney, and extracted this eleventh day of August, 1897.

A. PARRY LONG,  
Registrar-General.

23. What does the certificate say was the cause of death? Congenital heart disease—pericarditis. The certificate shows that the child died on the 20th February, 1896, at the Little Bay Hospital. The medical attendant was Dr. G. H. Taylor.

24. Would you have sent the child to the hospital had it not been for the order of the Board of Health? No.

25. *Chairman.*] Did the North Botany Council send you an order to close the dairy? No. The Inspector told me on the Monday to be sure and do as the Board of Health bade me.

26. *Dr. Sly.*] Did you call at the North Botany Council Office and see a letter, of which the following is a copy:—

Dairy Supervision Act.

Sir,

I have the honor to inform you that, in accordance with the seventh section of the above Act, it has been reported to the Board that typhoid fever has occurred on the premises of Mr. Sherlock, High-street, North Botany, and to advise that the registration under the said Act should be immediately cancelled, and remain so until patient recovers or is removed and the premises are disinfected, and all danger of infection past.

I have, &c.,  
C. A. SIMMS,  
Acting Secretary.

The Council Clerk, North Botany.

Yes.

27. In accordance with this letter I believe your premises were closed? Yes.

28. *Mr. Anderson.*] I suppose they were closed under the instructions of the Board of Health? Yes, according to the newspaper.

29. *Chairman.*] According to what newspaper? *The Suburban Times.*

30. *Mr. Neilsen.*] When did you see a copy of the letter which has just been read? About a week after the occurrence.

31. *Dr. Sly.*] Was the fact that there had been an alleged outbreak of fever commented on in the district? Yes. I could not sell milk on the Monday or Tuesday on account of the order from the Board of Health; but I sent out milk which I purchased elsewhere. I bought it for a few customers from the Fresh Food and Ice Co. T. S. Barron.  
31 Oct., 1899.
32. Was the report that there had been an outbreak of typhoid fever on your premises spread abroad in the districts of Botany and Redfern? Yes.
33. How did it affect your customers? A large number of them stopped taking milk.
34. How many customers had you when the trouble occurred? About seventy. I produce a list of them, which I put in as an Exhibit.

Goron Alley, 2 pints.	Opposite Weirick, 2 pints.	Kinkade, 2 pints.	Steadman, 4 pints.
Colston, 2 pints.	Bell, 1 pint.	75, Wellington-st., 1 pint.	Rose, 2 pints.
Dowdell, 3 pints.	James, 1 pint.	Avis, 2 pints.	Williams, 2 pints.
Shepherd, 1 pint.	Fahey, 2 pints.	Russell, 1 pint.	Peat, 1 pint.
Marshall, 1 pint.	Kinkade, 1 pint.	Long, 90, Buckland-st., 1 pint.	14, William-street.
Moloney, 1 pint.	Brown, 1 pint.	Avis, 2 pints.	McAuslin, 1 pint.
Garland, 1 pint.	Hocking, 3 quarts.	Bargery, 2 pints.	Fairweather, 1 pint.
Anderson, 1 pint.	Shop, Pitt-street, 5 quarts.	Kennedy, 1 pint.	Mudge, 2 pints.
Bird, 1 pint.	Williamson, 6 quarts.	Cross, 1 pint.	5, George-street, 1 pint.
Boyd, 1 pint.	Flynn, 1 pint.	Robertson, 16 quarts.	19, George-street, 2 pints.
Burrows, 1 pint.	Lee, 1 pint.	Duffy, 18 quarts.	Hill, 2 pints.
Lambert, 2 pints.	Clarke, 1 pint.	Blinkhorn, 8 quarts.	Morrison, 1 pint.
Murry, 2 pints.	Smith, 1 pint.	63, Wellington-st., $\frac{1}{2}$ pint.	Wright, 2 pints.
Marsh, 2 pints.	Howard, $\frac{1}{2}$ pint.	Newman, 2 pints.	4, Zemia-street, 1 pint.
McConnell, 3 pints.	Nash, 1 pint.	80, Pitt-street, 1 pint.	Smith, Morehead-street, 1 pint.
McKenna, 1 pint.	Harvey, 1 pint.	2, Pitt-street, 1 pint.	72 customers.
Bain, 1 pint	Kelly, 1 pint.	115, Pitt-street, 1 pint.	
13, John-street, 1 pint.	Pender, 1 pint.	Goodyre, 2 pints.	

35. Did most of your customers discontinue taking milk? Yes.
36. Did they give any reason why? Some did and some did not. Those who did said they would not take any more milk as there was fever about the place.
37. Did any notice appear in any of the newspapers with reference to the matter? Yes, in the *Redfern Times*.
38. Does that newspaper circulate in Botany and Redfern? Yes, and in Waterloo.
39. Will you kindly read the notice to which you refer? Yes, it is as follows:—

From Board of Health, to the effect that typhoid had been reported in the dairying premises of Mr. Sherlock, and also of Mr. Furlong, of King-street.—Received. The Council Clerk explained that on receipt of the notice he had immediately inspected Mr. Sherlock's premises and had them temporarily closed.

40. *Mr. J. C. L. Fitzpatrick.*] I presume that it is an extract from a report of the meeting of the local Council? Yes.
41. *Dr. Sly.*] When was it published? On the 7th March, 1896.
42. *Mr. J. C. L. Fitzpatrick.*] I presume that extract refers to correspondence received from the Board of Health? Yes.
43. *Dr. Sly.*] Do you produce another extract which appeared in the *Suburban Times*? Yes. The following was published on the 30th May, 1896:—

We have been requested to draw attention to the fact that Mr. T. S. Barron's dairy premises at North Botany have been wrongly included by the Board of Health in the list of premises affected by typhoid. Dr. Taylor, the Medical Superintendent of the Hospital, has certified that the child was not suffering from fever, and the Board, therefore, had no justification for that portion of the report.

I also produce another extract published on the same date, as follows:—

From T. S. Barron, with reference to a report of typhoid fever on his premises. According to the *Suburban Times* a report had been received from the Board of Health. This had damaged his business, and as the Medical Superintendent of the Hospital, Dr. Taylor, reported that the child had no fever, he desired that the true facts should be made known.

On the motion of Alderman Sparkes it was decided that full publicity be given to Mr. Barron's communication, and that a letter should be sent to the editor of the *Suburban Times* asking him to specially note it.—Seconded and carried.

44. Did that have the effect of restoring confidence and bringing your customers back? No.
45. What were your takings at the time? From £10 to £10 10s. a week.
46. *Mr. Wilks.*] Is the list of names that you have put in taken from a journal or ledger? Yes.
47. *Dr. Sly.*] What were your profits at the time? I was clearing about £4 a week.
48. *Chairman.*] Clear of all expenses? Yes; clear of all expenses attached to the dairy.
49. *Dr. Sly.*] When you found your business was practically ruined, what did you do with your cows and plant? I gave the cows to a man named Bridge, to take to Liverpool. He said he would graze them for 9d. a head. I sold one cow and a horse and cart to a neighbour.
50. *Mr. J. Thomson.*] How many cows had you? Ten.
51. *Dr. Sly.*] Were they in full milk? Yes.
52. What were they worth? About £3, for milking purposes.
53. What do reckon would have been a fair price for your business at that time? I could have got £150 for it a short time before this occurred.
54. *Mr. Wilks.*] Have you ever been offered that amount? Yes; Mr. John Green wanted to buy it for a friend.
55. *Dr. Sly.*] When the trouble arose, did you try to sell the business? Yes; I put it into an agent's hands.
56. Did anyone come to inquire about it? Yes; two people.
57. What was the result? They would not buy it. One went away and said there was typhoid fever on the place, and he would not buy.
58. *Mr. J. Thomson.*] But there was no typhoid fever about the place then;—I suppose you had complied with the conditions of the Board of Health in regard to fumigation, and so on? Yes; but people were frightened to buy the business.
59. How much milk did you sell in a day? From 100 to 110 quarts.
60. What was the price of milk at that time? I sold a good deal to shops; the price would average about 3½d. per quart.

- T. S. Barron. 61. *Dr. Sly.*] Are you clear on the point that if it had not been for the order of the Board of Health you would not have closed your dairy nor sent the child away? I would not.
- 31 Oct., 1899. 62. Do you think that hasty action in sending the child away in its then state of health caused its death? Yes; that is my opinion.
63. *Chairman.*] What do you consider was the actual loss you sustained by the action of the Board of Health in closing your dairy? I lost the dairy.
64. Did you sell the stock? Yes; I got £20 for a cart and horse and cow.
65. *Dr. Sly.*] What did you get for all your plant? £26. Some of the cattle died on the run to which they were sent. In the beginning of June Mr. Briggs sent word that some of them were dead, and that if I did not take them away they would all die, as he had no grass.
66. *Mr. Anderson.*] What was the dairy worth to you at the time the trouble arose? It was worth £200 to me. It was worth £150 to sell.
67. You say you removed your cows in consequence of what occurred? Yes; I paid 9d. a week for the feed of each cow after they were sent away.
68. *Mr. J. Thomson.*] How many customers were you left with after this occurred? About thirty. Some of the thirty customers had stock. I lowered the price of milk to them to 2d. per gallon.
69. Had you any cash customers in addition to the sundry customers to whom you have referred? Yes. I used to leave about 7 quarts of milk a day at the house, and this my wife sold for cash. On an average I supplied about 100 quarts of milk a day, and sometimes more.
70. *Mr. Brunker.*] The market value of your plant was £150, and you had to sell for £26? Yes.
71. Did you bring an action against Dr. Gwynne Hughes in the law courts? Yes.
72. For what amount? £200.
73. For what offence? On account of negligence in the treatment of my child.
74. Did you succeed in your action? No.
75. Were any costs given against you? Yes.
76. Do you know what Dr. Gwynne Hughes' defence was? No.
77. What amount did the costs come to? About £60.
78. *Dr. Sly.*] Did Dr. Taylor give evidence in that case? Yes.
79. Can you tell the Committee the nature of his evidence as to what the child was suffering from;—did he say it was suffering from typhoid fever or heart disease? He said it was suffering from heart disease.
80. Did he state that, in his opinion, the child was not suffering from typhoid? He did.
81. *Mr. Brunker.*] Were you compelled to suspend your business? The customers gave up—not the whole of them—and I was losing about £2 a week.
82. *Mr. J. Thomson.*] Was the damage done after reports were published in the newspapers? A good deal of damage was done before that. I lost all the trade from the house before the reports appeared in the newspapers. Business was practically suspended before the reports were published in the newspapers.
83. *Mr. Brunker.*] Was Dr. Gwynne Hughes your family doctor? No; the family doctor was away at the time.
84. *Mr. J. Thomson.*] I believe that Dr. Taylor and Dr. Gwynne Hughes were the only two medical gentlemen who examined the child? That is all I know of.
85. *Dr. Sly.*] Did the nurse who accompanied the child to the Little Bay Hospital make any remark about its condition? Yes; she said its temperature was very low for a child suffering from fever. She asked when the doctor saw her, and I told her he saw her about half an hour previously. She then said she supposed it would be all right.

Clarence Arthur Simms, Secretary to the Board of Health, sworn and examined:—

- C. A. Simms. 86. *Dr. Sly.*] Do you produce any document in connection with the case? Yes, the whole of them.
- 31 Oct., 1899. 87. Can you pick out any document giving instructions from the Board of Health respecting an alleged outbreak of typhoid fever on Barron's premises? I can produce the circular letter, a copy of which I have with me.
88. *Chairman.*] We want a letter bearing directly on the case, and instructing the local authorities to close the dairy? I have that. It is not endorsed, because it was a circular letter; but I have the original entry of the letter having been sent to the local authorities. The circular is as follows:—

BOARD OF HEALTH.

Offices, 127, Macquarie-street, Sydney,

189 .

DAIRIES SUPERVISION ACT.

Sir,

I have the honor to inform you that, in accordance with the seventh section of the above Act, it has been reported to this Board that \_\_\_\_\_ has occurred on the premises of \_\_\_\_\_ and to advise that the registration under the said Act should be immediately cancelled, and remain so until the patient recovers or is removed, the premises are disinfected, and all danger of infection past.

I have the honor to be,

Sir,  
Your obedient Servant,

Secretary.

89. I suppose the name filled in was that of Thomas S. Barron? Yes; and it was sent to the local authority of the district.
90. Do you think the letter produced by Mr. Barron is an exact copy of that which was sent? No; the words "the Board" are used instead of the words "this Board." The words "Mr. Sherlock" are also used, whereas the name should be "Thomas S. Barron." Substantially, however, it is a correct copy.
91. *Dr. Sly.*] Have you a copy of Dr. Taylor's report? Yes; the original is here.
92. I want the original letter sent by Dr. Taylor to the Board of Health reporting on this case? There was no such letter. Dr. Taylor was the Medical Superintendent of the Coast Hospital. The child was removed from Botany to the Coast Hospital, and that is how Dr. Taylor came to have knowledge of it. Dr. Gwynne Hughes was the medical practitioner attending the case, and he reported that it was a case of infectious disease on dairy premises.
93. What did Dr. Taylor report? He reported nothing until Mr. Barron raised the question. Mr. Barron, I think, stated that the child was suffering from heart disease, and not from typhoid fever. Dr. Taylor

Taylor confirmed that, and said there was no trace of typhoid. There are one or two medical questions which he answers, and the fact remains that there was a difference of medical opinion. I may mention that when Mr. Barron fought the case in the court Dr. Gwynne Hughes was exonerated. C. A. Simms.  
31 Oct., 1899.

94. *Mr. Bruncker.*] The fact is, then, that the Board took action on account of the representation made by Dr. Gwynne Hughes, and not by Dr. Taylor? Quite so. Dr. Gwynne Hughes reported that there was a case of infectious disease on dairy premises, and that was acted upon as a matter of course without further inquiry.

95. *Dr. Sly.*] You say that Dr. Taylor stated that there was no typhoid? Yes.

96. *Mr. Anderson.*] Is there any report showing that Dr. Taylor examined the child prior to or after death? His report was made after the child's death.

97. *Dr. Sly.*] I believe that Dr. Taylor attended the child during its illness in the hospital? Yes. She was there only two days.

98. *Mr. Bruncker.*] Was the notice to close the dairy issued on Dr. Taylor's authority? No. It was issued as a matter of form on the receipt of the formal letter from Dr. Gwynne Hughes, which stated that there was a case of typhoid fever on registered dairy premises.

99. *Mr. Wilks.*] Is it usual, when you are informed by a local medico, to take action? Yes; it is done fifty times a year.

100. You have no officer of your own to make a report? No.

101. *Mr. Anderson.*] Medical men are under a penalty if they do not report cases of fever which come under their notice? That is so.

102. *Dr. Sly.*] If an incompetent medical man reported to you, would you act on his report? On the report of a legally qualified medical practitioner.

103. You would not take the consequences to the individual concerned into consideration? I do not see how we could. If a man is qualified he is supposed to be competent.

104. You give orders, I suppose, to the local authorities to close dairy premises in cases of fever? We notify them, and we leave the matter in their hands.

105. Practically, you give authority to close the premises? Yes. The 7th section of the Act requires a report to be made to one of several persons, but it is more commonly made to me as Secretary of the Board of Health.

106. When you are appealed to in this way you give orders which practically have the effect of closing the dairy? Yes.

107. *Mr. Anderson.*] And the local authorities are bound to act upon the instructions they receive? Yes.

108. Were you Secretary to the Board at the time this trouble occurred? Yes.

109. You acted, then, simply upon the report of Dr. Gwynne Hughes? Yes.

110. Is Dr. Gwynne Hughes an officer of the Department? No; he is a private practitioner.

111. You consider, then, that you are not in any way responsible for his acts? Not at all. He is a legally qualified medical practitioner.

112. *Dr. Sly.*] Has he ever held any office in connection with the Board of Health? No; he is an officer of the City Council.

113. He is sometimes called a medical officer? Dr. Hughes is the City Health Officer, under the control of the Municipal Council.

114. *Chairman.*] Is there any further statements you would like to make in connection with the case? Only this general point: that it seems to me to depend upon a difference of medical opinion, which can never be cleared up now, as the patient is dead. Legally qualified men, like Dr. Gwynne Hughes, for instance, report from forty to fifty of these cases a year. A circular, a copy of which I have read, is sent to each local authority. The premises are closed, or the patient is removed. The premises are disinfected, and as a rule we never hear anything more of them. Mr. Barron, who called on Professor Stuart, who was then the head of the Department, said he had been damaged by newspaper reports. Those reports, I suppose, were communicated by the local council. All our business is confidential.

115. *Dr. Sly.*] Is there anything in the circular letter to which you have referred to show that it is confidential? No.

116. As a matter of fact, the letter which has been put in as evidence is a copy of a circular letter which was sent to the council and from them to Barron? Yes.

117. They did not seem to look upon it as confidential? I suppose that was due to want of discretion. I should like to emphasise the fact that from forty to fifty of these cases happen every year, and that we never hear any more of them. The steps we take are all in the course of law.

118. *Mr. J. Thomson.*] I suppose the cases to which you refer are cases where typhoid fever has occurred? Yes, typhoid fever, scarlet fever, diphtheria, measles, syphilis; half-a-dozen proclaimed diseases.

119. In this instance Barron alleges that there was no fever;—he alleges that there was heart disease? Dr. Taylor says it was congenital heart disease. Questioned by Dr. Ashburton Thompson, he said that there might have been traces of typhoid. There might have been latent or dormant typhoid, but the time was too short for him to determine. The patient was only two days under treatment. Please remember that I am speaking from memory. I have not read the papers for a twelvemonth.

120. Was a *post-mortem* examination held? No.

121. *Mr. J. Thomson.*] Would it be practically impossible to close a dairy without the fact of it being closed becoming public property? Amongst a man's customers, perhaps—I do not know otherwise.

122. *Mr. Anderson.*] If you have not been apprised by a medical man that fever was prevalent on Barron's premises, you would not have issued instructions for them to be closed? No, we must be moved by a medical man.

123. *Mr. Bruncker.*] All you did was to comply with the conditions of the 7th section of the Act? That is all.

124. *Mr. Anderson.*] There is no doubt that the premises were closed in consequence of Dr. Gwynne Hughes' report and your instructions? There is no doubt of that.

125. *Mr. J. Thomson.*] And if any mistake has been made it has been made by Dr. Gwynne Hughes? I cannot say that. It rests between the two doctors. There was a difference of medical opinion.

126. *Dr. Sly.*] Still it was on your authority that the step was taken for closing the dairy? Yes; moved by Dr. Gwynne Hughes, who reported that there was infectious disease on the premises.

WEDNESDAY, 1 NOVEMBER, 1899.

Present:—

MR. ANDERSON.		MR. NIELSEN.
MR. BRUNKER.		MR. JAMES THOMSON.
MR. WILKS.		

J. R. DACEY, ESQ., IN THE CHAIR.

Dr. J. D. Sly, Solicitor, was present on behalf of Mr. Thomas Sherlock Barron.

George Henry Taylor, medical practitioner, sworn and examined:—

- G. H. Taylor. 127. *Chairman.*] Were you the Medical Superintendent of the Coast Hospital in 1896? Yes.
128. Do you remember attending a child, 6 years of age, of the name of Barron? Yes.
- 1 Nov., 1899. 129. Did the child die? Yes.
130. What was the cause of death? In my opinion, the cause of death was congenital heart disease, with lung complication.
131. *Dr. Sly.*] Did you send in a report about the case? Yes.
132. I believe you reported that the child died from congenital heart disease and pericarditis, and that she had no symptoms of typhoid fever? That is correct.
133. What are the general symptoms of heart disease and pericarditis? In this particular case the child was born with a malformed heart. She suffered from palpitation, and was particularly liable, as all these cases are, to lung complications.
134. As far as you saw, there were no signs of typhoid fever? I could not say she had no symptom, because she was feverish; but she had no symptom indicative of typhoid fever.
135. You stated in your report, "she had no symptom of typhoid fever"? That would be incorrect, because in every case of typhoid fever there is feverishness, and this child was feverish.
136. She was simply feverish as contra-distinct from typhoid feverishness? Yes.
137. She had no fever? In my opinion no typhoid fever.
138. *Mr. Bruncker.*] Are there exceptional complications in connection with typhoid which you would have noticed in your diagnosis? Yes.
139. *Dr. Sly.*] How long was she with you? Two days.
140. Had you frequent opportunities of examining her? Yes. I saw her several times each day.
141. *Mr. Anderson.*] Were you aware how long the child was sick prior to admission? I cannot very well remember now.
142. *Chairman.*] Was a *post-mortem* examination held? No; the father removed the body almost as soon as the child was dead.
143. *Dr. Sly.*] Do you remember the father coming to see you shortly after the admission of the child? Yes.
144. Do you remember telling him that in your opinion there was no typhoid? Yes.
145. *Mr. Bruncker.*] Was Dr. Gwynne-Hughes associated with the case at the Hospital? No.
146. Was he there at any time after the child was received? No. When the child was admitted I did not know that it came from a milk-vendor. I treated it as an ordinary case, and at the end of twenty-four hours I decided that it was not a case of typhoid.
147. *Dr. Sly.*] Was it suggested to you in any way that it was suffering from typhoid? Yes; it came in as a case of typhoid.
148. And you diagnosed the disease bearing that in mind? Yes. I should like to mention that about that particular time, in the locality in which the child was living, there was an outbreak of typhoid. A great number of cases had been removed from the vicinity in which the child lived.

William Green, house and land agent, sworn, and examined:—

- W. Green. 149. *Dr. Sly.*] Have you been engaged in business for a number of years? Yes.
- 1 Nov., 1899. 150. Have you had a good deal of experience in buying and selling businesses? Yes; we do a large business in dairies, and that kind of thing.
151. How long have you known Mr. Barron? Ten or twelve years.
152. Do you remember, three years ago, having any conversation with him as to the sale of his business? In December, 1895, I went to see him and asked him if he would sell his dairy. He said he would if he could get his price—£200. He said his net profits were £4 a week. We sent a man to inspect, but he did not purchase.
153. Was that a fair value if the profits were £4 a week? Yes.
154. *Mr. Bruncker.*] How do you arrive at the value? By what other people give for dairies.
155. *Mr. Anderson.*] Do you think £200 is sufficient if the net profits were £4 a week? That is about the usual price.
156. *Dr. Sly.*] In other words, about a year's profits? Yes.
157. Did Mr. Barron apply to you again after that? In November, or January of the following year, he called and said he wished to sell his dairy. I then sent another client to inspect. He made some inquiries, and came back and told me that it was of no use him thinking about that dairy, as there was typhoid fever there and Mr. Barron had lost a lot of his customers. I think I wrote to Mr. Barron, if not he called to see me. I told him it was of no use trying to sell his dairy when there was typhoid fever there.
158. Is a business of that kind worth anything after an alleged outbreak of typhoid? No. It would spoil our connection by trying to sell one under such circumstances. I told him I would not care about going further with the matter, as he had had fever there and had lost all his customers.

Thomas

Thomas Alexander Watson, Council Clerk and Inspector under the Dairies Supervision Act, North Botany, sworn and examined:—

159. *Dr. Sly.*] Do you remember the alleged outbreak of typhoid fever on Barron's premises at North Botany? Yes. T. A. Watson.  
1 Nov., 1899.

160. Did you receive any instructions from the Board of Health at that time? Yes; I received this letter:—

Dairies Supervision Act.

Sir,

Board of Health Office, 127, Macquarie-street, Sydney, 19 February, 1896.

I have the honor to inform you that, in accordance with the seventh section of the above Act, it has been reported to this Board that typhoid fever has occurred on the premises of Mr. Sherlock, High-street, North Botany, and to advise that the registration under the said Act should be immediately cancelled, and remain so until the patient recovers or is removed, the premises are disinfected, and all danger of infection past.

I have, &c.,

C. A. SIMMS,

Acting Secretary.

The Council Clerk, North Botany.

161. *Chairman.*] In accordance with this document did you issue instructions to Mr. Barron that he was not to sell any more milk? Yes.

162. *Dr. Sly.*] And you temporarily closed his dairy? Yes. It was closed on the 21st, and was opened again on the 24th, after it had been disinfected and the child had been removed to the hospital.

163. *Mr. Brunker.*] Then the dairy was only closed three days? About that time.

164. *Chairman.*] I believe that Mr. Barron was usually known about the place as Mr. Sherlock? No; I never heard the name of Sherlock until I received the notice from the Board of Health. He was always called Thomas Barron, and he is entered in our register as Thomas Barron.

165. How do you know, then, that this notice applied to him? At the time there was only one dairyman in that street. I knew there was a case of supposed typhoid fever on the premises, because there was information received from Mr. Barron himself.

166. *Dr. Sly.*] When did you receive that information? Somewhere about the beginning of the week. I think he came to the Town Hall and notified me.

167. Before closing the dairy, had you heard the report that typhoid had broken out? Yes.

168. Was the matter currently reported in the district? I only heard it from Mr. Barron.

Alfred George Fletcher, van proprietor, sworn and examined:—

169. *Dr. Sly.*] Do you know the dairy of Mr. Barron? Yes; he is a neighbour of mine.

170. Had you been a customer of his for some time prior to February, 1896? Yes; from the time he started business. A. G.  
Fletcher.  
1 Nov., 1899.

171. What made you leave off being a customer? My daughter advised me to get condensed milk, as there was fever in Barron's place.

172. Did you ever deal with Mr. Barron again? No.

173. Was it in consequence of the reported outbreak that you ceased to deal with him? Yes.

174. Was the report of the alleged outbreak rapidly spread about? Yes, very rapidly.

Alfred Cross, draper, sworn and examined:—

175. *Chairman.*] Do you know Barron's dairy? Yes.

176. Had you been obtaining milk from there for some years? Yes; for nearly four years—up to February 1896, when I left off. A. Cross.  
1 Nov., 1899.

177. What caused you to leave off? For two or three days he did not come round. I made inquiries from other customers, and they told me that there was fever in the house.

178. Was it in consequence of the reported outbreak of fever that you ceased to become a customer? Yes.

179. Have you ever got milk from him since? No.

180. Was the alleged outbreak commonly reported in the district? I heard it from two or three people.

181. *Mr. Anderson.*] Would you have continued taking the milk from Barron but for the alleged outbreak of fever? Yes; I have never had better milk than I had from him.

Caroline Mudge sworn and examined:—

182. *Dr. Sly.*] Do you know Mr. Barron's dairy? Yes.

183. Were you a customer of his? Yes. At the time of the alleged outbreak I had two young children who were fed on the milk from his cows. C. Mudge.  
1 Nov., 1899.

184. What made you leave off getting milk from him? I had heard about the outbreak of fever.

185. How much did you get from him per day? From 3 to 4 pints, and sometimes more.

186. Was it in consequence of the alleged outbreak of fever that you left off taking the milk? Yes. I heard the report of the outbreak before I saw it mentioned in the newspapers.

187. Have you dealt with Mr. Barron since? No.

Clarence Arthur Simms, Secretary to the Board of Health, recalled, and further examined:—

188. *Dr. Sly.*] Amongst the papers exhibited by you yesterday is a report signed by Mr. Pearson, C. A. Simms, Examiner of Accounts at the Treasury? Yes. 1 Nov., 1899.

189. How came he to make the report? By direction of his Under Secretary. Mr. Barron applied to the Department of Justice for compensation, and also to my Department and the Treasury. I think that on the occasion he applied to the Treasury Mr. Kirkpatrick instructed Mr. Pearson to report.

190. *Mr. Brunker.*] Your Department is controlled by the Treasury? Yes.

191. Can that report be accepted, if correct? Yes.

192. *Chairman.*] Who is the report signed by? Mr. A. P. Pearson, Examiner of Accounts. It is addressed to the Under Secretary. In the first place, I do not understand the whole of the report; and, in

C. A. Simms. in the second place, I deny that the Board of Health prohibited Barron from doing certain things. We did not. The report is as follows:—  
1 Nov., 1899.

## REPORT ON THE CASE OF THOS. S. BARRON.

20 October, 1898.

MR. BARRON'S daughter was medically examined by Dr. Gwynne-Hughes, who, on the 16th February, 1896, reported to the Board of Health, as required by the Dairies Supervision Act, that the case was one of typhoid fever.

On the 17th February, 1896, the patient was removed to Coast Hospital, and on examination there by the Medical Superintendent, the case was pronounced to be one of heart disease, without any symptoms of typhoid fever. She died on the 20th February, 1896, three days after admission.

Owing to the report of Dr. Gwynne-Hughes, the Board of Health prohibited Barron, who carried on the occupation of dairyman, from selling milk during the time his daughter remained on the premises. After her removal, and when it became known typhoid fever had been contracted, Barron states his customers would not deal with him; consequently he lost his business, and is a ruined man.

On the 9th September, 1897, Barron sued Dr. Gwynne-Hughes in the District Court, claiming £200 compensation for alleged unskilful, improper, and negligent conduct. The newspaper report shows that a verdict was given for the defendant (Dr. Gwynne-Hughes).

Barron has made repeated applications for assistance. He thinks he has not been properly treated; has not received justice, and cannot obtain redress. He now asks that his fare, as well as that of his wife and family, be allowed to enable him to leave the Colony.

If a sum be granted, it may be thought the Government is remunerating him for the loss he alleges he has suffered, which would be almost equivalent to recognising that either the Board of Health or Dr. Gwynne-Hughes acted erroneously in carrying out the law prescribed by the Dairies Supervision Act.

At present we have only Barron's statements to go on, and should inquiry be made, the case may not be so bad as represented in these papers.

I might add, I do not think any amount should be authorised, unless with the concurrence and upon the recommendation of the Board of Health.  
A. P. PEARSON,  
The Under Secretary. Examiner.

193. *Mr. Bruncker.*] What was the date upon which Mr. Pearson made the report? The report came to us on the 21st October, and two or three days afterwards I returned it with our view as follows:—

Sir,

Office of the Board of Health, Sydney, 24 October, 1898.

In returning the attached papers, I am directed to say that the Chief Medical Officer of the Government would be glad to try and get any information which may be desired—probably through the police—if the exact points are mentioned; but the matter seems fully dealt with on Health Department 97-8,482, and Treasury 97-9,590. Dr. Gwynne-Hughes was not an officer of the Department. Barron had a milk business. The child may or may not actually have had typhoid; but a jury exonerated Dr. Hughes, at all events. Publication of the fact that Barron had typhoid on his premises was only in course of usual report of the proceedings of Waterloo Council at an ordinary meeting, and beyond control of the Board. Lastly, Barron was dealt with exactly as several other milkmen were dealt with during the year, as well as many others both before and since, from whom no similar complaint has been received.

I have, &amp;c.,

C. A. SIMMS,  
Secretary.

The Under Secretary for Finance and Trade.

Examined.—F.K., 27/10/98.

This report from the Board of Health shows that Barron was dealt with in exactly the same manner as other milkmen during the year, as well as others both before and since. Under these circumstances it would not appear to be advisable to create a precedent by allowing any monetary assistance in consequence of alleged losses owing to the operation of the Dairies Supervision Act, and Mr. Barron might be informed that the request contained in his letter of 25th October, 1898, respecting the application for payment of his fare, as well as his family's, out of New South Wales, cannot be complied with.—C.W., 4/11/98. Answer.

Submitted.—F.K., 5/11/98. Approved.—G.H.R., 5/11/98. Mr. Robbards.—F.K., 7/11/98. Done.—G.E.F.R., 8/11/99.

194. *Dr. Sly.*] Is the *precis*, made by yourself, correct? Yes.

195. You say:—

“Dr. Gwynne Hughes reports Mary Sherlock Barron to be ill on a registered dairy; in my opinion, I think she is suffering from typhoid fever.”

196. Were those the exact words of Dr. Hughes? Yes; I used his phraseology.

197. *Mr. Nielsen.*] Is the letter which has been produced by the Council Clerk the one you sent to the North Botany Council? Yes.

198. Yesterday you stated that your letter did not contain the name of Sherlock? So I did. A gross clerical mistake has been made. If I had noticed the mistake the letter would not have gone out in the name in which it did.

199. *Mr. Bruncker.*] Has Dr. Taylor at any time made any representation to the Board with regard to the case? Yes, on request. Mr. Barron, after his daughter's death, came to the Health Office and wrote out a statement of the case, in which he made a complaint of unfair treatment, owing to mistakes of the medical attendant. We referred to Dr. Taylor, and he said that the child had congenital heart disease. Dr. Thompson thereupon asked whether there might not have been an indication of typhoid fever. I forget his reply, but I think he said it might possibly be; but as no *post-mortem* had been held, and the child had been under his care too short a time to enable him to judge from external appearances, he could not say for certain.

200. I suppose that accounts for this paragraph in your letter: “The child may or may not have had typhoid, but the jury exonerated Dr. Hughes, at all events”? Yes. As I said before, it is entirely a matter of medical opinion.



THURSDAY, 16 NOVEMBER, 1899.

Present:—

MR. BRUNKER,	MR. NIELSEN,
MR. J. C. L. FITZPATRICK,	MR. JAMES THOMSON,
MR. ANDERSON.	

J. R. DACEY, Esq., IN THE CHAIR.

Dr. J. D. Sly, solicitor, appeared on behalf of Mr. Barron.

Devereux Gwynne-Hughes, medical practitioner, sworn and examined:—

201. *Dr. Sly.*] Do you remember attending Mr. Barron's female child two or three years ago? Yes, on 16th February, 1896. D. Gwynne-Hughes.  
16 Nov., 1899.
202. Do you remember what opinion you formed as to what she was suffering from on your first visit? Advanced heart-disease and typhoid fever.
203. Are not the symptoms of typhoid fever frequently very difficult to detect in the early stages of the disease? Very difficult sometimes, and especially in view of the form of heart-disease from which the child in question was suffering.
204. Then no matter what amount of skill a practitioner brings to bear on a case of typhoid fever he often has to change his opinion? Sometimes.
205. There are certain symptoms which are common to typhoid and other fevers? Yes. It is extremely difficult sometimes to diagnose typhoid fever, and it is very difficult to differentiate certain forms of heart disease from typhoid fever.
206. Being of opinion that the child was suffering from typhoid fever, you sent a report to the Board of Health? Yes.
207. In that report you state that, in your opinion, the child was suffering from typhoid? Yes.
208. That was written on the 16th February, 1896. On the following day you wrote again stating that she seemed to have typhoid and other symptoms? Yes; but I told Mr. Barron on the first day that the child had advanced heart-disease. He and Mrs. Barron admitted that to the Judge at the trial. No one could possibly mistake the fact that she had advanced heart-disease; but I thought it my duty, in the interests of the general public, and in accordance with the Act, to report the matter to the Board of Health. If I thought the child was suffering from typhoid fever as well as heart-disease it was my duty to report the matter to the Board.
209. I believe you only had one opportunity of seeing the child before you came to the conclusion that she was suffering from typhoid fever;—if you had had an opportunity of seeing her a number of times might you have arrived at a different conclusion? Yes.
210. *Chairman.*] You stated, in one of your letters, "The child died from heart-disease, accelerated by typhoid fever, which was omitted in the certificate of death"? Yes. Dr. Taylor would not certify to the typhoid fever. There was no *post-mortem*, so that Dr. Taylor could not possibly state whether she had typhoid fever or not.
211. Dr. Taylor was asked this question by Dr. Sly: "I believe you reported that the child died from congenital heart-disease and pericarditis, and that she had no symptoms of typhoid fever?" To that question Dr. Taylor answered, "That is correct." I, myself, think she had symptoms of typhoid fever.
212. What I wish to particularly draw your attention to is the omission of any allusion to typhoid in the certificate of death;—it was purposely done? Yes.
213. Judging from his evidence, Dr. Taylor does not think there was any typhoid? This is so.
214. It is a mere difference of opinion? Yes.
215. *Mr. J. C. L. Fitzpatrick.*] Would it be necessary to hold a *post-mortem* to discover whether typhoid did or did not exist? I think so, in a difficult case like that. There are other diseases which are difficult to diagnose. Take for instance cancer in the stomach. On one occasion I diagnosed cancer in the case of a female patient, and other doctors said she had not cancer. It was only proved by a *post-mortem* examination that she had cancer. Many eminent medical men at Home in cases of advanced heart-disease, such as this child was suffering from, cannot at times differentiate it from typhoid fever.
216. Dr. Sly-Aitkin, in his medical work, says: "The disorder with which typhoid fever may be confounded vary at different stages of the disease. Early in the affection it may be mistaken for a simple continued fever, relapsing fever, or anyone of the exanthemata. At a more advanced period it may be confounded with typhus and with typhoid conditions, such as arise from uræmia, pyæmia, general debility, and influenza; also with enteritis, peritonitis, meningitis, and acute pulmonary diseases"? That is so, and it is very often confounded with ulcerative endocarditis. There was no question about the heart-disease. I told Mr. Barron at the time the child was dangerously ill, and that I did not think it would live three weeks at the most.
217. *Mr. Brunker.*] I believe there is a material difference between diagnosing a case of cancer and a case of typhoid? When I referred to cancer I was only pointing out how doctors differ. In my opinion the child had typhoid fever, and Dr. Taylor could not positively swear that she had not typhoid fever without a *post-mortem* examination. I maintain that no one could say she had not typhoid unless there was a *post-mortem* examination.
218. I suppose that immediately after you saw the child you determined that the case was one of typhoid? I thought so most decidedly.
219. And you felt it your duty, in the interests of the public, to notify Dr. Thompson, the President of the Board of Health? Yes. There was a big epidemic of typhoid in the neighbourhood at the time. There were about thirty cases of typhoid from that neighbourhood. Of course I had nothing to do with the closing of the dairy. I told Mr. Barron to seek the advice of the Board. I simply performed my duty. I had no animus whatever against Mr. Barron.
220. *Mr. J. Thomson.*] Would the fact that typhoid was prevalent in the district influence you in arriving at your conclusions? I do not think so.
221. Judging from some of your remarks you do not seem to have been very strongly impressed with the idea that the case was one of typhoid, but erring on the safe side you thought it your duty to report the matter? Yes.

D. Gwynne-  
Hughes.  
16 Nov., 1899.

222. You were not very strongly convinced that it was a case of typhoid fever? No. Of course you require a case like that to be under observation—to be visited (say) every six hours. Of course in the hospital Dr. Taylor would be placed at a greater advantage than I would be. He would have the nurses' reports every six hours.

223. That brings us to this important point: that Dr. Gwynne-Hughes' examination can hardly be regarded as of equal value to that of the examination of Dr. Taylor, who had more time and opportunity of seeing the child and watching its varying symptoms:—I suppose you will admit that? He certainly would be in a better position to judge than I would be.

224. When you formed the opinion that the case was one of typhoid you considered that it was imperative on your part to report the matter to the Board of Health? Yes.

225. That is mandatory under the law? Yes.

226. Do you agree with Dr. Taylor in his evidence to the effect that the child was born with a malformed heart, that she suffered from palpitation and was liable, as all these cases are, to lung complications? Yes.

227. Dr. Taylor was asked the question whether there were any signs of typhoid fever. His answer was, "I could not say she had no symptoms because she was feverish, but she had no symptom indicative of typhoid fever"? When I saw her she had every symptom of typhoid. It would be exceedingly difficult to say she had not.

228. Would that abate between the time you saw her and getting to the hospital? Probably. Dr. Taylor stated that she was in almost a state of collapse when she arrived at the hospital.

229. Dr. Taylor was asked the following question: "You stated in your report 'she had no symptom of typhoid fever'? That would be incorrect, because in every case of typhoid fever there is feverishness, and this child was feverish"? Yes, she was feverish. She had a temperature of 103 to 104 every day I saw her, and that is unusual in heart-disease.

230. You considered that you were perfectly justified in notifying Dr. Thompson, in the public interest, that the child was suffering from typhoid, that being your belief at the time? Yes; that was my belief at the time.

231. It is not unusual, I believe, that cases diagnosed as typhoid turn out to be something else? Yes; in some cases of influenza it is extremely difficult in the early stages to define the disease from typhoid.

232. And it is sometimes necessary to give your opinion as a precaution to parents? Yes.

1899.

(THIRD SESSION.)

—  
 LEGISLATIVE ASSEMBLY.  
 NEW SOUTH WALES.

NEW ROAD AT BURRAWONG OLD STATION, DISTRICT  
 OF MOLONG.  
 (RETURN RESPECTING.)

Printed under No. 1 Report from Printing Committee, 3 August, 1899.

RETURN (*in part*) to an *Order* of the Honorable the Legislative Assembly of New South Wales, dated 20th April, 1899, That there be laid upon the Table of this House,—

“ All papers since the year 1881 in reference to the alteration and construction of the new road that is now being carried out at Burrawong Old Station, in the District of Molong.”

(*Dr. Ross.*)

SCHEDULE.

No.	PAGE.
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2. Copy of Minute—Department of Public Works to Department of Lands, <i>re</i> establishing proposed deviation, 4th June, 1898 .....	3
3. Memorandum—District Engineer, Orange, to Principal Assistant Engineer, Roads, Sydney, inquiring what action is being taken in the matter, 31st January, 1899. Minutes by officers in head office, and Ministerial approval to go on with work before establishment of deviation, 3rd March, 1899 .....	3
4. Letter—John Young, Chairman, Burrawong Grazing Company, to District Engineer, Orange, giving permission for the construction of the deviation through the Company's property, 27th February, 1899 .....	4
5. Telegram—District Engineer, Bathurst, to Principal Assistant Engineer, Roads, Sydney, <i>re</i> deviation in course of construction, 17th April, 1899 .....	4
<i>Contract Papers.</i>	
6. Schedule of Tenders opened 17th March, 1899—Thomas Murphy, £189, lowest; accepted 27th March, 1899. Contract agreement signed by Thos. Murphy, 27th March, 1899 .....	4

No. 1.

The District Engineer, Orange, to The Principal Assistant Engineer.

(98-4,291.)

Roads Office, Orange, 6 May, 1898.

REPORTING on a proposed deviation at Burrawong, on road Cumnock to Bolderogery, No. 1,036 on the Minor Road Schedule for 1897-8, parish of Burrawong, county of Gordon, Electorate of Molong.

I HAVE the honor to report as follows:—

1. I have visited the site of the proposed deviation, and submit herewith a detailed estimate of cost, together with a sketch plan of the locality (marked “A”) and a “Statement of Particulars” and “Schedule of Portions.”

2. Burrawong Hill, which it is the object of the proposed deviation to avoid, is the chief obstruction on this road, and is the cause of much complaint. In addition to its severe ruling gradient of 1 in 7·85, there is a sharp curve at the steepest part, an element of much additional impediment to ascending and of danger to descending traffic. The cost of maintaining the metalling on this severe grade is also excessive, and a satisfactory surface impracticable.

3. The deviation would afford a ruling gradient of 1 in 16·44, be practically straight, and 10 chains shorter between the two termini, “A” and “B” on the plan.

EO--A

3.

[580 copies—Approximate Cost of Printing (labour and material), £36 18s.]

4. To cut down the hill to the same ruling grade as the deviation would, as it is of rock, cost not less than £220; there would still be the curve, and the ruling grade would be 32 chains in length, as against one of 9 chains on the deviation. The length to be abandoned is metalled, but the metalling is much worn and of little value. The formation on the deviation would cost £120, as against £220 on the road. The cost of metalling would be less, because it is 10 chains the shorter; the cost of culverts, &c., would be about the same in either case.

5. The deviation would be on portion of the Burrawong Estate, and the manager, Mr. Reynolds, whom I saw on the ground, is anxious for it on account of their traffic, and offered to consent to it, taking the existing road in exchange without asking any compensation for fence alterations, &c.

6. The cost of the works required to make the deviation trafficable, as given in detail in the statement of particulars, would be £145. The annual vote for the road is £100.

7. The recommendation is that the deviation be made, and that a special grant of £100 be obtained to supplement the vote and meet the cost.

I have, &c.,

A. W. STILWELL,

District Engineer.

Minute and tracing herewith for transmission to Lands,—Mr. W. A. Smith.—Mr. W. J. DOWNNEY, 4/6/98. Special minute sent Lands Department. See copy of 98-4,951 herewith. 7/6/98. Mr. Stilwell to see. Seen.—A.W.S., 13/6/98. Principal Assistant Engineer. File.—W.W., 15/6/98.

Roads Office, Orange, 6 May, 1898.

Deviation at Burrawong Hill Road, Cumnock to Bolderogery, No. 1,036 on Minor Road Schedule, 1898.

*Statement of Particulars.*

(General Instructions, Appendix No. 28.)

To accompany Plan, Report, and Recommendation of District Engineer A. W. Stilwell.

(1.) State the locality of proposed deviation, giving numbers of portions and names of parish and county, electorate, and any other particulars necessary for identification.

(2.) Is the road on schedule? If so, what are its number and name on this year's schedule?

(3.) Is it within a municipality?

(4.) What is the length of the deviation and area of land required?

(5.) What is the length of the road to be superseded, and its area?

(6.) Do you recommend that any part of the superseded road be closed and granted in lieu? If so, give its length and area.

NOTE.—No road can be closed without the approval of the Department of Lands, and in the case of a boundary road all the adjoining owners must give their consent before it can be closed. (See Clause 193 of General Instructions.)

(7.) State the nature of the tenure of land to be resumed or appropriated—whether freehold, conditional purchase (C.P.), conditional lease (C.L.), reserve, Crown land, &c.

(8.) State the general quality of the land in the holding and its approximate value per acre.

(9.) State the nature, trend, and extent of the traffic; and whether local or general, light or heavy.

(10.) How many persons are served by the road?

(11.) What is the approximate area of cultivated land served by the road, and what is the nature of the produce?

(12.) Is such traffic likely to increase in the near future, and on what grounds is your opinion based?

(13.) State fully the advantages of the deviation as compared with the existing reserved road.

(14.) State the nature of work required to make the deviation suitable for present traffic, and give an estimate of cost in detail.

(15.) What expenditure would be required to put the established road in a condition suitable for present traffic?

(16.) Give the gradients and their lengths on the deviation and on the established road.

(17.) What is the value per acre of the land to be resumed?

(1.) At Burrawong Hill, about 1 mile from Cumnock, portion 115, parish of Burrawong, county of Gordon, electorate of Molong.

(2.) Yes; No. 1,036, Cumnock to Bolderogery.

(3.) No.

(4.) 50 chains, 9 acres.

(5.) 60 chains, 9 acres.

(6.) Yes, the whole of it. It is not a boundary road.

(7.) Freehold.

(8.) Fair grazing land, but rocky; say, 30s. an acre.

(9.) Heavy, farming, fruit-growing, and wool traffic to rail, &c., at Molong from a large extent of country westwards.

(10.) This is a scheduled road as a result, presumably, of adequate inquiry and consideration. The present extent of the traffic is certainly sufficient to justify it, and also the alteration and expenditure now proposed.

(11.)

(12.) Will probably increase. More country is being put under cultivation.

(13.) Ruling grade of 1 in 16.44, as against one of 1 in 7.85; the avoidance of a sharp curve, and a shorter road by 10 chains.

(14.) 48 chains clearing at 5s.; 50 chains drain at 6s.; 9,241 yards, formation at 2s.; one-fourth c. culvert at £10; 2 pipe culverts at £5; one causeway at £6—total, £145 4s.

(15.) £263. This would give the same ruling grade as the deviation, but it would be 23 chains longer; there would still be the bad curve and 10 chains longer road.

(16.) Deviation—8 chains, 1 in 45.10; 13 chains, 1 in 27.48; 9 chains, 1 in 16.44; 21 chains, 1 in 24.19. Existing road, not graded, varies every few yards; ruling, 1 in 7.85.

(17.) Say, 30s.

(18.)

- (18.) What is the value of the land severed? (18.) No real severance; same owner on both sides of road. No claim made beyond that of old road for new.
- (19.) Will the property be improved in general value by the deviation? (19.) Yes, by improved access to market, &c.
- (20.) What is the length and value of fencing required? (See Clause 195 of General Instructions.) (20.) No fencing asked for by the landowner.
- (21.) Should fencing be erected by the Department or its value paid to the owner? State reasons for the recommendation. (21.) Neither; no claim made for it.
- (22.) Is the present road fenced? (22.) Yes.
- (23.) Are the portions through which the deviation passes enclosed? If so, give the nature of the fences and their state of preservation, and show their position on the sketch plan. (23.) Yes, top rail and four wires; fairly good.
- (24.) Have the owners offered to give their land, and on what terms? (See Clause 193 of General Instructions.) (24.) Yes, in exchange for the existing road; no further claim.
- (25.) Is obtaining immediate possession of the deviation an important consideration? (25.) Very desirable as early next financial year as funds for it can be provided.
- (26.) Are funds available for resumption and formation? (26.) No; a grant of £100, to supplement the vote, is recommended in covering report.
- (27.) Have you any general remarks to make on the whole question? (27.) None beyond those in the report.

A. W. STILWELL,  
District Engineer.

### No. 2.

#### Minute from The Department of Public Works to The Department of Lands.

Road Cumnock to Bolderogery, Deviation at Burrawong Hill.

4 June, '98.

THE traffic, which is large and heavy, along the scheduled road "Cumnock to Bolderogery" is reported to be considerably hampered by the severe grades on Burrawong Hill. The ruling grade at this place is about 1 in  $7\frac{3}{4}$ , and to reduce in a reasonable degree would entail an unnecessarily large outlay. By the construction of the deviation indicated by red line on tracing, a ruling grade of 1 in  $16\frac{1}{2}$  may be obtained at an expenditure fully warranted by the traffic. This deviation is 10 chains shorter than the existing road, and, owing also to the flatter grades, the cost of maintenance would be considerably reduced.

The owner is anxious for the construction of an improved road, and, it is reported, will make no further claim than to be granted the old road in lieu of that proposed to be taken. It is recommended that the Department of Lands be asked to take into early consideration the desirability of establishing the deviation indicated.

G.W.J.D.

### No. 3.

#### The District Engineer, Orange, to The Principal Assistant Engineer.

Road Cumnock to Bolderogery, Proposed Deviation at Burrawong Hill.

Roads Office, Orange, 31 January, 1899.

MEMORANDUM.—A report recommending this deviation was furnished on the 6th of May last, accompanied by detailed report as to resumption required, section, &c.; also recommending a special grant of £100 to meet the cost.

I would ask to be informed what action has been taken in the matter, and whether there is any probability of the work being done this year?

A. W. STILWELL,  
District Engineer, Orange.

98-4,951 forwarded to Lands, 7/6/98.—F.E.C., 2/1/99. Mr. Mollison.—JNo. P., 3/2/99. Mr. Downey.—J.S.M., 6/2/99. Proposed resumption gazetted, 18/1/99.—G. W. J. DOWNEY, 8/2/99. Mr. Mollison.

As resumption will now be probably completed in from six weeks to two months, Mr. Stilwell's recommendation of a special grant of £100 (Paper 98-4,291) might perhaps be approved, in order that steps may be taken to prepare the contract, but a tender should not be accepted till the road has been actually established, or the owner has given a written permit to enter.—JAS. S. MOLLISON, Assistant Engineer, 8/2/99. Under Secretary for Public Works and Commissioner for Roads.

Submitted for approval.—R.H., Under Secretary for Public Works and Commissioner for Roads, 10/2/99. Approved.—J.H.Y., 10/2/99.

Mr. Stilwell to note. If the (unconditional) permit can be obtained easily and quickly this might be done, otherwise the case might be resubmitted shortly in order that further inquiry may be made at Lands.—JAS. S. MOLLISON, 13/2/99. Mr. Stilwell.

In view of Mr. Young's attached note, and of the document he says he has signed—presumably with Lands Department,—it does not appear necessary to longer delay the work, and I am now about to obtain tenders for it.—A.W.S., 28/2/99. Principal Assistant Engineer, Roads and Bridges.

Submitted for approval to proceed with the work prior to formal establishment. See indirect approval of 10/2/99.—JAS. S. MOLLISON, Assistant Engineer, 2/3/99. Under Secretary for Public Works and Commissioner for Roads.

Submitted for approval.—W. J. HANNA (for Under Secretary and Commissioner for Roads), 3/3/99. Approved.—J.H.Y., 3/3/99. Mr. Hanna.—JNo. P., 3/3/99. Mr. Stilwell to note.—W.J.H., 4/3/99. Noted.—A.W.S., 7/3/99. File.—W.W., 8/3/99. Principal Assistant Engineer, Roads and Bridges.

No. 4.

## No. 4.

John Young, Esq., to The District Engineer, Orange.

Mr. Stilwell,—

Kentville, Johnston-street, Annandale,

Dear Sir,

27 February, 1899.

My son, F. J. T. Young, informed me that by writing to you, and giving the necessary permission, you would proceed with making the new road from Cumnock down the hill, past old Burrawong, on the Peak Hill Road.

The new road to go through a portion of ground belonging to the Burrawong Grazing Company (Limited).

We have already given permission and signed a document which was sent to the Government ———; but I again, on behalf of our Company, give permission, and request that the formation of new road be proceeded with.

I am, &amp;c.,

JOHN YOUNG,

Chairman of the Burrawong Grazing Co.

## No. 5.

Telegram from The District Engineer, Bathurst, to The Principal Assistant Engineer.

Bathurst, 17 April, 1899.

DEPARTMENT is constructing a deviation at Burrawong Hill, Road Cumnock to Bolderogery, to avoid impracticable grade and turn on existing road—the causes of much complaint. It is not at any one's request. Know nothing of William Ross having been prosecuted in '82 for forcible opening of this line, and nothing of any previous road in this location. The papers, plan, and sections in Head Office will show whole history of the case so far as I am acquainted with it.

A. W. STILWELL,  
District Engineer,  
Bathurst.

## No. 6.

## Schedule of Tenders.

## MINOR ROADS—SCHEDULE A 3.

Department of Public Works, Roads Branch, Orange District.

SCHEDULE of Tenders opened at 12 o'clock, this 17th day of March, 1899, at the Court-house, Orange, by W. C. Adams, Departmental Officer, in the presence of H. J. Leary, C.P.S.

Work, vote, or grant—Cumnock to Bolderogery; Contract No. 54/98-9; Estimated cost, £190; Tender, £189; Vote of £200; Grant, £100 for 1898-9; Schedule A 3, Item No. 1,045.

Locality. Description of Work Comprised in Contract.	No.	Names of Tenderers.	Amount of Tenders.
On Burrawong Hill ... ..	1	Thomas Murphy ... ..	£ s. d. 189 0 0
48 chains—Clearing.	2	John Quinn ... ..	199 19 0
48 chains—Drains.	3	Thos. Haddock ... ..	217 8 0
1,061 yards—Formation.			
1 T Culvert.			
4 Pipe Culverts.			
1 Stone Causeway.			

	£	s.	d.
Vote ... ..	200	0	0
Authorised Excess ... ..	100	0	0
	300	0	0
Expenditure ... ..	123	6	0
Balance ... ..	£176	14	0

Liabilities—Nil.—F.H., 4/4.

We certify the above to be correct, and that we have initialled all the tenders, three in number.

HENRY J. LEARY, C.P.S.

W. C. ADAMS.

Date of Notification of Acceptance of Tender, 27th March, 1899.

Deposit received, 27th March, 1899; Deposit banked, 27th March, 1899; Amount of deposit, £9 9s.

I have accepted the tender of Thomas Murphy, for the sum of £189.

A. W. STILWELL, 27/3/99,

Officer-in-Charge.

Not d. for deposit, 20/3/99. Deposit paid, 27/3/99.—W.R.W. There is a special grant of £100 for this work, also a balance of the vote for the road of £76 14s., or, in all, £176 14s., leaving a deficit of £12 6s. Can this additional sum be provided, or shall I reduce the work?—A.W.S., 21/3/99. Principal Assistant Engineer, Roads and Bridges. Submitted for approval to an additional sum of £12 6s.—T.R.S., 4/4/99. Approved.—R.H., Under Secretary Public Works and Commissioner for Roads, 6/4/99. Accountant. Noted.—Mr. H. to note authority for excess and pass on.—J.C., 6/4/99. Noted.—R.H., 6/4. Funds available.—J.C., 6/4/99. Account Branch Notations.—Deposit noted, 3,733. Tenders examined, O.C., 4/4; W.R.W., 7/4/99; T.R.S. Noted.—J.S.O., 7/4/99. Funds available.—J.C. Mr. Norrie as to queries, then Mr. Stilwell to note as to funds.—T.R.S., 7/4/99. Checked and found correct.—HAROLD F. NORRIE, Clerk-in-charge of Bonds and Contracts, 10/4/99. Now to Mr. Stilwell re funds. Noted.—A.W.S., 19/4/99. The Accountant. Department

Department of Public Works, New South Wales.  
Lump Sum Tender Form. Contract No. 54/98-9.  
Road Cumnock to Balderodgery.

I, the undersigned, do hereby tender to provide the material and perform the various works required in and about the full and proper construction, erection, and completion of contract No. 54/98-9, on road Cumnock to Balderodgery, agreeably to the plan, specification, schedule to specification, special conditions, and general conditions, which have been inspected by me, for the lump sum of £199 19s, and to complete the same within the time stated in the said general conditions; and I do hereby agree that any additions to or deductions from the said works shall be paid or allowed for, as the case may be, at and after the rates or prices mentioned in the schedule of prices endorsed hereon, or if not in schedule at a price to be agreed upon at the time, and added to or deducted from the above lump sum, as the case may be; and I hereby undertake that I will, within fourteen days from the date of notification of the acceptance of the said tender, execute and deliver to the Minister for Public Works a valid legal contract with Her Majesty the Queen, embodying the terms and conditions above mentioned.

Dated this 16th day of March, A.D. 1899.

JOHN QUINN,  
Molong.

This is the tender, marked " \_\_\_\_\_ ," referred to in \_\_\_\_\_  
Her Majesty the Queen, dated the \_\_\_\_\_ day of \_\_\_\_\_  
Witness— \_\_\_\_\_  
annexed agreement with  
A.D. 189

NOTICE TO TENDERERS.

When two or more persons send in a joint tender, the name of each must be set forth therein; and all names must be written in full. Tenderer's address to be clearly stated.

A separate tender must be sent in for each contract under separate cover, with number of contract endorsed thereon.

As soon as the tenders shall have been opened, and the bulk sums of each ascertained, the lowest eligible tenderer shall be called upon to pay a minimum deposit of £2 if the tender be £40 or under, or a sum representing 5 per cent. on the pounds in tenders over £40 and under £200, before his tender can be recommended. On all tenders of £200 and over, the security required will be that provided for in clause 29 of the general conditions, viz., £5 for every £100 or part of £100. In the event of tenderer refusing or neglecting within seven days from date of opening tenders to pay this deposit he will be liable to disqualification from further tendering. If the next tenderer is considered suitable, the work may be offered to him, and so on as long as the local officer considers the tenders to be of such a nature as he would be justified in recommending.

In the event of a tenderer refusing to take up his contract, or the contract being cancelled, his deposit will be forfeited to the Government of New South Wales, and will be paid to the credit of the Consolidated Revenue. The deposit will be returned when the final certificate has been forwarded for payment.

No tender will be considered which shall have been received after the advertised time for the receipt of tenders, unless there are valid reasons which render it equitable that it should be entertained.

This is the Schedule of Prices hereinbefore referred to:—

Schedule Number.	Nature of Work.	Schedule Rates for Additions or Deductions.
		£ s. d.
1	Clearing road wide ... .. per lineal chain	0 5 0
2	Forming, including cutting and filling ... .. per lineal yard	0 2 2 $\frac{3}{4}$
3	Side drains ... .. per lineal chain	0 8 0
4	Metal gauge ... .. per cubic yard	.....
5	Metal gauge ... .. per cubic yard	.....
6	Gravel gauge ... .. per cubic yard	.....
7	Gravel, screened gauge ... .. per cubic yard	.....
8	Blinding ... .. per lineal yard	.....
9	Rolling, complete ... .. per lineal chain	.....
10	1st class culverts ... .. each	.....
11	2nd Do do ... .. each	.....
12	3rd Do do ... .. each	.....
13	4th Do do ... .. each	.....
14	5th Do do ... .. each	12 0 0
15	Box culverts ... .. each	.....
16	Pipe culverts, including stone heads ... .. each	6 0 0
17	Do do timber heads ... .. each	.....
18	1st class causeways ... .. each	2 15 0
19	2nd Do do ... .. each	.....
20	3rd Do do ... .. each	.....
21	Ordinance fencing, type A ... .. per lineal foot	.....
22	Do do type B ... .. per lineal foot	.....
23	Split fencing, type A ... .. per rod	.....
24	Do do type B ... .. per rod	.....
25	Providing for traffic ... .. bulk	.....

This is the schedule of prices referred to in \_\_\_\_\_  
Queen, dated the \_\_\_\_\_ day of \_\_\_\_\_  
Witness— \_\_\_\_\_  
annexed agreement with Her Majesty the  
A.D. 189

Telegram from Thos. Haddock, Wellington, to C.P.S., Orange.

Lump sum for contract 54-98-9, £217 8s. Tender form following.

THOS. HADDOCK.

Department

Department of Public Works.  
Lump Sum Tender Form. Contract No. 54/98-9.  
Road Cumnock to Balderogery.

I, the undersigned, do hereby tender to provide the material and perform the various works required in and about the full and proper construction, erection, and completion of contract No. 54/98-9, on road Cumnock to Balderogery, agreeably to the plan, specification, schedule to specification, special conditions, and general conditions, which have been inspected by me, for the lump sum of £217 8s., and to complete the same within the time stated in the said general conditions; and I do hereby agree that any additions to or deductions from the said works shall be paid or allowed for, as the case may be, at and after the rates or prices mentioned in the schedule of prices endorsed hereon, or if not in schedule, at a price to be agreed upon at the time, and added to or deducted from the above lump sum, as the case may be; and I hereby undertake that I will, within fourteen days from the date of notification of the acceptance of the said tender, execute and deliver to the Minister for Public Works a valid legal contract with Her Majesty the Queen, embodying the terms and conditions above mentioned.

Dated this 16th day of March, A.D. 189 .

THOMAS HADDOCK,  
Contractor, Wellington.

This is the tender, marked “ \_\_\_\_\_,” referred to in \_\_\_\_\_ annexed agreement with Her Majesty the Queen, dated the \_\_\_\_\_ day of \_\_\_\_\_ A.D. 189 .  
Witness—

NOTICE TO TENDERERS.

When two or more persons send in a joint tender, the name of each must be set forth therein; and all names must be written in full. Tenderer's address to be clearly stated.

A separate tender must be sent in for each contract, under separate cover, with number of contract endorsed thereon.

As soon as the tenders shall have been opened, and the bulk sums of each ascertained, the lowest eligible tenderer shall be called upon to pay a minimum deposit of £2 if the tender be £40 or under, or a sum representing 5 per cent. on the pounds in tenders over £40 and under £200, before his tender can be recommended. On all tenders of £200 and over, the security required will be that provided for in clause 29 of the general conditions, viz., £5 for every hundred or part of £100. In the event of tenderer refusing or neglecting within seven days from the date of opening tenders to pay this deposit he will be liable to disqualification from further tendering. If the next tenderer is considered suitable, the work may be offered to him, and so on as long as the local officer considers the tenders to be of such a nature as he would be justified in recommending.

In the event of a tenderer refusing to take up his contract, or the contract being cancelled, his deposit will be forfeited to the Government of New South Wales, and will be paid to the credit of the Consolidated Revenue. The deposit will be returned when the final certificate has been forwarded for payment.

No tender will be considered which shall have been received after the advertised time for the receipt of tenders, unless there are valid reasons which render it equitable that it should be entertained.

This is the Schedule of Prices hereinbefore referred to:—

Schedule Number.	Nature of Work.	Schedule Rates for Additions or Deductions.
1	Clearing Road wide ... .. per lineal chain	£ s. d. 0 8 0
2	Forming, including cutting and filling ... .. per lineal yard	0 1 10½
3	Side Drains ... .. per lineal chain	0 8 0
4	Metal gauge ... .. per cubic yard	.....
5	Metal gauge ... .. per cubic yard	.....
6	Gravel gauge ... .. per cubic yard	.....
7	Gravel, screened gauge ... .. per cubic yard	.....
8	Blinding ... .. per lineal yard	.....
9	Rolling complete ... .. per lineal chain	.....
10	1st class culverts ... .. each	.....
11	2nd Do do ... .. each	.....
12	3rd Do do ... .. each	.....
13	4th Do do ... .. each	.....
14	5th Do do ... .. each	25 0 0
15	Box culverts ... .. each	.....
16	Pipe culverts, including stone heads ... .. each	6 0 0
17	Do do timber heads ... .. each	.....
18	1st class causeways ... .. each	10 0 0
19	2nd Do do ... .. each	.....
20	3rd Do do ... .. each	.....
21	Ordnance fencing, type A ... .. per lineal foot	.....
22	Do do type B ... .. per lineal foot	.....
23	Split fencing, type A ... .. per rod	.....
24	Do type B ... .. per rod	.....
25	Providing for traffic ... .. bulk	.....

This is the schedule of prices referred to in \_\_\_\_\_ annexed agreement with Her Majesty the Queen, dated the \_\_\_\_\_ day of \_\_\_\_\_ A.D. 189 .  
Witness—

AGREEMENT



AGREEMENT made this twenty-seventh day of March, in the year of our Lord one thousand eight hundred and ninety-nine, between Thomas Murphy, of Orange, in the Colony of New South Wales, Contractor (hereinafter styled or referred to as "The Contractor"), of the one part, and Her Most Gracious Majesty Queen Victoria, of the other part. Whereas the Minister for Public Works in and for the said Colony (hereinafter called the said Minister) recently called for tenders for the completion of Contract No. 54/98-9, on Road Cumnock to Balderogery, in the said Colony, according to plans, specification, schedule to specification, and general conditions which are hereunto annexed and marked respectively "A, B, C, D, E, F;" and whereas the Contractor made the tender hereunto annexed marked "G," to provide the material and perform the various works required in and about the full and proper construction, erection, and completion of the said works agreeably to the said plan, specification, schedule to specification, and general conditions; and at the sum in the said tender mentioned and within the time set out in the said general conditions; and whereas the said tender was accepted by the said Minister, and such acceptance duly notified to the Contractor on the twenty-seventh day of March, one thousand eight hundred and ninety-nine (a copy whereof is hereunto annexed and marked "H"); and whereas the Contractor has deposited the sum of nine pounds nine shillings in lawful British money with the said Minister, to be held by him as such Minister or the Minister for Public Works for the time being in and for the said Colony as security for the due performance of this contract and all other matters and things herein contained and which on the part of the Contractor are to be done and performed: Now this agreement witnesseth that in consideration of the premises the Contractor hereby agrees to perform the various works required in and about the full and proper completion of the said works in accordance in all things with the said several annexures hereto, and at the sum in the said tender mentioned, and within the time set out in the said general conditions; it being also hereby declared that any additions to or deductions from the said works mentioned, or set out in the said specification, or schedule to specification, or shown in the said plan, are to be paid or allowed for, as the case may be, at and according to the rates or prices in the schedule of prices endorsed on the said tender, or if not in the schedule at a price to be agreed upon at the time, and added to or deducted from the bulk sum in the tender, as the case may be.

And it is hereby further declared and agreed between and by the said parties hereto, that the said several annexures hereto, all being marked as aforesaid, shall be read as incorporated in and forming part and parcel of these presents, in like manner as if the same had been herein written and set forth at length, and that the said several annexures and these presents shall together be taken to be the contract between the said parties in respect of the said works.

In witness whereof the said parties to these presents have hereunto set their hands the day and year first before written.

Signed by the said Thomas Murphy, )  
in the presence of,— )  
W. C. ADAMS. )

THOMAS MURPHY.

D.

Department of Public Works.

SPECIFICATION.

Cumnock to Balderogery Road, Orange District, No. 54/98-9 Contract.

This Contract comprises the following works:—On the Deviation on Burrawong Hill:—

- 48 chains of road-clearing.
- 48 chains of drains.
- 1,061 lineal yards of road formation.
- 1 timber culvert.
- 4 stoneware pipe culverts.
- 1 stone causeway.

The clearing to be the full width between the surveyed road lines, and grubbed out 12 inches below the natural surface.

The drains to be along the higher side of the road, as directed, in alignment with and 4 feet in the clear from the side line, 1½ feet deep and 1 foot wide at bottom.

The formation to be along the pegged central line in cuttings and embankments to the levels and gradients shown on the plan "A" attached, 24 feet wide and with a convexity of 9 inches.

The timber culvert to be of the 5th Class, of 4 feet clear span and 20 feet clear roadway, and in accordance with the plans "B" attached. Timber to be of white or yellow box or ironbark.

The pipe culverts to be 20 feet in length, one of 24-inch and the remaining three of 12-inch pipes, to be supplied to the contractor at Molong railway station, the ends to be retained with neatly hand-packed dry rubble walling.

The causeway to be 30 feet x 18 feet, and in full accordance with the plans "C" attached, excepting that the whole of the timber work is to be omitted.

Clauses 6 to 15, 18 to 32, 34, 36 and 37, 39 and 40, 42 to 46, and 48 to 64 inclusive in the Schedule to Specification attached, do not apply to this Contract.

The General Conditions also attached apply to this Contract.

This is the Specification marked "D," referred to in my annexed agreement with Her Majesty the Queen, dated the twenty-seventh day of March, A.D. 1899.

THOMAS MURPHY.

Witness—W. C. ADAMS.

E.

Contract No. 54/98-9.

SCHEDULE TO SPECIFICATION.

Clause 1.—Contractor to determine Nature of Ground.

The nature of ground shown on plan or referred to in Specification is not guaranteed. The Contractor has to determine this for himself in all cuttings and excavations for drains, formations, or foundations—and in the case of draining and forming shall give one average price per lineal yard irrespective of nature of material excavated—and for foundations at per cubic yard, if not included in the bulk price for the culvert, causeway, or other work specified. Clause

### Clause 2.—Clearing.

- (a) The width of clearing specified to be taken within surveyed limits of road or an equal distance on each side of the centre line, as pegged by the Superintending Officer.
- (b) Unless otherwise specified, grubbing shall include the extraction of all trees, stumps, scrub, roots, rocks, or boulders, within whole width of clearing, and to a specified depth below the natural surface, the holes so made to be left open for inspection by the Superintending Officer, after which they shall be filled in with approved material well rammed, or, if specified, heaped 6 inches higher than the surrounding surface so as to allow for settlement.
- (c) Any trees or large boughs that overhang the clearing, or whose fall would cause obstruction in the road, are to be cut down and burnt, unless otherwise specified, as well as all the extracted trees, brushwood, stumps, or roots.
- (d) Contractor to be responsible for all damage by fire to fences, grass, cultivation, or buildings. Any fences injured during the execution of the work to be immediately repaired at the Contractor's cost.
- (e) Where clearing includes part grubbing and part tree-felling stump high, the timber so cut down and grubbed shall be consumed by fire, unless otherwise specified.
- (f) During the clearing of the road the greatest care must be taken not to disturb any bench mark, survey, or level pegs.
- (g) This class of work to be tendered for at per lineal chain.

### Clause 3.—Draining.

- (a) Drains to be cut where directed by the Superintending Officer, to the average depth, and width at bottom as specified, with side slopes of 1 to 1, unless otherwise stated, and at such gradients as will ensure the free flow of water.
- (b) The material excavated from drain to be evenly banked up on lower side, three (3) feet clear from edge of drain, or, if so specified, to be distributed and spread as may be directed within the limits of the Contract.
- (c) Drains to discharge freely to culverts or causeways.
- (d) Tenders to quote rate per lineal chain.

### Clause 4.—Formation.

- (a) Roadway to be formed to the width specified (such width being measured from water-table to water-table in ordinary formation and through cuttings, and from water-table to edge of scarp-bank in side cuttings, and between top edges of banks in embankments), on lines pegged out by the Superintending Officer, and to be cut to the inclination directed by him or shown on section, the gradients being properly boned through, and due allowance made for shrinkage of banks as the nature of the material may require, at the discretion of the Engineer.
- (b) The formation to be in the solid, or made up with approved hard material; to be uniform in cross-section, having a convexity specified, and where embanked on a siding, the scarp to be left slightly high to allow for settlement as may be determined by the Superintending Officer.
- (c) All trees, stumps, rocks, roots, or other obstructions met with are to be removed to a depth of at least 15 in. below the finished surface; and all holes, ruts, hollows, or depressions to be filled with approved material.
- (d) Wherever the formation is not altogether in the solid, it must be satisfactorily consolidated before any metal or gravel is spread, fresh material being supplied to make up convexity and formation level where required. Surplus material excavated in forming the road shall be used to widen embankments, or shall be deposited and evenly spread at such places and levels as the Superintending Officer may direct, within the limits specified.
- (e) Extra material for embankment to be obtained as may be directed within specified limits, but no borrow-pits will be allowed within the limits of the road without the written permission of the Superintending Officer. In such cases the Contractor shall either ease or slope down the banks to a grade of 1 in 4, or securely fence off (as specified in clause 52) any dangerous place as may be directed, without extra payment.
- (f) Wherever it is practicable and included in the tendered price for Formation, mitre drains 18 in. wide shall be cut to relieve water-tables, at such intervals and angles as shall be directed, a solid block being left, and the tabling recommenced 2 ft. below each mitre drain.
- (g) Any ballast or other material necessary to complete the above portion of the work, as specified, to be included in and form part of the tendered price for formation.
- (h) The banks in cuttings to have a slope of 1 to 1 in earth,  $\frac{1}{2}$  to 1 in hard shale, and may be vertical in well-bedded rock, the latter in each case being determined by the Officer-in-charge. In cuttings where the strata consist of well-bedded rock underlying earth, the face of rock shall be left vertical up to the junction of the rock and earth, the latter being then stripped back for a distance of 2 ft., and battered thence 1 to 1 to the surface. Cuttings shall be carried round all bends in even regular curves, cut clean and sharp into the tabling, that there may be no impediment to the flow of water.
- (i) The slopes of embankment nowhere shall have a less batter than  $1\frac{1}{2}$  to 1, and shall be benched at the toe where the Superintending Officer may direct. In every case where the natural cross-section of the ground is too steep to allow of this batter, a retaining wall, 18 in. thick on top, of large stones, must be built to the approval of the Superintending Officer; such wall to be built carefully to a batter on face of  $\frac{1}{2}$  to 1, the back being vertical, and shall have no stone less than  $1\frac{1}{2}$  cubic feet in size, with headers not more than 5 ft. apart; a proper footing to be cut out of the solid for foundation, which shall be at least 1 ft. deep the full width of wall, and having an inward inclination.
- (j) All stones that may lie on or within 4 in. of the surface of road after completion, to be broken to a 3-in. gauge and blined, and any irregularities in settlement made up therewith.
- (k) Any rock excavated which may be suitable for metalling or rubble backing, can be taken by Contractor for use on any part of this Contract, providing an equivalent quantity of approved material for embankments be supplied by Contractor at his own cost.
- (l) The greatest care must be taken not to disturb any survey or level pegs. None of these pegs are to be removed under any circumstances until approved by the Superintending Officer, and all such pegs as he may require are to be left standing with the turf round them until the completion of the works or he receives instructions for their removal. No bench mark to be disturbed on any account. Any disregard of this sub-clause will be treated as evidence of intention to defraud.
- (m) Formation to be tendered for at per lineal yard, irrespective of nature or quantity of material.

### Clause 5.—Soakage Drains.

Where springs occur in the formation, or the subsoil is not sufficiently firm for roadway, the springs shall be tapped by means of soakage drains led to side drains or lower ground, with such fall as may be directed, to be of the depth specified, 1 ft. wide, filled with 6-in. ballast, 12 in. deep, with a covering of 3-in. metal or clean river gravel, carried up to road surface. Surplus earth to be distributed as may be directed. Soakage drains complete to be paid for at per lineal yard.

### Clause 6.—Bed for Metal or Gravel.

The central portion of formation to be excavated to the width and depth specified for receipt of the metal or gravel. The material from excavation to be used for embankments, or removed and spread where specified, or otherwise deposited clear of road as directed. At intervals of at least a chain, on either side of roadway, small mitre drains, 1 ft. wide, shall be cut to allow soakage water to escape; side of drains to be sloped 2 to 1, and cut in direction of natural flow of water. Cost to be included in tendered price for formation.

### Clause 7.—Metal.

Metal to be of the best description of stone procurable within the specified radius of the work, or it shall be the best obtainable in the specified locality, or it shall be of the class or quality specified.

Stone to be approved by the Superintending Officer, to whom a sample is to be submitted before any quarrying is done. To be broken with clean, sharp, and cuboidal fracture, quite free from spawls, quarry face, dirt, chips, &c., and stacked on even ground by the side of the road for measurement, unless otherwise specified. If directed the metal to be turned over by a fork having tines  $1\frac{1}{2}$  in. apart. The heaps shall be opened out for inspection as directed.

### Clause 8.—Gravel.

To be of the best description of ridge, quarry, or creek gravel specified, or procurable within the specified distance of the work. To be stacked on even ground by the side of the road for measurement, unless otherwise specified. The heaps to be opened out for inspection as directed.

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#### Clause 9.—Screening.

If specified, the gravel shall be screened in the following manner :—All the material shall be thrown with a shovel against the upper surface of a rectangular screen, 7 ft. long, set at a batter of  $\frac{1}{2}$  to 1, having perpendicular bars  $\frac{3}{8}$  in. diameter set  $\frac{1}{4}$  in. apart. That which passes through the screen is not to be used as gravel. Of the residue, all stones over  $2\frac{1}{2}$  in. gauge to be broken to that gauge, and the whole stacked for measurement.

#### Clause 10.—Maintenance Metal or Gravel.

In the case of maintenance metal or gravel, the heaps for measurement shall be of such size as may be directed by the Superintending Officer, and after measurement shall be distributed as specified. When so stacked or distributed the heaps shall be left clear of water-tables, and in such positions as not to interfere with the safe passage of traffic.

#### Clause 11.—Gauge of Metal or Gravel.

The metal or gravel shall be strictly of the gauge specified, so that every stone shall pass every way through a ring of that gauge.

#### Clause 12.—Spreading Metal or Gravel.

(a) When the whole or any well defined length of formation is ready to receive metal or gravel, it is, after measurement, and on receipt of instructions from the Superintending Officer, to be evenly spread to the width and depth specified ; but it shall be competent for the Superintending Officer to remeasure such metal or gravel on the road, when spread, should he consider it necessary.

(b) Until so spread and examined, no more metal or gravel shall be stacked within such distance of the measured metal or gravel as shall be directed.

(c) When the spreading of maintenance metal or gravel is specified, the surface of old metal or gravel to be covered, shall, if so specified, first be broken up or scarified with a pick. In all cases the maintenance material, or such proportion of the total quantity as may be specified, shall be carted out and spread on the road to such lengths, depths, and widths, and in such places as may be directed, first removing all dirt, mud, or earth from the holes, hollows, or ruts to be covered with metal or gravel.

(d) Cost of spreading metal or gravel to be included in the tendered price of same, unless otherwise specified.

#### Clause 13.—Boxing in Metal or Gravel.

After metal or gravel has been spread, it shall be retained or boxed up at the sides by filling with approved material to the surface of metalling or gravelling, and sloped uniformly to the water-table or edge of embankment.

Cost to be included in tendered price for metal.

#### Clause 14.—Blinding.

(a) When the material has been properly spread, and after inspection by the Superintending Officer, the metal or gravel shall receive an even coat of blinding of the width and at the rate per cubic yard to lineal yard specified. Blinding to consist of decomposed granite, clean ridge gravel, or other approved gritty material, the best procurable within the distance specified.

(b) Tenderers to quote a rate per lineal yard.

#### Clause 15.—Rolling.

(a) When the earthwork in formation has been completed, it shall, if so specified, be rolled longitudinally with a roller 3 ft. to 4 ft. 6 in. in width, and weighing  $\frac{1}{2}$  to 1 ton for every foot in width. The rolling to be commenced at the sides, and finished in the centre; the roller to be drawn over the same ground at least twice, or oftener if so specified, all irregularities in surface being attended to during the operation.

(b) Upon the completion of the spreading of metal or gravel, and blinding, the road shall be rolled again as above specified.

(c) Rolling completed, as specified, to be tendered for at per chain.

#### Clause 16.—Timber.

(a) Timber employed to be of the kind specified ; all to be of the best description, sound, straight, free from wanes, shakes, gum veins, cores, or other defects, and to be of full dimensions specified. Hewn and sawn timber to have clean, sharp arrises.

(b) Round timber, unless otherwise specified, to have bark peeled off, and the diameter given to be its smallest dimension, exclusive of bark.

(c) Hewn timber to be square, smooth, and free from axe marks.

(d) Sawn timber to be absolutely free from heart.

(e) Slabs, unless otherwise specified, to be split, lined, and adzed square on edges, and free from heart.

(f) Posts and rails for split fencing to be sound, straight, and cleanly split, free from large knots, splinters, and other defects.

(g) Unless otherwise specified, piles, sleepers, sills, capsills, girders, joists, wing-pieces, and end posts of fencing to be of round timber.

(h) Planking to be sawn timber, unless otherwise specified. Hand-rails, comprising rails, hand-rail posts, and struts on culverts and ordnance fencing, to be sawn and smoothly planed where exposed to view. Kerbs to be sawn.

(i) Sheathing to be of slabs, unless otherwise specified.

(j) Ballast pieces to be hewn.

(k) Treenails to be of oak, ironbark, or blue gum, cut from sound old timber, approved by the Superintending Officer, and of hexagonal section, 1 in. across sides, unless otherwise stated, driven into holes bored with 1 in. auger.

(l) All timber under or in contact with ground to be charred.

(m) Where the Contract is for the supply of timber only, it shall be stacked where, and in such a manner, as may be directed. All labour required for turning over timber for inspection and branding shall be supplied by the Contractor.

#### Clause 17.—Excavations for Foundations.

(a) All excavations for foundations and trenches for culverts, pipe culverts, and causeways, shall, unless otherwise specified, be included in the tendered price for such culvert or causeway.

(b) The Contractor to excavate the formation to depths shown, or to such greater or lesser depths as will ensure sound, permanent, and level foundations for footings at such levels as may be determined by the Engineer. In the case of concrete, masonry, or brick footings, benchings will be allowed or not, at the discretion of the Engineer, who will examine and pass the foundation before the footings are laid. Contractor to keep the trenches clear from water until such time as the Engineer may approve ; after trenches have been examined and approved, the foundation shall be laid, and walls carried up, the trenches to be then filled in with approved material, well punned in layers.

(c) Prices to be given per cubic yard for rock excavation and for excavation in other than rock ; the price for excavation to include all cost of removal of surplus material to embankments, and placing same in position, refilling trenches, unwatering, or any other means found necessary to secure a solid foundation. The depth of foundation shown on plan shall be taken as the contract depth, all deviations from this depth will be added to or deducted from the Contract at Schedule rates, or, in the absence of Schedule rates, at a price to be agreed upon in writing. Any rock excavated which may be suitable for ballasting or rubble backing, can be taken by Contractor for use on this contract, providing an equivalent quantity of approved material for embankments be supplied by Contractor at his own cost.

#### Clause 18.—First-class Timber Culverts.

(a) Culvert to be built square to stream unless otherwise shown or specified, and to consist of one span of the length specified, measured from centre to centre of abutments along the line of traffic.

(b) The roadway to be of the width specified or shown on plan in the clear between kerb logs measured at right angles to the centre line of culvert.

(c) Piles in all cases shall be in one length, not less than 12 in. diameter at small end, and shall square 12 in. x 12 in. at head, or be at least 18 in. diameter, and to be adzed to a flat bearing of not less than 5 in. to receive sheathing.

(d) Tenons 8 in. x 4 in. x 5 in. deep to be cut neatly on pile heads; and in the case of piles let into sills, similar tenons to be cut on feet of piles.

(e) Culvert to be built in accordance with the dimensions shown on lithographic drawing.

#### Clause 19.—Driven Piles. No. 1 Type.

(a) Piles to be driven to the depth shown in drawing, to be pointed, and to have a wrought-iron ring 2 in. x 1 in., fitted on their heads, to prevent splitting in driving. Piles to be charred from the point to 1 ft. above ground level, and to be pitched sufficiently long in order to ensure a perfectly sound head being left after the pile is driven to its full depth.

(b) If specified, piles shall be shod with wrought-iron pile shoes of approved pattern, each 16 lb. weight, secured with eight  $\frac{1}{2}$  in. spikes,  $3\frac{1}{2}$  in. long.

#### Clause 20.—Piles on Sunken Sills. No. 2 Type.

(a) Sills to be 15 in. diameter, laid on an approved foundation, excavation for which shall be included in the tendered price of the culvert, at the depth shown on drawing, firmly bedded, and mortised accurately for tenons on foot of piles.

(b) The trench to be carefully filled in after piles have been placed and treenailed, with approved material well rammed in layers, up to the natural level of the ground surface.

#### Clause 21.—Piles in Rock. No. 3 Type.

(a) The ground at site of piles specified to be let into rock, to be excavated to the depths shown on plan, which shall be included in the tendered price of culvert, or such greater or lesser depths as will ensure holes being in sound solid rock. After the hard bed of rock has been laid bare and freed from water, round holes to receive piles to be excavated in solid rock at position shown on drawing. The sides and bottom of holes to be carefully rough-tooled to exact lines, vertical and horizontal respectively, the feet of piles to be then stepped into their proper places, the whole to be driven tightly with a heavy beetle or ram, the spaces between timber and rock to be run in with grout, composed of 1 of cement and 2 of clean sharp sand.

(b) After the piles have been secured, the trenches to be filled in with approved material, well rammed in 12 in. layers.

#### Clause 22.—Piles on Sills and Sleepers. No. 4 Type.

(a) The trench for culvert, which shall be included in the tendered price for culvert, shall be excavated to the depth indicated by the Superintending Officer, with a fall towards the outlet.

(b) Sleepers to be 12 in. diameter, sunk as shown on drawing, and to be firmly bedded with approved material well rammed about them. The upper side to be adzed down to a depth of 4 in. in the centre, and decreasing towards the abutments; and the whole bottom of culvert shaped accordingly.

(c) Two sills 15 in. diameter to be scribed and notched at ends of sleepers as shown, with flat bearing, 1 in. being taken out of each, and secured to sleepers with jagged driving bolts 1 in. diameter and 24 in. long.

(d) Sills to be mortised to receive tenons on piles, the latter being secured to sills by treenails.

#### Clause 23.—Capsills.

(a) Capsills 15 in. diameter to be flattened 10 in. wide over piles, mortised accurately to receive tenons and bear truly on pile heads, and to be secured with treenails 1 in. diameter through capsill and tenon on piles.

(b) To be flattened 8 in. wide under girders to a true surface.

#### Clause 24.—Wing-pieces.

Wing-pieces, 15 in. diameter, and sloped as shown, to be notched over ends of capsills, and secured thereto with  $\frac{7}{8}$ -in. bolts, the foot of wing-pieces being sunk at least 6 ft. into solid ground, or let into rock as shown on drawing. Wing-pieces to be adzed to a flat bearing of not less than 5 in. to receive sheathing.

#### Clause 25.—Girders.

All girders to be round, of the diameter shown, and adzed off to a true level bearing, 5 in. wide, to receive floor plank; to be seated firmly on capsills, and secured thereto with  $\frac{3}{4}$ -in. bolts as shown.

#### Clause 26.—Sheathing.

The landward side of abutments to be sheathed with slabs, unless otherwise specified, not less than 4 in. thick, from at least 1 ft. below natural surface, except where the surface is bare rock, to underside of deck-planking. Girders to be notched  $1\frac{1}{2}$  in. to admit of slabs being inserted between underside of planking and top of capsill. Slabs to be lined and edged to fit perfectly close; joints to occur only over piles, and secured to piles and wing-pieces with spikes 7 in. long by  $\frac{3}{8}$ -in. diameter, one at each intersection with piles and ends. Ends of sheathing to be sawn to the corresponding slope of wing-pieces.

#### Clause 27.—Flooring.

Flooring to consist of sawn planking, unless otherwise specified, 4 in. thick, laid transversely, no plank to be more than 12 in. nor less than 6 in. wide. All planks to run the entire width of culvert in one length, unless otherwise specified; to be laid flush and close, and secured to girders by  $\frac{3}{8}$ -in. spikes, 7 in. long, two spikes at each intersection with girders when planks exceed 7 in. in width. Heads of spikes to be drifted down  $\frac{1}{4}$  in. All irregularities in surface to be adzed down.

#### Clause 28.—Kerb.

(a) Kerb logs to be sawn 6 in. x 6 in., chamfered and secured through planking and girders at regular intervals not exceeding 7 ft., with  $\frac{3}{4}$ -in. bolts.

(b) To be painted, as specified in clause 45.

#### Clause 29.—Hand-rail and End Posts.

(a) Hand-rail posts to be 6 in. x 4 in., those over abutments to be tenoned  $1\frac{1}{2}$  in. into capsill to be evenly spaced not more than 7 ft. apart, and secured to girders and kerbs by  $\frac{3}{4}$ -in. bolts as shown.

(b) Round end posts, one at each corner, 12 in. diameter, and neatly trimmed, to be sunk in the positions shown to a depth of 4 ft. in solid ground, or set on prepared footing, with approved material tightly rammed round them. Top of posts to be shaped as shown, covered with 6-lb. sheet lead secured to posts with lead-headed nails 2 in. long, having a wrought-iron ring  $2\frac{1}{2}$  in. x  $\frac{1}{2}$  in. tightly fitted and secured with four 3-in. wood-screws, heads countersunk. Holes to be mortised to receive ends of hand rails.

(c) Top rails to be 4 in. x 4 in., laid aris uppermost in notches cut on top of posts, and secured thereto by hoop straps 2 ft. x 2 in. x  $\frac{1}{8}$  in. iron, with  $2\frac{1}{2}$ -in. cup-headed bolts through each.

(d) Lower rails to be 4 in. x 3 in., secured to each post by one  $\frac{1}{2}$ -in. cup-headed bolt.

(e) Scarfs in rails to occur only at posts.

(f) Ends of rails to be inserted a depth of 6 in. into holes neatly cut in end posts, and secured thereto with  $\frac{3}{4}$ -in. treenails through posts and rails.

(g) All posts and hand-rail to be painted, as specified in clause 45.

#### Clause 30.—Second-class Timber Culverts.

(a) Sleepers, of the number and length shown, to be 12 in. diameter, sunk and firmly bedded, the ground being well rammed around them, to be shaped as shown on drawing, and the whole bottom of culvert formed accordingly.

(b) Two longitudinal sills, of the length and diameter shown, to be scribed and notched over sleepers, and secured thereto with treenails.

(c.)

(c) Key pieces, 12 in. diameter and 5 ft. long, to be notched over longitudinal sills, in the positions shown, the end of keys to be well bedded and rammed into trenches prepared to receive them.

(d) Capsills of sizes shown to be notched and treenailed over key pieces.

(e) Joists, of number and dimensions shown or specified, to be securely seated on flat bearings prepared on capsills, and secured thereto with  $\frac{3}{4}$ -in. spikes, 18 in. long. The upper side of joists to be adzed off to an even surface 5 in. wide to receive floor.

(f) Flooring to consist of sawn planking, unless otherwise specified, 4 in. thick, laid transversely, no plank to be more than 12 in. nor less than 6 in. wide. All planks to run the entire width of culvert in one length, unless otherwise specified; to be laid flush and close, and secured to girders by  $\frac{3}{4}$ -in. spikes, 7 in. long, two spikes at each intersection with girders where planks exceed 7 in. in width. Heads of spikes to be drifted down  $\frac{1}{4}$  in. All irregularities in surface to be adzed down.

(g) Two ballast pieces, of the dimensions shown, to be laid over each end of floor, and secured to outer joists with three  $\frac{3}{4}$ -in. bolts, and painted with three coats of paint, as specified in clause 45.

(h) Wing-pieces, 12 in. diameter, halved over ends of capsills and bolted thereto, to be set at a slope of  $1\frac{1}{2}$  to 1, as shown, and sunk 2 ft. 6 in. deep in solid ground.

(i) Sheathing of split, lined, and adzed slabs, 4 in. thick, to be pointed and closely driven to a depth of 2 ft. below the natural ground surface on the landward side of wing-pieces, heads afterwards being neatly sawn off. Four-inch slabs of sufficient depth shall be inserted between keys and joists in notches  $1\frac{1}{2}$  in. deep prepared for the purpose.

(j) Where it is necessary to increase height of culvert, Contractor shall, if specified, provide and fix extra sills, keys and sheathing as shown on plan.

#### Clause 31.—Third-class Timber Culverts.

(a) Sleepers, of the number shown, to be 12 in. diameter, sunk and firmly bedded, the ground being well rammed around them, to be shaped as shown on drawing, and the whole bottom of culvert formed accordingly.

(b) Two longitudinal sills, of the length and diameter shown, to be scribed and notched over sleepers, and secured thereto with treenails.

(c) Joists to be securely seated on flat bearings prepared on longitudinal sills, and secured thereto with 18-in. spikes. The upper side of joists to be adzed off to an even surface 5 in. wide to receive floor.

(d) Flooring to consist of sawn planking, unless otherwise specified, 4 in. thick, laid transversely, no plank to be more than 12 in. nor less than 6 in. wide. All planks to run the entire width of culvert in one length, unless otherwise specified; to be laid flush and close, and secured to girders by  $\frac{3}{4}$ -in. spikes, 7 in. long, two spikes at each intersection with girders when planks exceed 7 in. in width. Heads of spikes to be drifted down  $\frac{1}{4}$  in. All irregularities in surface to be adzed down.

(e) Two ballast pieces, of the dimensions shown, to be laid over each end of floor, and secured to outer joists with three  $\frac{3}{4}$ -in. bolts, and painted, as specified in clause 45.

(f) Sheathing of 4-in. slabs, and of sufficient depth, shall be inserted between joists, in notches  $1\frac{1}{2}$  in. deep prepared for the purpose.

(g) At the four corners of culvert shall be built with large rubble stones, or with turf if specified, a solid retaining wall, sloped at a batter of 1 to 1 from deck level, to a depth of 1 ft. below natural ground surface, as shown on drawing.

#### Clause 32.—Fourth-class Timber Culverts.

(a) Sleepers, of the number shown, 12 in. diameter, to be sunk and firmly bedded, the ground being well rammed round them, to be shaped as shown on drawing, and bottom of culvert formed accordingly.

(b) Two longitudinal sills, of the length and diameter shown, to be scribed and notched over sleepers, and secured thereto with treenails. The upper surface to be adzed to a true and level bearing at least 5 in. wide.

(c) Two capsills, of the length and diameter shown, to be adzed top and bottom to a flat surface, at least 5 in. wide, and laid over longitudinal sills, and secured thereto with three 1-in. bolts.

(d) Floor to consist of slabs as specified in clause 16, laid perfectly close together, and each slab secured with spikes  $\frac{3}{4}$  in. x 7 in., one at each end.

(e) Ballast pieces, 12 in. x 12 in., to be secured to capsills with 1-in. jagged driving bolts, 20 in. long, to be painted, as specified in clause 45.

(f) At the four corners of culvert shall be built with large rubble stones, or with turf if specified, a solid retaining wall, sloped at a batter of  $1\frac{1}{2}$  to 1 from level of roadway, to a depth of 1 ft. below the ground surface, as shown on drawing.

#### Clause 33.—Fifth-class Timber Culverts.

(a) Sleepers, of the number shown, 12 in. diameter, to be sunk and firmly bedded, the ground being well rammed round them, to be shaped as shown on drawing, and bottom of culvert formed accordingly.

(b) Two longitudinal sills, of the length and diameter shown, to be scribed and notched over sleepers, and secured thereto with treenails. The upper surface to be adzed to a true and level bearing at least 5 in. wide.

(c) Floor to consist of slabs as specified in clause 16, laid perfectly close together, and each slab secured with spikes  $\frac{3}{4}$  in. x 7 in., one at each end.

(d) Ballast pieces, 12 in. x 12 in., to be secured to capsills with  $\frac{3}{4}$ -in. jagged driving bolts, 20 in. long, to be painted, as specified in clause 45.

(e) At the four corners of culvert shall be built with large rubble stones, or with turf if specified, a solid retaining wall, sloped at a batter of  $1\frac{1}{2}$  to 1 from level of roadway, to a depth of 1 ft. below the ground surface, as shown on drawing.

#### Clause 34.—Timber Box-Culverts.

(a) Culvert to be built before placing in position, the bed of trench for same being previously prepared with soft clay at least 6 in. deep, and of full width of trench.

(b) Bottom of culvert to consist of 3-in. slabs, each secured to sides of culvert with two  $\frac{3}{4}$ -in. x 6-in. spikes, one at each end.

(c) Sides to be built of pieces of 9 in. x 6 in. hewn timber, placed on edge, one over the other, to break and butt joint as shown, and to be secured with  $\frac{3}{4}$ -in. bolts, spaced not more than 8 ft. apart; where joint occurs, a bolt on either side of same to be inserted through the floor, sides, and bottom, as shown.

(d) Floor to consist of slabs, as specified in clause 16, laid closely together, and each slab secured with spikes  $\frac{3}{4}$  in. x 7 in., one at each end.

(e) Ballast pieces, 12 in. x 12 in., to be secured to ends of side pieces with  $\frac{3}{4}$ -in. bolts, as shown, and painted, as specified in clause 45.

(f) At the four corners of culvert shall be built with large rubble stones, or with turf if specified, a solid retaining wall, sloped at a batter of  $1\frac{1}{2}$  to 1 from level of roadway, to a depth of 1 ft. below the ground surface, as shown on drawing.

(g) If specified, apron at outlet to be of large stones roughly squared, and roughly dressed on top surface and joints, set closely together. Pitching to be at least 9 in. deep.

#### Clause 35.—Pipe-laying.

(a) Pipes of length and diameter specified will be delivered to Contractor free of charge, at the place specified. He will have to make his own arrangements for conveying them to the work, and he will be answerable for their safety, and shall pay cost of breakage, if any, after he takes delivery of them. The trench shall be dug out, either square with roadway, or on such a skew as may be directed; it is to have such a fall towards outlet as may be directed, and is to be of such a depth as to admit of at least 18 in. covering, without any rise in the surface of road.

(b) The width of the trench is to be 1 ft. more than the diameter of the pipe, so as to allow 6 in. of good puddled clay at sides, from end to end of culvert, and, in case of a rocky bottom, pipes are to be laid in a 9-in. bed of similar clay, all to be well rammed, and the puddled clay to be 9 in. thick over pipes; all the joints to be made water-tight with well-tempered clay.

(c) Over this 3 in. broken stone of approved quality shall extend across the entire length of culvert, the full width of drain, and 1 ft. thick; the roadway is then to be brought to the proper height and neatly levelled.

(d) In the case of pipe culverts, the tendered price of culvert to include the pipe-laying as well as the two heads, Clause

### Clause 36.—Timber Heads for Pipe Culverts.

(a) At inlet and outlet ends, timber heads shall consist of two hewn vertical posts, 12 in. x 12 in., sunk 3 ft. below invert of pipe, approved material being well rammed round them, and to be of sufficient length to reach level of road surface, exclusive of tenons, which shall be 8 in. x 4 in. x 6 in. deep.

(b) Hewn ballast pieces, 12 in. x 12 in., ends projecting 9 in. over posts, to be chamfered and mortised over posts and secured thereto with treenails, and painted with three coats as specified in clause 45.

(c) Two wing-pieces, with a slope of  $1\frac{1}{2}$  to 1, of split, adzed, and lined slabs, 9 in. x 6 in., to be halved and fitted on to posts and secured thereto with 3 spikes  $\frac{1}{2}$  in. x 7 in. long. The lower ends, provided with feet as shown, to be sunk 2 ft. 6 in. into the ground, the earth being tightly rammed around them.

(d) Vertical sheathing of pointed slabs, 3 in. thick and not less than 6 in. wide, to be driven at rear of wings a depth of 2 ft. 6 in. below invert of pipe, the heads of slabs being neatly sawn to corresponding slope of wing-pieces. In face of pipe heads, similar sheathing, shaped to suit pipe, to be driven as shown. Slabs to be then carried up horizontally from top of pipe to under side of ballast pieces.

(e) If specified, the space between wings at outlet end to be excavated and trimmed to a regular concavity, and to be pitched with approved stone not less than 9 in. thick, roughly squared and dressed on top surface and joints, closely laid and well wedged with spalls.

### Clause 37.—Stone Heads for Pipe Culverts.

(a) At inlet and outlet ends, heads to be constructed of approved stone retaining walls, the excavation for which shall be carried down to a firm and approved foundation at least 18 in. below pipe.

(b) Walls to consist of squared rubble, laid in irregular courses, of large stones not less than  $\frac{1}{2}$  a cubic foot in content, with beds and joints squared and hammer-dressed. All stones to be laid on their natural beds, and bond to be carefully attended to throughout. Through stones to be hammer-dressed and extend the whole width of wall, to be used as the Superintending Officer may direct. The top course, and the stone immediately over but not resting on pipe, as also the two on either side of pipe as shown, to be through stones at least 12 in. thick. All stones to be carefully hand-packed and laid dry.

(c) The walls shall be of the length shown on drawing, full 20 in. wide on top, with face batter of 1 in 7, and vertical at back.

(d) At each end of both walls, a sloping retaining wing wall shall be built with large rubble stones, with a batter of  $1\frac{1}{2}$  to 1 from top corner of wall to a depth of 1 ft. below ground surface, as shown on drawing.

(e) If specified, the space between the wing walls at outlet end to be excavated and trimmed to a regular concavity, and to be pitched with approved stone of not less than 9 in. thick, roughly squared and roughly dressed on top surface and joints, closely laid and well wedged with spalls.

### Clause 38.—First-class Stone Causeway.

(a) The site of causeway shall be excavated on the lines and to the levels directed, or made up with rubble filling as may be required, soft and boggy spots being cleaned out and filled with spalls—to be of the dimensions shown on drawing—the two ends to be on a descending grade of 1 in 12, unless otherwise shown, to a central level length.

(b) Four round posts, 12 in. diameter, rounded on top, to be sunk in the position shown, a depth of 3 ft. 6 in. in solid ground, to which longitudinal sills, 12 in. diameter, shall be bolted with  $\frac{3}{4}$ -in. bolts, let into and scarfed over posts, which, with the exception of two central posts (which shall be cut off flush with top of sill) shall be 4 ft. above the sill. On posts, at every foot in height, shall be deeply cut figures 4 in. long, denoting the height above the lowest portion of causeway. Posts to receive three coats of white paint, and figures, black paint, as specified in clause 45.

(c) Upon the prepared foundation, spalls shall be carefully hand-packed on edge throughout the length and width of causeway a depth of 8 in., upon which other spalls shall be broken in place, filling the interstices and reducing the gauge of stones on and near the surface to  $2\frac{1}{2}$  in., making the total depth of stone at least 13 in., and bringing same up to level of top of longitudinal sill. The whole shall then be covered with blinding consisting of fine creek gravel or other approved gritty material, sufficient to thoroughly fill all interstices.

(d) An apron of approved concavity, extending the whole length of causeway, shall be built of rubble stones, carried out at the slope shown on drawing, the surface stones being roughly squared, dressed, and closely hand-packed and well wedged with spalls.

(e) Causeway complete as specified to be tendered for at a bulk sum.

### Clause 39.—Second-class Stone Causeways.

(a) The site of causeway shall be excavated on the lines and at the levels directed, or made up with rubble filling as may be required, soft and boggy spots being cleaned out and filled with spalls, to be of dimensions and have a regular concavity as shown in drawing.

(b) Three round posts, 12 in. diameter, two end ones rounded on top, to be sunk in the positions shown, a depth of 3 ft. 6 in. in solid ground, to which longitudinal sills, 12 in. diameter, shall be bolted with  $\frac{3}{4}$ -in. bolts let into and scarfed over posts, the central one being cut off flush with top of sill, while end posts to be 4 ft. above and have deeply cut figures 4 in. long, at every foot in height, denoting the height above the lowest portion of causeway. If the length of causeway will admit, and a suitably shaped sill is available, the centre post may be omitted, if so permitted by the Superintending Officer. Posts to receive three coats of white paint; figures black, as specified in clause 45.

(c) Upon the prepared foundation, spalls shall be carefully hand-packed on edge throughout the length and width of causeway a depth of 8 in., upon which other spalls shall be broken in place, filling the interstices and reducing the gauge of stones on and near the surface to  $2\frac{1}{2}$  in., making the total depth of stone at least 13 in., and bringing same up to level of top of longitudinal sill. The whole shall then be covered with blinding consisting of fine creek gravel or other approved gritty material, sufficient to thoroughly fill all interstices.

(d) An apron of approved concavity, extending the whole length of causeway, shall be built of rubble stones, carried out at the slope shown on drawing, the surface stones being roughly squared, dressed, and closely hand-packed and well wedged with spalls.

(e) Causeway complete as specified to be tendered for at a bulk sum.

### Clause 40.—Third-class Stone Causeways.

(a) Bed for causeway shall be excavated at an angle of 60 degrees with line of traffic, with such fall to scarp of bank as may be directed, to be 12 feet wide measured at right angles to flow of water, with a concavity of 9 in. On the upper side, from finished edge of causeway, the grade of roadway shall be uniformly cut a length of at least half a chain for full width of formation.

(b) Upon the prepared foundation, spalls shall be carefully hand-packed on edge throughout the length and width of causeway a depth of 8 in., upon which other spalls shall be broken in place, filling the interstices and reducing the gauge of stone on and near the surface to  $2\frac{1}{2}$  in., making the total depth of stone at least 13 in. The whole shall then be covered with blinding consisting of creek gravel or other approved gritty material, sufficient to thoroughly fill all interstices.

(c) A retaining wall of equal width to causeway, 18 in. thick on top, face slope 1 to 1, vertical at back, and carried down to a solid foundation, shall be constructed of large rubble stone along the outfall.

(d) If so specified, an apron shall be pitched of stone, closely hand-packed, at foot of retaining wall, as shown in drawing.

(e) Causeway complete as specified to be tendered for at a bulk sum.

### Clause 41.—Inlets and Outlets of Culverts and Causeways.

(a) All inlets and outlets to and from culverts, pipe drains, and causeways, shall be cut so as to properly direct the water into such culvert, pipe drain, or causeway, and carried out to such length and with such fall as the Superintending Officer may direct, to ensure the free and full discharge of water. Such drains shall be of the same width or carrying capacity as the culvert, pipe drain, or causeway, as the case may be. Cuttings to have side slopes of 1 to 1, and all surplus material so excavated to be removed 6 ft. clear of edge of drains, or distributed and spread if so specified.

(b) All work in connection with the above to be included in the tendered price of the culvert pipe drain, or causeway, as the case may be.

Clause

### Clause 42.—Rubble Backing.

(a) As soon as the abutments are completed, the rubble stone filling to be placed in position; the rubble to be 2 ft. wide on top at level of underside of deck, to be set on slopes of 1 to 1, the slopes being hand-packed; corners over capsills to be neatly faced with the largest stones procurable. Where the banks slope toward the abutments, benching 3 ft. wide to be provided in steps extending the full width of the rubble work.

(b) Unless otherwise specified, rubble backing is to be included in the tendered price of the culvert.

### Clause 43.—Approaches.

(a) As soon as the rubble backing, if specified, has been placed in position, the embanked approaches shall be undertaken at once, and be carried up in horizontal layers of 1 ft., so as to be well consolidated by the time the culvert is ready to open for traffic. Embankments, when completed and consolidated, to be of the width specified, with slopes  $1\frac{1}{2}$  to 1, and neatly trimmed. Cuttings to be of the width at bottom, as specified, with slopes neatly trimmed. Embankments and cuttings to be formed to gradients shown, and to have a uniform convexity, as specified. If the material for banks is taken from borrow pits, any such excavation must be made at a distance of at least 20 yards from site of culvert, and down stream thereof, and in such positions as will be pointed out by the Superintending Officer.

(b) The Contractor to force the traffic on embankments as much as possible, so as to thoroughly consolidate them.

(c) In case of culvert renewals, where existing approaches are retained, the side slopes of the road will have to be carefully dressed, with an incline of  $1\frac{1}{2}$  to 1 towards the inlet and outlet of culverts, as shown in drawing. The roadway is to be restored to the same condition as when the culvert was commenced, the earth well rammed to the sides of culvert, and the junction of road with the flooring properly made—all to the entire satisfaction of the Superintending Officer.

(d) In the case of a contract for formation, which also embraces a culvert, the cost of approaches shall be included in the tendered price for formation at per lineal yard,—or if the contract be for culvert and its immediate approaches only, the cost of approaches, whether in cutting or filling, to be paid for at per lineal yard.

### Clause 44.—Pitching.

(a) Pitching on slopes of embankments to be of approved stone, 12 in. thick, roughly squared and roughly dressed on beds, top, surface, and joints, and carried up in courses from a solid foundation.

### Clause 45.—Painting.

(a) The whole of the exposed timber in ordnance fencing, and all the hand-railing and other timber work above the level of deck (including kerbs and ballast pieces) to be thoroughly cleaned and receive a coat of raw linseed oil, to be then stopped with white-lead putty, and receive three coats of paint, the last being white. All tenons, mortises, joints, and butting surfaces in this portion of the work to receive, before being fixed in position, one coat of raw linseed oil and two coats of white lead and oil.

(b) All exposed ironwork in hand-railing and ordnance fencing to receive a priming coat of paint, and two coats of black varnish.

(c) First or priming coat for timberwork to consist of white lead and raw linseed oil in the following proportions:—  
18 lb. white lead.  
4 pints raw linseed oil.

(d) Second and third coats for timberwork, and for ironwork which may be inaccessible for painting when fixed, to consist of pure white lead ground in oil, raw linseed oil, and turpentine, in the following proportions:—

15 lb. white lead.  
4 pints raw linseed oil.  
1 pint turpentine.

(e) First or priming coat for ironwork and paint for rust spots, to consist of red oxide of iron (sesquioxide) ground in oil, mixed with a sufficient quantity of raw linseed oil, to bring it to a proper consistency. Boiled linseed oil or turpentine to be added if directed by the Engineer. If dry oxide of iron is used it must be ground with oil into a smooth paste before mixing, and the remaining oil added by degrees.

(f) Should the paint require thinning, raw linseed oil to be added to bring it to the required consistency.

(g) No paint to be applied during or immediately after wet weather, or while surface of timber or ironwork is wet, and an interval of forty-eight hours must elapse between each application.

### Clause 46.—Tarring.

(a) The flooring, girders, capsills, piles, wing-pieces, and sheathing of 1st class timber culverts, and any other timber that may be specified, to be tarred as follows:—

(b) The first coat to be coal tar laid on hot, and a second and third coat composed of 7 parts coal tar, 4 parts of Stockholm tar, and 1 part of pitch, thoroughly melted together, and applied hot. All joints and butting services to be well payed with the hot composition as above before fixing, and in finished work composition to be poured into the interstices and joints. Any timber, if inaccessible for tarring when fixed, to receive three coats before being placed in position. All tarring to be completed before painting is commenced, and no tar is to be applied during or immediately after wet weather, or while surface of timber is wet, and an interval of forty-eight hours must elapse between each application.

(c) The upper surface of flooring to be well sanded after being tarred.

### Clause 47.—Bolts.

(a) Unless otherwise shown on plans, all bolts through timberwork to have square heads and nuts, with two washers to each bolt—heads to be countersunk if required.

(b) Unless otherwise shown, bolts to be screwed four diameters in length. Washers for bolts  $1\frac{1}{2}$  in. diameter to be  $3\frac{1}{2}$  in. x  $3\frac{1}{2}$  in. x  $\frac{1}{4}$  in.; 1 in. diameter to be 3 in. x 3 in. x  $\frac{1}{4}$  in.;  $\frac{3}{4}$  in. diameter,  $2\frac{1}{2}$  in. x  $2\frac{1}{2}$  in. x  $\frac{1}{8}$  in., and  $\frac{3}{8}$  in. diameter,  $2\frac{1}{2}$  in. x  $2\frac{1}{2}$  in. x  $\frac{1}{8}$  in.

(c) Jagged driving bolts to be of the diameter specified, pointed, and jagged 6 inches from point.

### Clause 48.—Coppering.

Coppering to be fixed as follows:—The piles to be adzed to a smooth surface, and before being placed in position to receive one coat of Stockholm tar [and pitch applied hot, to then receive a coating of chunam  $\frac{1}{8}$  in. thick, and be sheathed with 16-oz. Muntz metal secured to piles with 1-in. Muntz metal nails,  $1\frac{1}{2}$  in. apart, or at the rate of  $\frac{3}{4}$  lb. per sheet. When piles have been driven to the satisfaction of the Engineer, coppering to extend from 1 ft. above high-water mark to the depth shown on plan. Chunam to be composed of finely ground slaked shell lime mixed with black-fish oil, and brought to the consistency of putty.

### Clause 49.—Ordnance Fencing. Type "A."

(a) When embankments are thoroughly consolidated to the satisfaction of the Engineer, the fencing to be undertaken.

(b) Sawn posts, evenly spaced as shown on drawing, to be 6 in. x 4 in., mortised into a sill 9 in. diameter x 7 ft. long, laid in a sloping position as shown, and secured by a hardwood treenail 1 in. diameter.

(c) Posts to be supported by one sawn strut, 4 in. x 4 in., to be secured to each set of posts and sills by  $\frac{3}{8}$  in. x 7 in. spikes.

(d) Sawn top rail to be 4 in. x 4 in., laid aris uppermost in notches cut on top of ordinary posts, and secured to each with hoop straps 2 ft. x 2 in. x  $\frac{1}{2}$  in. iron, and two  $\frac{1}{2}$ -in. cup-headed bolts.

(e) Sawn lower rail to be 4 in. x 3 in., secured to each ordinary post, over which it shall be halved, by one  $\frac{1}{2}$  in. cup-headed bolt.

(f) End posts, 12 in. diameter x 9 ft. long, to be let 4 ft. into ground and well rammed. Rails to be mortised into end posts and treenailed. Tops of posts to be protected by caps formed of 6 lb. sheet lead, secured to posts by lead-headed nails 2 in. long, and wrought-iron rings,  $2\frac{1}{2}$  in. x  $\frac{1}{4}$  in. secured by four 3-in. wood screws, heads countersunk.

(g) Two black fencing wires, No. 8 B.W. gauge, to be placed below lower rail, to pass through holes bored in posts, and be properly strained and plugged in position.

(h) Where embankment is less than 2 ft. high, posts to be let 3 ft. into the ground, as shown.

(i) The fence to be erected to a true line along the top, and not to follow the lesser irregularities of the ground.

(j) The whole of exposed timber in ordnance fence to be painted as specified in clause 45.

(k) Tenders to quote a rate per lineal foot of fence complete.

Clause

### Clause 50.—Ordnance Fencing. Type "B."

- (a) When embankments are thoroughly consolidated to the satisfaction of the Engineer, the fencing to be undertaken.
- (b) Sawn posts, evenly spaced as shown on drawing, to be 6 in. x 4 in., mortised into a horizontal round sill 9 in. diameter x 5 ft. long, and secured thereto by a hardwood treenail 1 in. diameter.
- (c) Posts to be supported by two sawn struts, 4 in. x 4 in., to be secured to each set of posts and sills by  $\frac{3}{8}$ -in. bolts and  $\frac{3}{8}$ -in. spikes, 7 in. long.
- (d) Sawn top rail to be 4 in. x 4 in., laid aris uppermost in notches cut on top of ordinary posts, and secured to each with hoop strap 2 ft. x 2 in. x  $\frac{1}{2}$  in. iron and two  $\frac{1}{2}$ -in. cup-headed bolts.
- (e) Sawn lower rail to be 4 in. x 3 in., secured to each ordinary post, over which it shall be halved by one  $\frac{1}{2}$  in. cup-headed bolt.
- (f) End posts, 12 in. diameter by 9 ft. long, to be let 4 ft. into ground and well rammed. Rails to be mortised into end posts and treenailed. Tops of posts to be protected by caps formed of 6-lb. sheet lead, secured to posts by lead-headed nails 2 in. long, and wrought-iron rings, 2 $\frac{1}{2}$  in. x  $\frac{1}{4}$  in., secured by four 3-in. wood screws, heads counter-sunk.
- (g) Two black fencing wires, No. 8 B.W. gauge, to be placed below lower rail, to pass through holes bored in posts, and to be properly strained and plugged in position.
- (h) Where embankment is less than 2 ft. high, posts to be let 3 ft. into the ground, as shown.
- (i) The fence to be erected to a true line along the top, and not to follow the lesser irregularities of the ground.
- (j) The whole of exposed timber in ordnance fence to be painted as specified in clause 45.
- (k) Tenders to quote a rate per lineal foot of fence complete.

### Clause 51.—Split Fencing. Type "A."

- (a) Split posts, set 8 ft. 3 in. apart, centre to centre, to be 8 in. x 3 $\frac{1}{2}$  in., mortised into a sill 9 in. diameter x 3 ft. 3 in. long, as shown on drawing.
- (b) Posts to be supported by a single strut, 4 in. x 2 $\frac{1}{2}$  in., to be secured to posts by  $\frac{3}{8}$  in. bolt, and to sills by 7 in. spikes, as shown on drawing.
- (c) Top rail to be 8 in. x 2 in., lower rail 8 in. x 2 in., each 9 ft. long. Tenons on ends of rails to be 6 in. long, adzed carefully to fit into 6 in. x 3 in. mortises, shouldered square, and finished so as to butt up to posts.
- (d) End of corner posts to be 12 in. diameter, sunk 2 ft. 6 in. into solid ground, or sunk 1 ft. 6 in. into rock, as may be required.
- (e) Where embankments are less than 2 ft. 6 in. high, or where there are no embankments, split posts to be sunk 2 ft. into solid ground, or let 1 ft. into rock if required.
- (f) Earth to be well rammed round sills, split or round posts, and in the case of posts in rock they shall be run in with special mortar.
- (g) Posts to be set uniform and upright, and erected to a true line along top, and not to follow the lesser irregularities of the ground.
- (h) Tenders to state rate per lineal rod of fence complete.

### Clause 52.—Split Fencing. Type "B."

- (a) Split posts, set 8 ft. 3 in. apart, centre to centre, to be 8 in. x 2 $\frac{1}{2}$  in., mortised into a horizontal sill 9 in. diameter by 5 ft. long, and secured thereto by a hardwood treenail 1 in. diameter.
- (b) Posts to be supported by two 4 in. x 2 $\frac{1}{2}$  in. struts, to be secured to posts and sills by  $\frac{3}{8}$  in. bolts and  $\frac{3}{8}$  in. spikes, 7 in. long.
- (c) Top rail to be 7 in. x 2 in., lower rail 8 in. x 2 in., each 9 ft. long. Tenons on ends of rails to be 6 in. long, adzed carefully to fit into 6 in. x 3 in. mortises, shouldered square, and finished so as to butt up to posts.
- (d) End or corner posts to be 12 in. diameter, sunk 2 ft. 6 in. into solid ground, or sunk 1 ft. 6 in. into rocks as may be required.
- (e) Where embankments are less than 2 ft. high, or where there are no embankments, split posts to be sunk 2 ft. into solid ground, or let 1 ft. into rock if required.
- (f) Earth to be well rammed round sills, split or round posts, and in the case of posts in rock, they shall be run in with special mortar.
- (g) One black fencing wire, No. 8 B.W. gauge, to be placed between rails, to pass through holes bored in posts, and be properly strained and plugged in position.
- (h) Posts to be set uniform and upright, and erected to a true line along top, and not to follow the lesser irregularities of the ground.
- (i) Tenders to state rate per lineal rod of fence complete.

### Clause 53.—Sand.

Sand to be sharp quartz sand of approved quality, free from all earthy, loamy, clayey matter, &c., and washed perfectly clean whenever the Engineer deems it necessary.

### Clause 54.—Cement.

- (a) The cement to be used throughout these works to be well packed in strongly made casks, to be the best Portland cement of approved brands and manufacture, delivered in thoroughly sound condition, fit for immediate use, and without requiring seasoning or air-slacking, to be free from any symptoms of staleness, caking, damage to the packing, hard or set lumps, and no barrel or portion of same to be used until it has been examined and approved by the Engineer.
- (b) Samples from various casks (not exceeding six in number), from each parcel brought on to the works, to be taken and submitted to the following tests:—The weight per struck bushel not to be less than 100 lb., and each cask shall contain not less than 387 lb weight of cement, exclusive of weight of cask and packing. The specific gravity not to be less than 3.10. The cement, when passed through a wire sieve of 2,500 meshes per square inch, to leave a residue of not more than 10 per cent.; through a sieve of 5,806 meshes, not more than 25 per cent.; and through a sieve of 14,400 meshes, not more than 40 per cent. The cement, when mixed neat with water, to give a tensile strength of not less than 250 lb. per square inch after three days' setting in water, 450 lb. after seven days, and 550 lb. after twenty-eight days. The cement is to be "slow setting," and when gauged with water to a stiff paste must set in a damp atmosphere of between 60° and 90° F. in from 1 $\frac{1}{2}$  to 6 $\frac{1}{2}$  hours. Neat cement of the consistency above mentioned, to be made in pats, kept in moist air until set, and then immersed in water to a temperature of between 60° and 80° F., and also placed in Deval's hot bath apparatus at a temperature of 180° F., as to symptoms of blowing, or any alteration or variation of form or volume. The cement, when mixed in the proportion of 1 of cement to 3 of standard sand (washed, dried, and sifted through a sieve of 400, and retained upon one of 900 meshes per square inch), and about 10.0 per cent. of the total weight of water, to give a tensile strength of not less than 150 lb. per square in. at seven days, and 230 lb. at twenty-eight days, the briquettes having been kept in a damp atmosphere, put in water twenty-four hours after they were made, and left in water at a temperature of between 60° and 80° F. The tensile strength will be ascertained by the Departmental testing machine with the load increasing at the rate of 200 lb. per minute, and the average breaking weight of six briquettes will be taken for each test. Should the sample fail in any or all of these tests, or not show a proper progressive increase in strength with age of briquette, then the Engineer may reject the whole parcel from which the sample was taken, and the Contractor shall at once remove the said parcel of cement from the site of the works at his own expense; failing which, the Engineer may have it removed at the Contractor's cost without further notice.
- (c) Empty casks to be destroyed. Contractor to provide and make approved gauge-boxes for measuring cement. Cement of a lighter weight than herein stipulated, but otherwise equal to the specified test, may be permitted to be used in the works, subject to the decision of the Engineer, and provided that the deficiency in weight is made up in quantity.

### Clause 55.—Mortar.

Mortar to be composed of one part Portland cement and two parts clean washed sharp sand, the proportions of each to be ascertained by measurement; the whole to be mixed with clean cold water, as may be directed, to be well incorporated and used fresh. All mortar to be mixed upon approved sawn timber platforms close to where mortar is required.

Clause



### Clause 56.—Concrete: in Footings, Walls, or Boxes.

(a) The concrete in footings, walls, or boxes to be mixed as follows:—Twenty-six cubic feet of approved stone of the kind specified, to be measured in a cubic gauge-box and evenly spread on a timber platform, thirteen cubic feet of approved sharp clean sand to be measured in a cubic gauge-box and placed in a level layer above the metal, four and one-third cubic feet of cement, measured in a cubic gauge-box, to be then evenly spread over the sand (equivalent to six of stone, three of sand, one of cement); after which all the materials to be carefully mixed and turned over twice, and then the whole to be mixed with clean cold water and thoroughly turned over twice, or oftener, if required, until, in the opinion of the Engineer, it shall be well incorporated and fit for the work before it leaves the platform. The concrete to be set in board frames, which are not to be removed until concrete has thoroughly set; walls, were exposed to view, to be then coated as per clause 65, and lined up in imitation of ashlar.

(b) Concrete to be used fresh and lowered in skips containing at least  $\frac{3}{4}$  cubic yard; each layer of 12 in. deep to be properly levelled and rammed, and if allowed to set to be picked up and run over with cement grout before any more concrete is laid. During progress of the work, steam-pipes, 3 in. in diameter, for holding-down bolts, to be built into walls at position shown. Weep-holes to be left in abutments as may be directed. Stone to be broken by hand or crushing machine, to pass freely with its largest dimension through a ring 2 in. diameter, to be sieved, washed with clean water, and be free from dirt or quarry refuse being deemed suitable for the work.

### Clause 57.—Masonry, Random Rubble uncoursed.

Random rubble uncoursed to consist of rubble laid in random courses in mortar, mixed as described in clause 55, the stones to be set at random, and all interstices to be filled with spalls and cement mortar, the beds and joints need not be dressed, but all projections must be knocked off. All stones to be laid on their natural beds; the bond to be carefully attended to throughout, and through-stones the whole width of wall to be used at intervals, as may be directed by the Engineer; the through-stones to be roughly squared and hammer-dressed. Quoins to be of quarry-faced ashlar, with 2-in. plumbing drafts and  $1\frac{1}{2}$ -in. drafts round arrises. During progress of the work steam-pipes, 3 in. diameter, for holding-down bolts, to be built into walls at positions shown. When masonry has been completed all the joints to be pointed with neat cement. Weep-holes to be left in abutments as may be directed.

### Clause 58.—Masonry, Random Rubble built in Courses.

Random rubble built in courses to consist of rubble as specified, laid in 12-in. courses in mortar, mixed as described in clause 55, the work in each course to consist of the flattest stones procurable, set at random, and pinned in with spalls and cement mortar, each course to be levelled up throughout before another course is laid, bed and joints need not be dressed, but all projections must be knocked off. All stones to be laid on their natural beds, the bond to be carefully attended to throughout. One-fourth part of the face of each course to consist of headers 12 in. deep x 18 in. to 24 in. wide x from 2 ft. 6 in. to 4 ft. long. Headers to be roughly squared and hammer-dressed. Quoins to be quarry-faced ashlar, with 2-in. plumbing drafts, and  $1\frac{1}{2}$ -in. drafts round arrises. During erection, holes 3 in. x 3 in. to be left in through-stones for holding-down bolts. When masonry has been completed, all the joints to be pointed with neat cement. Weep-holes to be left in walls as may be directed.

### Clause 59. Masonry, Squared Rubble uncoursed.

Squared rubble uncoursed to consist of squared rubble laid in irregular courses, set in mortar mixed as described in clause 55, the work to consist of large stones with beds and joints, squared and hammer-dressed. All stones to be laid on their natural beds, and the bond to be carefully attended to throughout; through-stones to be hammer-dressed, and extend the whole length of the wall, to be used at such intervals as the Engineer may direct. Quoins to be quarry-faced ashlar, with 2-in. plumbing drafts and  $1\frac{1}{2}$ -in. drafts round arrises. During erection, holes 3 in. x 3 in. to be left in through-stones for holding-down bolts. When masonry has been completed all the joints to be jointed with neat cement. Weep-holes to be left in walls as may be directed.

### Clause 60.—Masonry, Squared Rubble built in Courses.

Squared rubble built in courses to consist of squared rubble, laid in from 10 in. to 14 in. courses in mortar, mixed as described in clause 55, the work in each course to consist of one or more large flat-bedded, squared, and hammer-dressed stones; each course to be levelled up throughout before another course is laid. All stones to be laid on their natural beds, the bond to be carefully attended to throughout. One-fourth part of the face of each course to consist of headers the full depth of course, from 15 in. to 21 in. wide and from 2 ft. 6 in. to 4 ft. long; headers to be squared and hammer-dressed. Quoins to be of quarry-faced ashlar, with 2-in. plumbing drafts, and  $1\frac{1}{2}$  in. drafts round arrises. During erection holes 3 in. x 3 in. to be left in through-stones for holding-down bolts. When masonry has been completed all the joints to be raked  $\frac{1}{2}$  in. and pointed with neat cement. Weep-holes to be left in walls as may be directed.

### Clause 61.—Masonry, Block in Course.

Block in course to be set in mortar, mixed as described in clause 55, courses may vary in depth from 12 in. to 14 in., and the work to consist of large flat-bedded, squared, hammer-dressed stones, all stones to be laid on their natural beds, the bond to be carefully attended to throughout. One-fourth part of the face of each course to consist of headers the full depth of course, from 11 in. to 14 in. wide, and from 2 ft. to 3 ft. 9 in. long; headers to be squared and hammer-dressed. Quoins to be of quarry-faced ashlar, with 2-in. plumbing drafts and  $1\frac{1}{2}$ -in. drafts round arrises. During erection, holes 3 in. x 3 in. to be left in through-stones for holding-down bolts. When masonry has been completed all joints to be raked  $\frac{1}{2}$  in. and pointed with neat cement. Weep-holes to be left in walls as may be directed.

### Clause 62.—Masonry, Ashlar Facing with Rubble Backing.

Ashlar facing with rubble backing to consist of quarry-faced ashlar, backed with rubble and set in mortar, mixed as described in clause 55; the ashlar masonry to be in 12-in. courses, the beds and joints all full and chisel-dressed perfectly square with the face, the quoins to have 2-in. plumbing drafts and  $1\frac{1}{2}$ -in. drafts round arrises; no stone to be less on bed than height of course, to be headers and stretchers alternately, the headers to go the full width of course, the backing to be of hammer-dressed stone with level beds and square joints, no joints to be more than  $\frac{1}{2}$  in. in width, and no stone less than 2 ft. in length; at every third course the whole of the masonry to be levelled up and grouted with cement grout. During progress of the work, steam-pipes, 3 in. in diameter, for holding-down bolts, to be built into wall at positions shown. When masonry has been completed, all the joints to be raked  $\frac{1}{2}$  in. and pointed with neat cement. Weep-holes to be left in walls as may be directed.

### Clause 63.—Brickwork.

(a) Bricks to be of well-mixed material of approved quality and uniform fineness, to be new, sound, hard, well-burnt kiln bricks, free from cracks and all other defects, truly rectangular, with sharp arrises, of approved dimensions and form, to be specially radiated for arches and invert, and moulded for the cutwater plinths, string-courses, and parapets.

(b) The work to be in English bond, set in mortar, mixed as described in clause 55; the external rows of bricks to be alternately headers and stretchers, and those within the walls to be all headers. All courses to be at right angles to faces of walls. Bricks to be cleaned and soaked in clean water for at least 10 minutes before being used. All the joints to be thoroughly filled with mortar; but the joint not to exceed  $\frac{1}{4}$  in. thickness. On completion of brickwork the joints to be raked  $\frac{1}{4}$  in. and pointed with neat cement.

(c) Bricks to be tested for transverse strength and for porosity. The transverse strength of the brick to be tested in the Departmental testing-machine by laying the brick horizontally on its base of 3 in. between supports 7 in. apart, and applying a weight of 6,000 lb. at the centre.

(d) Porosity.—Bricks immersed in water for twenty-four hours must not increase in weight more than 6 per cent.

(e) Twelve sample bricks, from bricks stacked on the works, will be selected for testing, and should any of the bricks fail to withstand either of the above tests, the Engineer may reject the whole stack of bricks from which the 12 bricks were taken.

### Clause 64.—Grout.

Grout to be composed of one part of Portland cement and one part of clean, washed, sharp sand, mixed fluid in tubs close to where required, and used fresh.

Clause

Clause 65.—Coating.

Coating to be composed of one part of Portland cement and two parts of clean, sharp sand, well mixed and incorporated with water; to be laid on in two thicknesses, and when finished to be not less than  $\frac{3}{8}$  in. thick. All surfaces to be thoroughly cleaned and well watered before coating is applied.

Clause 66.—Puddle.

Puddle to consist of the approved clay, to be carefully turned over and mixed with clean water, as may be directed, until the clay, in the opinion of the Engineer, has become of one even and uniform colour and plasticity.

Clause 67.—Material from Crown Lands, &c.

Contractors must provide themselves, at their own cost, with permits or licenses to quarry, excavate, and remove stone, gravel, or soil from unused Crown Lands, or to cut timber for culverts, &c., as laid down in the regulations specially made in that behalf; and if, by non-compliance with instructions, they infringe any of the clauses of the Timber and Quarry Regulations under the Crown Lands Act of 1884, they will be personally liable to the penalties therein declared. With regard to material to be obtained from private lands, Contractors must make their own arrangements with proprietors.

Clause 68.—Traffic.

(a) During continuance of this Contract, the Contractor is to maintain in fair order the portion of road comprised therein (except where contract is for supply of metal only), and also to afford every facility for the passing of the traffic during the execution of the work, and, if necessary, to securely fence off existing road, and provide new, or keep the existing out turns in repair, as may be determined by the Engineer.

(b) In the case of culvert renewals, or where proposed culverts will occupy the existing track, Contractor shall provide, if so specified, temporary culverts, and remove same upon completion of contract. He shall also provide proper guards for the drains and water-tables.

(c) The Contractor to take all due precaution to prevent accident to the public from leaving culverts open or placing heaps of stone in dangerous positions, and will be responsible for all damage arising from neglect of these precautions. He shall also provide such lights and signals by day and by night as the Superintending Officer may direct. In the case of the Contractor neglecting to carry out such directions, the Engineer may, without further notice, take such steps as he may think fit to secure the safety of the public, and shall deduct cost of same from Contractor's final payment.

Clause 69.—Tackle.

All tackle and staging used in the execution of the work to be subject to the approval of the Superintending Officer.

Clause 70.—Sunday Work.

No night or Sunday work will be allowed without special orders from the Superintending Officer; but if required on any emergency, Sunday or night work to be carried on without extra charge.

THIS is the Schedule to Specification marked "E" referred to in my annexed Agreement with Her Majesty the Queen, dated the twenty-seventh day of March, A.D. 1899.

Witness—W. C. ADAMS.

THOMAS MURPHY.

GENERAL CONDITIONS.

Interpretation of Terms

1. WHENEVER the terms hereafter explained in the present clause occur in these or any Special Conditions, or in the Contract or Specification, or Schedule or Specification, they shall be held to mean, and shall mean, as follows:—

"Government" shall mean the Government of New South Wales promoting this undertaking.

"Minister" shall mean the Secretary for Public Works of the Colony of New South Wales for the time-being.

"Engineer" shall mean the Commissioner for Roads, or the Engineer-in-Chief having the principal charge of the works, as the case may be, or the person acting as such for the time being, respectively.

"Superintending Officer" shall mean any person or persons who may from time to time be entrusted with the superintendence of the works on behalf of the Government.

"Contractor" shall mean the person or persons who contracted to execute the works.

"Special Conditions" shall mean any "Special Conditions" hereto attached and forming part of the Contract; and such Special Conditions shall be read with the General Conditions as part and parcel of the Contract.

"Schedule of Prices" shall mean the rates by which the Contractor has offered or agreed to execute the Contract, where the same is based on a Schedule of Prices; and be the basis on which the value of any extra works or any deductions shall be calculated, and progress payments made, whether the Contract be one of a Schedule of Prices or a bulk sum.

"Plans" shall mean and include all drawings referring to the works and explanatory of, or supplementary to, the Specification and Schedule to Specification.

"Works" shall mean the works set out in the Specification, Schedule to Specification, and Plans, or, in the event of there being no Plans, in the Specification or Schedule to Specification only.

"Net Claim" shall mean the sum claimed by the Contractor after deducting therefrom the sum acknowledged by the Department to be due.

"Board" shall mean the Board of Reference for the Department of Public Works, consisting of the Under Secretary for Public Works and Commissioner for Roads, the Engineer-in-Chief for Public Works, the Engineer-in-Chief for Railway Construction, the Government Architect, and the Engineer for Sewerage Construction; provided that any member of the of the Board who may give his decision in the first instance shall not be qualified to vote upon the matter referred to it for decision.

Supply of Labour, Materials, and Plant.

2. The Contractor shall, except in so far as the Specification may expressly state to the contrary, provide at his own cost and expense all labour, materials, and plant, and everything which the Engineer may consider necessary for the proper and complete performance of this Contract. No materials or plant placed on the site of the works shall be removed therefrom, or otherwise disposed of, without the consent of the Engineer.

Plans, Specifications, &c.

3. The Plans, Specifications, and Schedules to Specifications represent generally the forms, dimensions, and description of the several works. Where any discrepancy exists between the dimensions, as indicated by the scale and those marked in figures, the figures are to be considered as correct, and are to be taken in all cases in preference to the measurements by scale. Or if there be any discrepancy between the figures or dimensions, or the form of construction, or the materials as indicated in the Plans, and the dimensions and materials given in the Specification, or the Schedule to Specification, the directions of the Specification or Schedule to Specification shall be adopted; and in all cases of defective description, or any ambiguity, the explanation given by the Engineer shall be binding upon the Contractor. Also anything contained in the Plans, and not in the Specification, or Schedule to Specification, or anything contained in the Specification or Schedule to Specification, and not shown in the Plans, shall be equally binding as if it were contained in both. If neither Specification, Schedule to Specification, nor Plans contain any mention of minor parts, which, in the opinion of the Engineer, are reasonably and obviously necessary for the satisfactory completion of the works, such parts are to be provided by the Contractor without any extra charge, as if they were specially mentioned, and shall be deemed to be, and hereby are, included in this Contract.

As works described in, or implied by the Specification, or Schedule to Specification, shown on any of the Plans, or set forth in any lists or tables thereon, or attached thereto, as well those expressly provided for, are to be made and executed in every detail conformably to the several plans already prepared, or which may be prepared hereafter for the purpose of this Contract, in strict accordance with the provisions of the Specification, Schedule to Specification, and Conditions, and to the entire satisfaction of the Engineer.

Clause

## Copies of Plans, &amp;c.

4. A copy of all Plans, Specifications, and Schedules to Specifications, required by the Contractor for carrying on the works will be provided by the Government, but must be returned before a final Certificate for the work can be given. Any additional copies which may be required and are supplied by the Department shall be paid for by the Contractor at a rate to be fixed by the Engineer.

## Setting out Works.

5. The works will be set out—that is to say, all necessary centre lines and levels will be given to the Contractor—except in the case of buildings, when, in the absence of setting out, a block plan will be supplied, from which he must work; but the Contractor must satisfy himself of the accuracy of the setting out, as no work incorrectly set out or improperly executed will be paid for.

## Protecting and maintaining Signals and Marks.

6. All bench marks, pegs, and signals on the surface, and all alignments, and level marks underground put in by the Engineer or Superintending Officer for the purpose of checking the Contractor's work, will be confided to the care of the Contractor. He shall, at his own expense, take all proper and reasonable precaution and care to preserve and maintain them in their true position; in the event, however, of their being disturbed or obliterated by accident or from any other cause whatever, they may, if necessary, be replaced by the Engineer or Superintending Officer at the Contractor's expense, and the cost thereof deducted from any moneys then due or thereafter becoming due to the Contractor.

## Possession of Ground.

7. In giving the Contractor possession of the site it shall not be deemed that he is to have the exclusive possession, but only a limited possession—that is to say, such possession as will enable him to perform the works comprised in this Contract. The Minister may at any time take possession of any portion of the works or ground or intended site of the works for the purpose of carrying on any other works or for any purpose whatsoever. The Contractor must procure for himself all other land which he may deem requisite for any temporary purposes or for his own convenience.

## Access to Works.

8. The Engineer, or any other person authorised by him, shall have free and uninterrupted access at all times to the works, and during working hours to any workshop or premises, not on the site of the works, where materials may be in preparation or stored for the purpose of this Contract. The Contractor shall give the Engineer all particulars as to the mode and place of manufacture of any of the materials proposed to be used in connection with this Contract, and shall facilitate in every way the inspection of the same.

## Contractor's Risk.

9. The Contractor shall take upon himself the whole risk of executing the works to the satisfaction of the Engineer, and in accordance with the Plans, Specification, and Schedule to Specification.

## Contractor to be represented.

10. The Contractor at all times during the progress of the works, when he is not personally superintending them, must have a responsible agent or overseer in charge to receive instructions from the Superintending Officer or Engineer, and to represent the Contractor for all purposes of this Contract.

Any notice or any written instructions to be given or delivered to the Contractor under this Contract shall be deemed to have been so given or delivered when given or delivered to the Contractor or his representative at the work, or left at the Contractor's usual or last-known place of abode or business.

## Order of Procedure.

11. The Engineer shall have full power to decide in what order in point of time the various parts of the work or works comprised under this Contract shall be carried out.

## Power of Entry.

12. The Engineer shall have the power, at his discretion, without vacating this Contract, to enter upon, by himself or his agents, and make use of any part or parts of the work comprised under this Contract, and his doing so shall in no wise be held as a waiver of the responsibility of the Contractor in respect of this Contract, except in so far as any injury may accrue to such work so entered upon, by reason of any proved carelessness, to the satisfaction of the Engineer, of any employee of the Government, in which event the Contractor shall be free from liability on account thereof, but not otherwise.

## Instructions to be obeyed.

13. Should the Contractor refuse or neglect to carry out the instructions of the Engineer or the Superintending Officer, the Engineer shall have the power of suspending the usual monthly certificate until such instructions have been complied with.

## Power to dismiss men.

14. The Engineer may require the dismissal within twenty-four hours by the Contractor of any agent, overseer, foreman, workman, or other person employed on the works, and, in the event of the Contractor refusing or neglecting to comply with such requisitions, all further payments on account of the work may be stopped until such dismissal is effected.

## Bad Materials or improper works to be removed.

15. The Contractor shall be bound to remove within twenty-four hours, if written notice from the Engineer or Superintending Officer to that effect be given, any materials or work, whether fixed or not, which may appear to the Engineer to be of an inferior or improper description; and, in case of refusal, the Engineer shall have the power to get such materials or work removed at the Contractor's expense, and to withhold all payments until such instructions have been complied with.

## Extra Works—Omissions of Works.

16. If at any time whilst the works are in hand it shall be deemed expedient by the Engineer to order material or work of a different description to that specified, or to increase or diminish the dimensions or extent of any works to be done under this Contract, or to alter their situation or vary the form or dimensions of any of the said works, or of any part thereof, or to make any deviation or to substitute one class of work for another, he shall have full power to do so, and to order and direct any such increase, diminution, alteration, deviation, or substitution, and the works involved in any such increase, alteration, deviation, or substitution, shall be executed by the Contractor if of the class of works provided for in the Schedule of Prices, at such Schedule Prices; and no such increase, diminution, alteration, deviation, or substitution of works shall in any way annul or set aside this Contract, or extend the time for the completion thereof, unless such extension shall have been given as provided for in clause 24; but such additions or alterations shall be measured and paid for, or deducted from the Contractor's account, as the case may require, according to the Schedule of Prices. Provided that if any portion of the works so ordered to be done shall not be, in the opinion of the Engineer, of the same value or class of works provided for in the Schedule of Prices, the same shall be executed by the Contractor at such prices as may be agreed upon with the Engineer; but if the Contractor and Engineer cannot agree as to the price to be paid, the Engineer may order and direct the same to be done by such person or persons as he may think fit. Before any extra work, or work of an altered value or class, is undertaken by the Contractor, it shall be imperative for him to procure an order in writing from the Engineer for carrying out such extra or variation of work, and the Contractor shall not be entitled to any payment for such extras or variations unless he produce the written order for the same, as aforesaid, and he shall not be entitled to plead that the Engineer omitted to give such written order, as it is to be distinctly understood that the onus of obtaining such order shall be on the Contractor. The Contractor shall not be entitled to any other rate than the Schedule rate on any plea that the work was in a different position or of a different class from, or in a more difficult position than, that shown on Plan or described in Specification or Schedule to Specification, or carried out under circumstances not contemplated in the Specification, unless an agreement entitling him to payment by other than the Schedule rates shall have been previously made and signed by the Engineer and the Contractor.

## Valuation of Omissions.

17. The Engineer shall have the power to direct the omission of the carrying out of any part or parts of the said works, but not amounting to the omission of the whole; and the value of such work so omitted in such case, calculated at the Schedule rates, or in the event of there being no Schedule rates, calculated on the basis of the proportionate value which such work bears to the lump sum, as ascertained by the Engineer, whose decision on that point shall be final, shall be deducted from the Contract sum.

## Net Measurements.

18. The whole of the work shall be executed and paid for according to the Contract dimensions, and no allowance will be made for any excess of dimensions above those found on the working plans now exhibited, or which may be afterwards supplied, notwithstanding any general or local custom to the contrary, unless such excess has been expressly ordered. In the case of dressed masonry all cubic measurements will be taken at the extremes, and in the case of rock-faced masonry all measurements will be taken at the draft. With regard to timber, all framed work will be paid to extremes, but in no case will scarfs in hewn or sawn timber or round logs be paid for.

## Contractor liable for injury to adjoining Lands, Properties, &amp;c.

19. The Contractor shall not commit any act of trespass, and shall effectually protect all adjoining properties and owners thereof against any loss, damage, or injury that may occur through the carrying on of the works, whether to buildings, goods, property of any kind, or to persons; and in case any such trespass be committed, or any such loss, damage, or injury occur, the Contractor shall make full compensation, and shall make good all or any such loss, damage, or injury; and if any such compensation for trespass, or any such loss, damage, or injury be recovered against the Government in the first instance, it may be deducted from any money due or coming due to the Contractor under this Contract, or may be recoverable from the Contractor as liquidated damages in that respect incurred.

## Damages, &amp;c., to be paid for by the Contractor.

20. All damage, injury, or loss that may happen to the works from any cause whatever during their progress must be made good by the Contractor at his own expense; and the whole of the works must be delivered up, complete in every respect, according to this Contract, and the care and maintenance of all works under this Contract shall remain with the Contractor until the Engineer shall, by notice in writing under his hand, inform the Contractor that he has taken charge thereof; and until such notice shall have been given the Contractor shall be responsible for all accidents, from whatever cause arising, and shall make good all damages thereto.

## Contractor not to Sublet Works or Assign Moneys.

21. The Contractor shall not assign or underlet this Contract, or any part thereof, or assign or mortgage, charge or encumber all or any of the moneys payable or to become payable under this Contract, or any other benefit whatsoever arising, or which may arise, under this Contract, to any person without the consent in writing of the Minister being first obtained. The Contractor for each and every breach of this Condition shall be liable to pay to the Government the sum of £50 as and for liquidated damages; and the sum or sums payable as such damages may be deducted from any sum or sums due to the Contractor under this or any other Contract with the Government. And any permission to assign or underlet works to be done under this Contract shall not discharge the Contractor from any liability in respect of this Contract, and shall extend only to the permission actually given, but not so as to prevent any proceedings for any subsequent breach of this Condition; and all rights under these Conditions shall remain in full force, and shall be available as against any such subsequent breach.

## Truck System not allowed.

22. The workmen and labourers of every class employed on the works shall be paid their wages in full, in money, current coin of the Colony, at least once in every month, and no ticket or other system of payment by provisions, liquors, or goods will on any pretence be allowed; nor shall the Contractor, or any person or persons employed by him, or in any way connected with him, establish any shop for the supply of provisions, liquors, or goods; nor shall the Contractor oblige his workmen to take provisions, liquors, or goods of any kind from any person in particular. The workmen and labourers of every class shall be paid on the works if it be possible, or in some building in the vicinity; and in no case shall they be paid at a public-house or other place where liquors or refreshments are sold. The Contractor for each and every breach of this Condition shall pay to the Government the sum of £50 as and for liquidated damages; and the sum or sums payable as such damages may be deducted from any sum or sums due to the Contractor under this or any other Contract with the Government.

## Power of the Government to pay Workmen and Tradesmen.

23. Before the payment of any money to the Contractor, the Engineer may require from him a statutory declaration that the tradesmen supplying materials for or incidental to the works, and the workmen and labourers of every class employed on the works, have been paid their claims of every kind in full, in current coin of the Colony, and to the latest date at which such wages or claims are due; and the Engineer may withhold the payment of any money that may be due or become due to the Contractor until such declaration has been made and delivered to him.

If the Contractor shall fail or omit to pay the claims of any such tradesmen, workmen, or labourers, in the current coin of the Colony, it shall be lawful for the Minister, or the Engineer as often as the same shall happen upon complaint of such failure or omission made by any such tradesman, workman, or labourer, and upon proof to the satisfaction of the Minister or Engineer of such failure or omission to pay the amount of such claim to such tradesman, workman, or labourer, and to deduct the same amount from any money then due or owing, or thereafter to become due or owing, to the Contractor under this Contract.

## Delay.

24. If the Contractor shall not be able to obtain possession of any portion of the ground required for the execution of the works to be done in connection with this Contract, or if from the non-delivery, or any delay in the delivery to the Contractor, of any materials which under this Contract the Minister is to supply, or from any cause whatever arising out of the acts or defaults of the Minister, or any officers or servants in his employment, or from any accident happening to the said works during their progress not arising from the neglect or default of the Contractor or his servants or workmen, the Contractor shall be delayed or impeded in the execution of his Contract, the Contractor may from time to time within seven days of the happening or occurring of such act, default, or accident, apply in writing to the Minister for an extension of time on account of such act, default, or accident, setting forth the cause of such application, and the Minister shall, if he think the cause sufficient, but not otherwise, allow by writing under his hand such an extension of time as he shall think adequate; and the penalties, sets-off, and deductions to which under this Contract the Contractor is liable shall not attach until the expiration of such extension of time, but shall attach, and the Contractor shall become liable to the same, from the date of the expiration of such extended time or times. And unless the Contractor shall make such application within the time and in the manner aforesaid, and unless and until the Minister shall allow such extension or extensions of time as aforesaid, the Contractor shall not by reason of any delay arising from the cause or causes aforesaid, or any of them, be relieved in any way or to any extent of his liability to finish and complete the works within the time in this Contract specified; and, in default of his so doing, to pay and be subject to the liquidated damages, deductions, and sets-off as in these Conditions provided; nor shall the Minister be deprived in any way or to any extent of his right to deduct or recover any sum or sums as liquidated damages, and not as or in the nature of a penalty or to make deductions or sets-off which under this Contract he is entitled to make, deduct, set-off, or receive from the Contractor for or by reason or on account of any delay in the completion of the work or any portion of the same, nor shall the rights, powers, and authorities by these Conditions given to or vested in him be in any way affected.

## Patent Rights to be included.

25. The Contractor is to include in his Tender the amount of all patent rights and royalties which may be claimed by any patentee or patentees for the manufacture and use of any portion of this work, and must undertake to liquidate the same when required to do so.

## Free Passes, &amp;c.

26. No free passes on any of the Government Railways will be granted either to the Contractor or his agents, nor will any materials or articles of any description be conveyed free of charge.

Conditions

### Conditions not to be waived.

27. None of the Conditions of this Contract shall be varied, waived, and discharged, or released either at law or in equity, unless by the express consent of the Minister, testified in writing under his hand.

### Progress Payments without Prejudice.

28. No progress payment given to the Contractor shall prevent the Engineer from at any future time before the final settlement rejecting all unsound materials and improper workmanship discovered subsequently to the giving of any previous payment; and notwithstanding any approval given or made by the Superintending Officer that portions or the whole of the works have been satisfactorily performed, the Engineer may require the Contractor to remove or amend at any future time previously to the final payment on account of the work, any work that may be found not in accordance with this Contract; and the Contractor must remove and amend at his own cost all such work when so required; and if he refuse or neglect to do so, the Engineer shall have the power to carry out such work, and to deduct the whole cost thereof from any moneys that may be due, or that may become due, to the Contractor.

If, in the opinion of the Engineer, further inquiry is necessary or desirable before any progress payment is made, he shall have the power to withhold the certificate on which such payment would have been made for any period which he may consider necessary for the purpose of such inquiry.

### Security.

29. Within fourteen days after the notice of the acceptance of his Tender shall have been given to the Contractor, or posted to the address of his last-known place of business or residence, he shall deposit with the Minister, or at the option of the Minister in some Bank or Banks in Sydney, upon fixed deposit in the name of the Minister, a minimum deposit of £2 if his Tender be £40 or under, or a sum representing £5 per cent. on the pounds if his Tender be over £40 and under £200; but if £200 or over, then a sum calculated at the rate of £5 for every £100 or part thereof on the amount of his Tender up to the sum of £100,000, and at the rate of £1 for every £100 or part thereof in addition, for any amount over that sum, to be held by the Minister as security for the due and proper performance and completion of this Contract until the Engineer has certified that the whole of the work in the said Contract has been completed to his satisfaction, and the period specified for the maintenance of the said works has expired, or until this Contract has been cancelled by the Minister under the power given to him in that respect under clause 32 of these Conditions, in which last-mentioned event happening the money so deposited shall become forfeited to the Crown, and shall be held by the Colonial Treasurer, for and on behalf of Her Majesty the Queen, as liquidated damages. If, however, this Contract shall not have been cancelled under the said clause, and if the works comprised in this Contract are not completed within the time mentioned in clause 34 of these Conditions, the liquidated damages which, under the last-mentioned clause are made payable to the Minister, may be deducted and taken from the money so deposited.

If the Contractor fail to deposit the sum as hereinbefore provided within fourteen days from the acceptance of the Tender, or if he fail to execute the Contract for the due performance of the works mentioned in the said Tender, the Minister shall have the option of and full power and authority to declare such acceptance to be annulled, in which case the amount of the preliminary deposit will be absolutely forfeited to the Crown, as provided by the Regulations of the Tender Board.

No Tenderer will be authorised to proceed with the work tendered for until he has made the deposit as aforesaid, and has executed the required Contract for the due performance of the said works, it being hereby declared that for all or any work done or materials found and provided by the Contractor before the due execution of the said Contract, or the said moneys being deposited as aforesaid, he shall not have any right of action, claim or demand against the Minister.

The Contractor will be entitled to receive any interest that may be payable upon the fixed deposit of the money, if the money be placed in a Bank at fixed deposit, as such interest becomes payable, but it is expressly declared that the Minister is not to be held liable or answerable in any way for any loss on the money so deposited or for any loss of interest from the fixed deposit not being renewed.

### Payments.

30. Progress payments may be made once in every month, unless the same shall become not payable by reason of anything contained in these Conditions, on the certificate of the Engineer, as the work proceeds, in the proportion of 80 per cent. of the value of the work returned, until the sum retained reaches the amount of the deposit provided for in the preceding clause, when no further deductions will be made. The amount of the retention money will be held by the Minister, in addition to the cash security, unless otherwise provided for in the Specification, until the Engineer has certified that the whole of the works have been satisfactorily completed, and the period specified for the maintenance of the said works has expired, and all accounts finally adjusted, when the retention money, in addition to the cash security, will be paid to the Contractor; and it is expressly declared that until a certificate has been given by the Engineer to the Minister that the work done by the Contractor has been executed and completed to his satisfaction, the Contractor shall have no right or claim in respect of any work done or materials provided, nor to the payments from time to time to be made under this Contract, or to the final payment upon the whole of the works being finished.

### Delay or Bad Work, Bankruptcy, &c.

31. In case the Engineer shall be at any time dissatisfied with the mode of proceeding, or at the rate of progress of the works or any part thereof, or in case the Contractor shall at any time neglect or omit to carry out the instructions of the Engineer, or to dismiss any person employed when required, or shall neglect or omit to remove any materials or work which he is required to remove under Condition 15, or in case the Contractor shall assign or underlet this Contract, or any part thereof, or assign or mortgage, charge or encumber, or attempt to assign, mortgage, charge or encumber, all or any of the moneys payable or to become payable under this Contract, or any other benefit whatsoever arising or which may arise under this Contract, without the consent in writing of the Minister being first obtained, or in case the Contractor shall make default in insuring and keeping insured, in cases where insurance is specified, and depositing the policies and receipts for premiums in accordance with these Conditions, or in case the Contractor shall become bankrupt, or shall make an assignment of his estate for the benefit of creditors, or shall make an arrangement or composition with his creditors, then and in every such case the Minister shall be at liberty, without vitiating this Contract, and without prejudice to any right that may have accrued to liquidated damages under any of these Conditions, to take the works wholly or partially out of the hands of the Contractor and to employ or contract with any other person or persons to execute the same, and for that purpose to take possession of and use all horses, materials, plant, tools, implements and things on or about the said works, without making any allowances for the same, and all damages and expenses thereby incurred shall be ascertained and certified by the Engineer, and together with any sum payable as liquidated damages under these Conditions shall be deducted from any money that may be then due or may thereafter become due to the Contractor or may have been deposited by him; and if the money then due, or thereafter becoming due to the Contractor, or deposited by him, be not sufficient for that purpose, the balance remaining unpaid shall be a debt due by the Contractor to the Minister, and may be recovered accordingly.

### Cancellation of Contract.

32. In any or either of the events mentioned in the last preceding clause of these Conditions, the Minister shall have the option and full power and authority in lieu of proceeding under such clause, and without prejudice to any right that may have accrued to liquidated damages under any of these conditions, to cancel this Contract whether there are any works remaining to be done or not; and in such case the moneys which shall have been previously paid to the Contractor on account of the works executed, shall be taken by him as full payment for all works done under this Contract; and upon notice in writing under the hand of the Minister that he, under the authority of this Condition, cancels this Contract, being given to the Contractor, this Contract shall be cancelled, and thereupon all sums of money that may be due to the Contractor, or unpaid, together with all implements in his possession, and all materials provided by him, upon the ground upon which the work is being carried on, or adjacent thereto, shall be forfeited, and all sums of money held as security or named as liquidated damages for the non-fulfilment of this Contract within the time specified shall also be forfeited and become payable to the Government, and the said implements and materials shall become and be the absolute property of the Government, and with the moneys so forfeited and payable as aforesaid shall be considered as ascertained damages for breach of Contract.

### Insurance.

## Insurance.

33. The Contractor shall from time to time, when required to do so by the terms of the Specification, insure the works against loss or damage by fire, in an office to be approved in the name of the Minister for the amount of the full value of the work completed, as determined by the Engineer, and shall lodge with the Engineer the policies and receipts for the premiums for such insurance, and shall continue such policies until possession is given up to the Government; in default of which the Minister shall be at liberty to insure and deduct the amount of the premiums paid from any moneys payable to the Contractor, and may refuse payment of any certificate until such policies and receipts are handed in as aforesaid; but this insurance is to be no limit or bar to the liability and obligation of the Contractor to deliver up the works to the Minister completed in all respects according to the Contract. In case of loss or damage by fire the moneys payable under any such insurance shall be received and retained by the Minister until the works are finally completed, and shall then be credited to the Contractor in the final settlement of accounts in the event of the Contract not having been previously cancelled under these Conditions.

## Time of Completion, &amp;c.

34. The Contractor shall complete the whole of the works comprised in this Contract within ten weeks from the date of the acceptance of his Tender, and in the event of their non-completion at the specified times, should the Minister not have proceeded under clauses Nos. 31 and 32 of these Conditions, or either of them, the Contractor shall pay, by way of liquidated damages, and not as or in the nature of a penalty, the sum of one pound ten shillings sterling for every week, or for every part of a week that shall elapse after such specified time, until their completion, and which sum or sums may be deducted from any money payable to the Contractor under this or any other Contract. The Contractor shall have no right to a Certificate for payment after the date specified in these Conditions for the completion of this Contract until the whole of the works shall have been properly completed to the satisfaction of the Engineer, unless the time for the completion of this Contract shall have been extended as hereinbefore provided, in which case such extended time shall become the time for the completion of this Contract, and it is to be expressly understood that the fact of the time having been so extended shall not in any way be taken as a waiver of this Contract, or as annulling or setting aside this Contract in any respect, nor be taken as releasing the Contractor from any of the responsibilities or obligations of this Contract, which, in all other respects, shall remain the same as if the time had not been extended.

The like liability also shall hold good as to the obligation of the Contractor in the event of any advance being made to him from the retention money, or on material on the ground and not *in situ*.

## Maintenance.

35. The Contractor will be bound to maintain the works for a period of one week after their final completion and use by the Government; and if any part should within that period show signs of weakness, or of giving way, or if any defective workmanship or materials be detected, the Contractor, when called upon to do so, shall make good the same at his own expense, to the satisfaction of the Engineer, before any moneys held by the Government on account of this Contract will be paid. It is also to be distinctly understood that the Government shall have the full, free, and unrestricted use of the said works, without any interference whatever on the part of the Contractor during the currency of this period of maintenance; and such use of the said works on the part of the Government shall not be held as relieving the Contractor of any liabilities or obligations whatever in respect of his Contract.

## Settlement of Claims.

36. The following matters shall be decided by the Engineer, whose decision shall be absolute and final, viz. :—

- (1). All questions and disputes when the net claim shall not amount to the sum of £1,000.
- (2). All questions and disputes (irrespective of the amount involved), which shall arise respecting the true construction or meaning of the Plans, Specification or Schedule to Specification; or the quality or sufficiency of the workmanship; or the quantity, quality, or sufficiency of materials necessary for the whole or any part of the Contract; or the true value of any extra works that have not been previously agreed upon; or the value of any works omitted from the works specified to be done under the Contract.

37. Where the amount of any net claim in respect of any matter relating to the said Contract (other than and excepting those mentioned in class 2 of the last preceding clause) shall amount to the sum of £1,000 or upwards the Contractor shall within one month from the date of the expiration of the period of maintenance referred to in clause 35 furnish to the Engineer "full particulars" in writing of any such claim, giving distinct and separate items and the amount, if any, claimed under each item, and the same may be accompanied by any such explanatory matter as the Contractor may consider necessary. The Contractor shall be bound by such particulars, and no claim not included in such particulars shall be taken into consideration or become the subject of any action. All such claims amounting to £1,000 or upwards shall in the first instance be referred to and decided by the Engineer, and if the Contractor and the Engineer cannot agree upon the amount to be paid in respect of such claims the Contractor shall then be allowed to appeal to the Minister, who shall refer the matter for the consideration of and final adjudication by the Board, whose decision shall be final when so expressed by the said Board to be final, and the Contractor shall have no right of action or suit under the Contract or these conditions for or in respect of any such claims, saving for the amounts that may be so certified to be due. Provided always that if, in cases where the said Board shall not arrive at and make a final decision, the Contractor may require the Minister to state, and he shall state a special case without any pleadings for the opinion and final decision of the Supreme Court with power to the Judges upon the hearing thereof to draw conclusions of fact and to review, and vary, or refer back the claim to the Minister; but in case of any such special case being so stated the taxed costs of both parties incidental thereto shall be borne by and divided between them respectively in the inverse proportion which the amounts actually awarded and disallowed respectively shall bear to the total amount in dispute, and no action, suit, or other proceeding shall be instituted in respect of the premises, except for the purpose of enabling such special case to be stated as aforesaid.

The Minister shall not be called upon or be bound to make any payments out of the retention money or the money deposited as security for the due carrying out of the Contract, or to give up any bond that may have been given or entered into in connection with the Contract before or until all questions and disputes shall be finally settled; and should the Minister in his discretion make any payments out of the retention or deposit money to the Contractor, the making the same shall not in any way prejudice the Minister's rights under the Contract, or be taken as an admission of any claims made by the Contractor.

Department of Public Works,  
Sydney, New South Wales, 23rd March, 1898.

J. H. YOUNG,  
Secretary for Public Works.

THESE are the General Conditions marked "F" referred to in my annexed Agreement with Her Majesty the Queen, date the twenty-seventh day of March, A.D. 1899.

Witness—W. C. ADAMS.

THOMAS MURPHY.

## G.

## LUMP SUM TENDER FORM.

CONTRACT No. 54-98-9, ROAD CUMNOCK TO BOLDERGERY.

I, the undersigned, do hereby tender to provide the material and perform the various works required in and about the full and proper construction, erection, and completion of Contract No. 54-98-9, on road Cumnock to Boldroger, agreeably to the Plans, Specification, Schedule to Specification, and General Conditions, which have been inspected by \_\_\_\_\_, for the lump sum of one hundred and eighty-nine pounds, and to complete the same within the time stated in the said General Conditions; and \_\_\_\_\_ do hereby agree that any additions to or deductions from the said works shall be paid or allowed for, as the case may be, at and after the rates or prices mentioned in the Schedule of Prices endorsed hereon, or if not in Schedule at a price to be agreed upon at the time, and added to or deducted from the above lump sum, as the case may be; and \_\_\_\_\_

and hereby undertake that will, within fourteen days from the date of notification of the acceptance of the said Tender, execute and deliver to the Minister for Public Works a valid legal contract with Her Majesty the Queen, embodying the terms and conditions abovementioned.

Dated this 16th day of March, A.D. 1899.

THOMAS MURPHY,  
Anson-street, Orange.

This is the Tender, marked "G," referred to in my annexed agreement with Her Majesty the Queen, dated the twenty-seventh day of March, A.D. 1899.

Witness—W. C. ADAMS.

THOMAS MURPHY.

#### NOTICE TO TENDERERS.

When two or more persons send in a joint Tender, the name of each must be set forth therein; and all names must be written in full. Tenderer's address to be clearly stated.

A separate Tender must be sent in for each Contract under separate cover, with number of Contract endorsed thereon.

As soon as the Tenders shall have been opened, and the bulk sums of each ascertained, the lowest eligible Tenderer shall be called upon to pay a minimum deposit of £2 if the Tender be £40 or under, or a sum representing 5 per cent. on the pounds in Tenders over £40 and under £200, before his Tender can be recommended. On all Tenders of £200 and over, the security required will be that provided for in clause 29 of the General Conditions, viz., £5 for every £100 or part of £100. In the event of Tenderer refusing or neglecting within seven days from date of opening Tenders to pay this deposit he will be liable to disqualification from further tendering. If the next Tender is considered suitable, the work may be offered to him, and so on as long as the local officer considers the Tenders to be of such a nature as he would be justified in recommending.

In the event of a Tenderer refusing to take up his Contract, or the Contract being cancelled, his deposit will be forfeited to the Government of New South Wales, and will be paid to the credit of the Consolidated Revenue. The deposit will be returned when the final certificate has been forwarded for payment.

No Tender will be considered which shall have been received after the advertised time for the receipt of Tenders, unless there are valid reasons which render it equitable that it should be entertained.

This is the Schedule of Prices hereinafter referred to:—

Schedule Number.	Nature of Work.	Schedule Rates for Additions or Deductions.	
1	Clearing road, 66 wide .....	per lineal chain	£ s. d.
2	Forming, including cutting and filling ..	per lineal yard	0 8 0 48 chains.
3	Side drains .....	per lineal chain	0 2 5 1,061 l. y.
4	Metal gauge .....	per cubic yard	0 6 6 48 chains.
5	Metal gauge .....	per cubic yard	.....
6	Gravel gauge .....	per cubic yard	.....
7	Gravel, screened gauge .....	per cubic yard	.....
8	Blinding .....	per lineal yard	.....
9	Rolling, complete .....	per lineal chain	.....
10	1st class culverts .....	each	.....
11	2nd do do .....	each	.....
12	3rd do do .....	each	.....
13	4th do do .....	each	.....
14	5th do do .....	each	12 0 0 1 5th.
15	Box culverts .....	each	.....
16	Pipe culverts, including stone heads, 4 .....	each	3 0 0 4
17	Do do timber heads .....	each	.....
18	1st class causeways .....	each	1 19 11
19	2nd do do .....	each	.....
20	3rd do do .....	each	.....
21	Ordnance fencing, type A .....	per lineal foot	.....
22	Do do type B .....	per lineal foot	.....
23	Split fencing, type A .....	per rod	.....
24	Do type B .....	per rod	.....
25	Providing for traffic .....	bulk	.....

NOTE.—Schedule rates only to be given on this side and not the bulk sum, and no quantities to be inserted, it being understood that the bulk sum covers all the work specified.

Contractors are not to fill in nor sign endorsement when tendering.

This is the Schedule of Prices referred to in my annexed agreement with Her Majesty the Queen, dated the twenty-seventh day of March, A.D. 1899.

Witness—W. C. ADAMS.

THOMAS MURPHY.

#### H.

Sir, Department of Public Works, District Engineer's Office, 27 March, 1899.

I have the honor to inform you that your Tender, dated the sixteenth day of March, 1899, is accepted for Road Contract, No. 54-98, on road, Cumnock to Bolderogery, at the sum of one hundred and eighty-nine pounds. The work to be carried out in strict accordance with the several Contract exhibits relating to this Contract, and to be completed within ten weeks from this date.

You will please call at this office for the purpose of signing the necessary agreement for the due observance of your Contract.

I am, &c.,

A. W. STILWELL.

To Mr. Thomas Murphy, Contractor, Anson-street, Orange.

This is the Copy Letter of Acceptance marked "H" referred to in my annexed agreement with Her Majesty the Queen, dated the twenty-seventh day of March, 1899.

Witness—

W. C. ADAMS.

THOMAS MURPHY.

[Four Plans.]



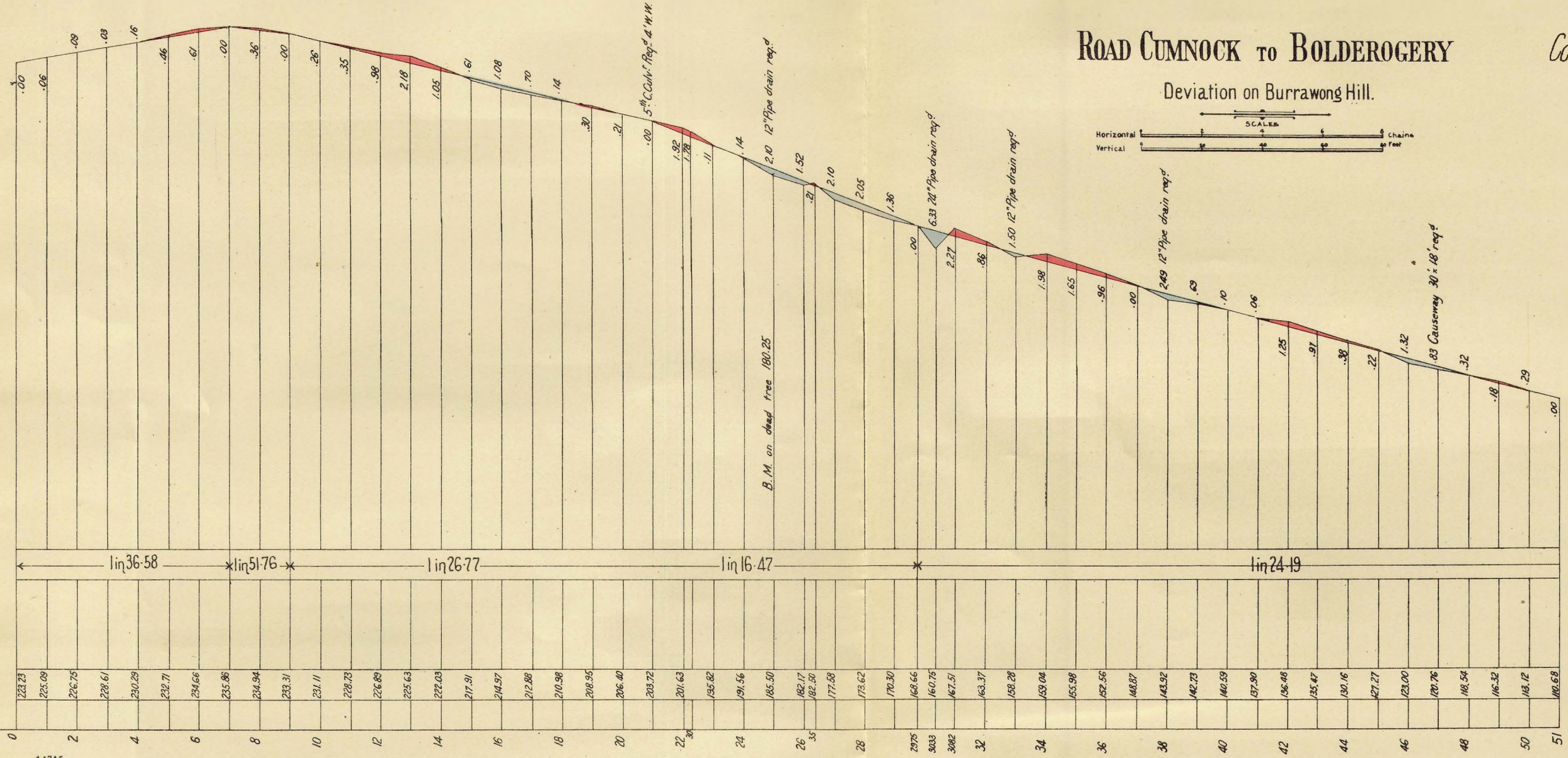


# ROAD CUMNOCK TO BOLDEROGERY

Con: 54989

Deviation on Burrawong Hill.

Plan 'A'



This is the Plan marked 'A' referred to in my annexed agreement with Her Majesty the Queen dated the 27<sup>th</sup> day of March, A.D. 1899.  
Witness: *Thomas Grunthly*  
*W. Williams*

Photo-lithographed by  
W. A. Gullich, Government Printer,  
Sydney, N.S.W.

44745  
s. 539

DEPARTMENT OF PUBLIC WORKS

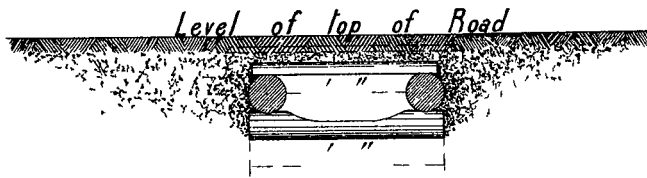
5<sup>th</sup> Class Culvert

CONTRACT 54/98-9.

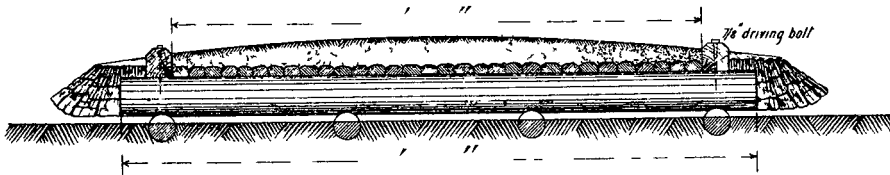
*W. J. Richards*  
Under Secretary  
& Commissioner for Roads

PLAN B

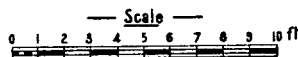
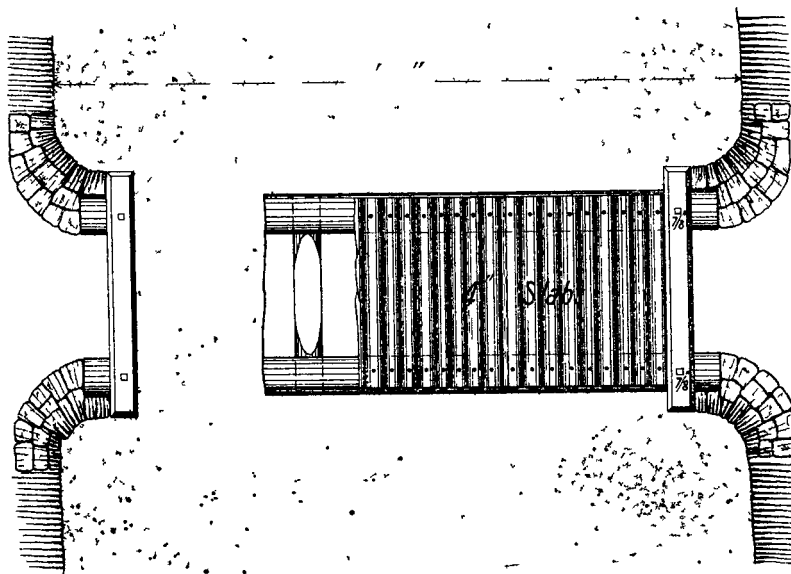
— Longitudinal Section —



— Transverse Section —



— Plan —



This is the Plan marked B referred to in my annexed }  
agreement with Her Majesty the Queen, dated the 27th }  
day of March, A.D. 1899.

44745

Witness:

*W. J. Richards*

*Thomas Drury*

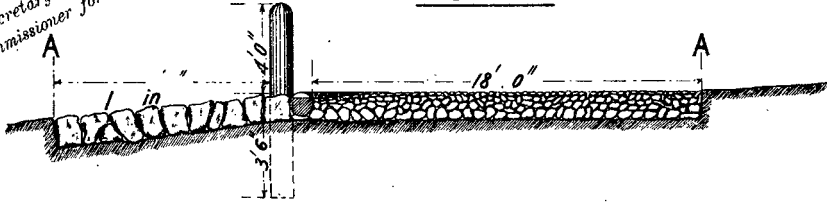
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W A Gullick Government Printer  
Sydney N.S.W.

# First Class Stone Causeway

CONTRACT  
54/98-9.

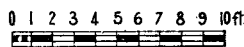
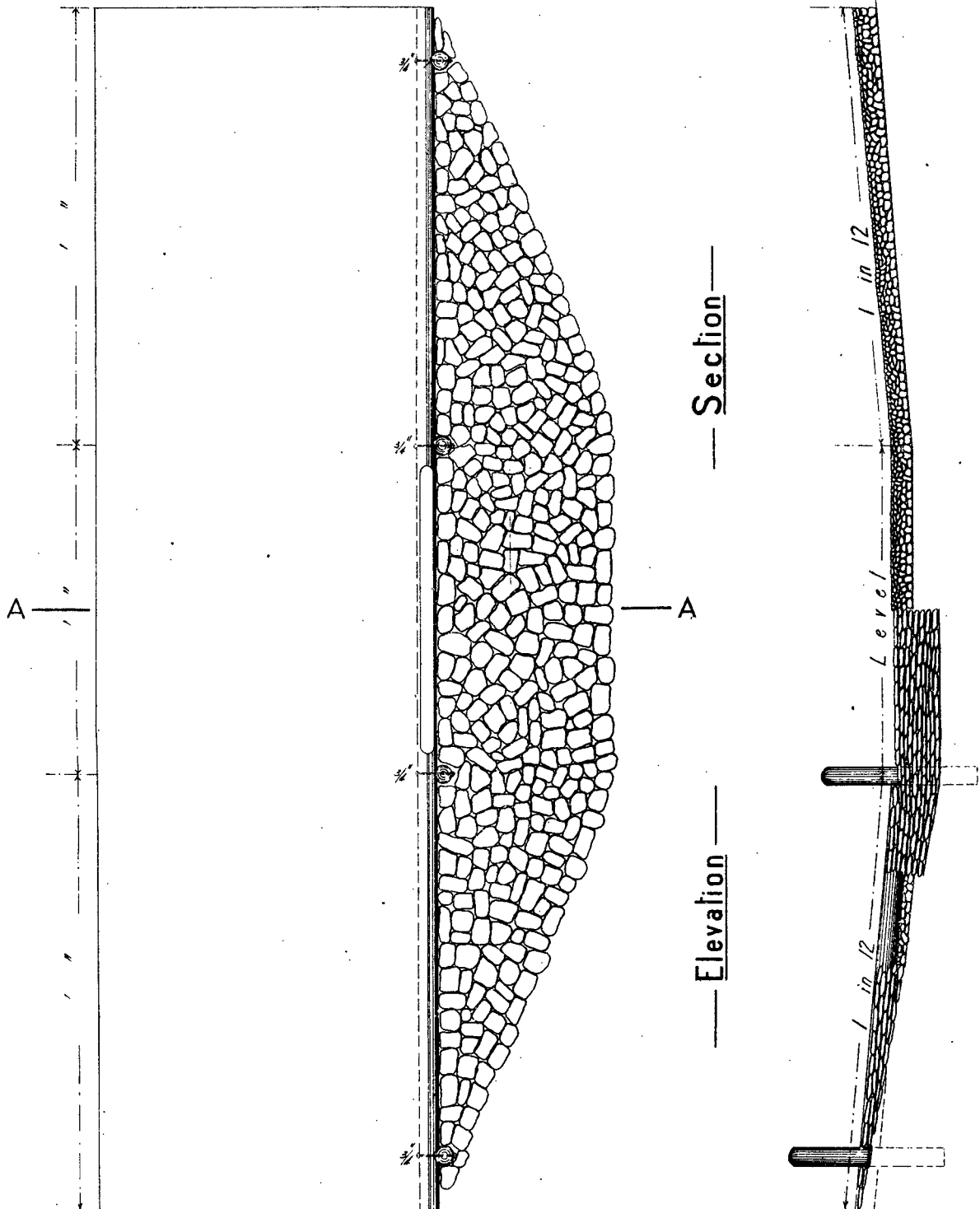
*W. H. Richards*  
Under Secretary  
& Commissioner for Roads.

— Section —



PLAN C

— Plan —



This is the Plan marked C referred to in my annexed }  
agreement with Her Majesty the Queen, dated the 29th }  
day of March, A.D. 1899.

Witness:

*W. Adams*

*Thomas Murphy*

# PROPOSED DEVIATION AT BURRAWONG HILL.

## ROAD CUMNOCK TO BOLDEROGERY

Parish of Burrawong, Co. of Gordon

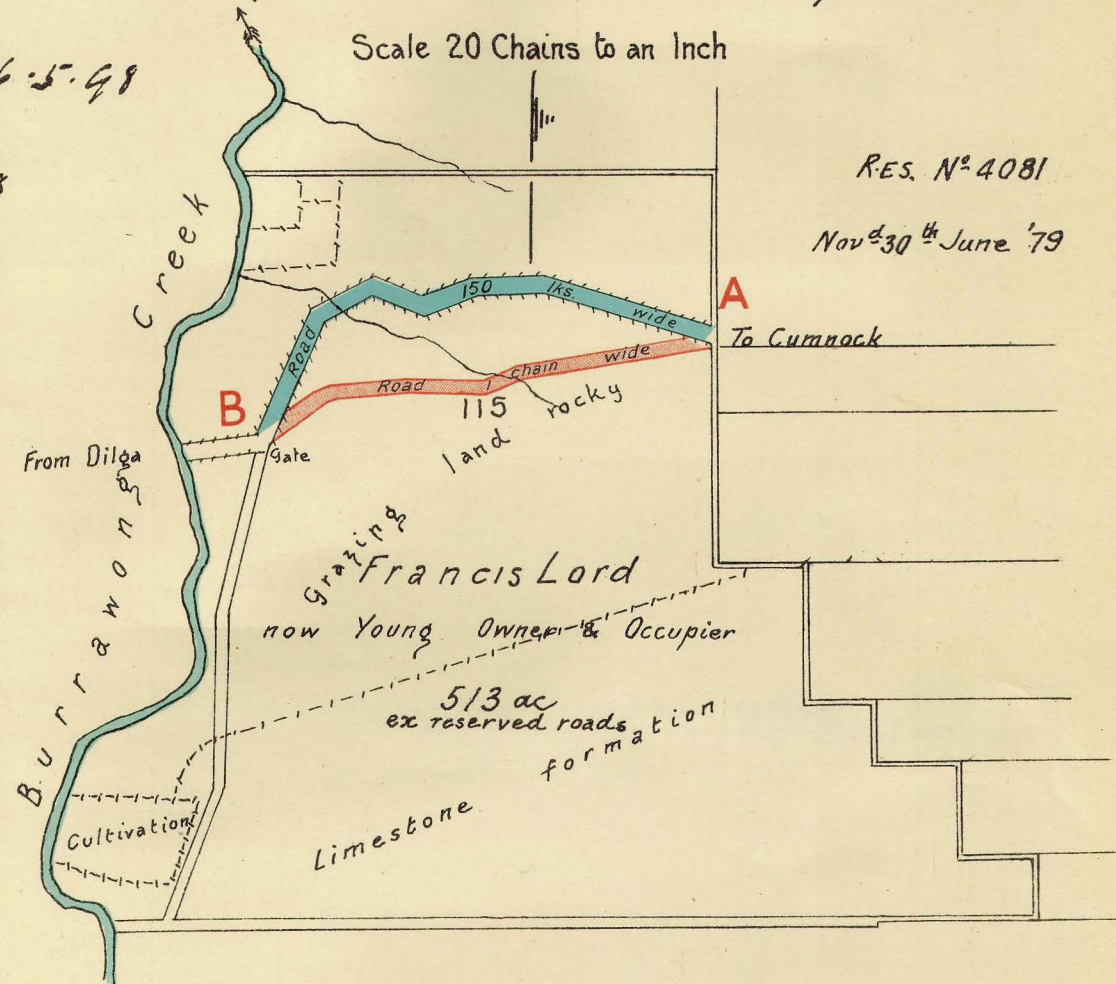
To accompany Report of 6.5.98

Ans.  
12.5.98

### SKETCH PLAN

(PROPOSED ROAD TINTED RED)

Scale 20 Chains to an Inch

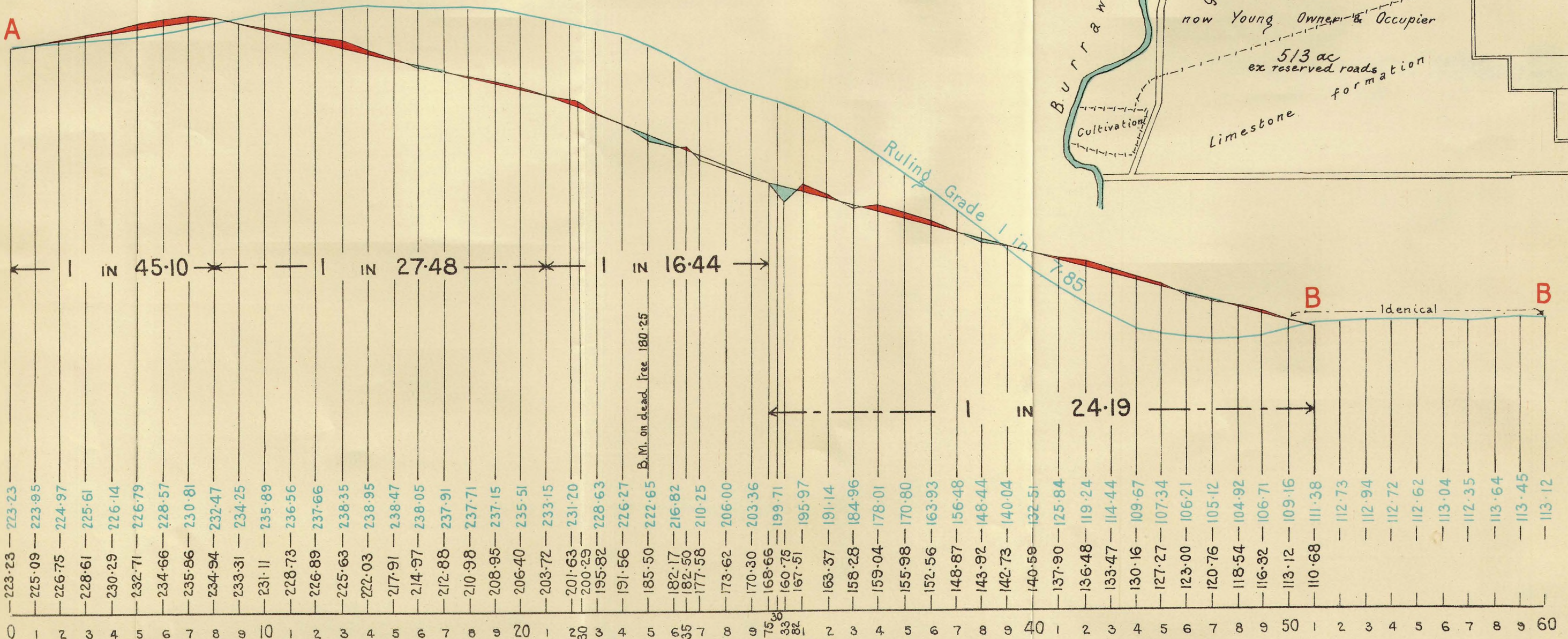


RES. N<sup>o</sup> 4081

Nov<sup>r</sup> 30<sup>th</sup> June '79

### SECTIONS (PRESENT ROAD SHOWN IN BLUE)

Scales { Horizontal 4 Chains to an Inch  
Vertical 40 Feet to an Inch



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

NEW ROAD AT BURRAWONG OLD STATION, DISTRICT  
OF MOLONG.

(RETURN RESPECTING.)

*Printed under No. 12 Report from Printing Committee, 30 November, 1899.*

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 20th April, 1899, That there be laid upon the Table of this House,—

“All papers since the year 1881 in reference to the alteration and construction of the new road that is now being carried out at Burrawong Old Station, in the District of Molong.”

*(Dr. Ross.)*

## SCHEDULE.

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## NEW ROAD AT BURRAWONG OLD STATION, DISTRICT OF MOLONG.

No. 1.

William Ross, Esq., to The Surveyor-General.

Dear Sir,

Dilga, Molong, 21 December, 1882.

I again beg to bring under your notice my letter in the *Molong Express* paper of 17th June last, viz., Road Grievance, Lord *v.* Ross.

I now tax Mr. Surveyor Busby's veracity on his report regarding the various roads referred to; see to this at once—bearing in mind Surveyor Simpson's act, Lord *v.* Clyne.

Yours, &c.,  
WM. ROSS.

To see papers referred to.—P.F.A., 27. Roads 82-<sup>1</sup>/<sub>2</sub><sup>2</sup>. Sent to Surveyor Crouch, 5/10/82, No. 520. Transferred to Licensed Surveyor Busby, 6/10/82. Still unacted on, 27/12/82. Surveyor-General.—Perhaps this should be sent to Mr. Crouch with reference to previous instructions.—J.F.L., 27/12/82. It was a copy of the newspaper I wished to see; also I wished to see Mr. Busby, who is in town.—P.F.A., 30. Memo. sent to Mr. Busby to call, 30/12/82. Mr. Christie,—Please obtain copy of paper referred to.—J.F.L., 30.

Notwithstanding the protest of Mr. Wm. Ross, I do not see any ground for altering my previous recommendation in this case. Mr. Wm. Ross does not state in what respect he questions the veracity of Mr. Surveyor Busby, but even if the road advocated by Mr. Ross were a better as well as a shorter road, I do not consider that sufficient cause has been shown why the Government should establish, by proclamation under 4 William IV No. II, the deviation in question to the prejudice of the owner of the property traversed by the proposed deviation.—P. F. ADAMS, 8th January, 1883.

Submitted.—H.W., 16/1/83.

In view of the report of the Surveyor-General, I cannot reopen this question. I noticed, in a petition signed by Mr. W. Ross and others, an assertion that the road asked for by them has been "in use by the public for a number of years." If this is the case, the public can assert their right to the road in question, and force an opening if they require it. Mr. Ross may be informed.—J. P. ABBOTT, 16/1/83. A. Ross, M.D., M.P., informed 19th January, 1883.

[Enclosure.]

EXTRACT from the *Molong Express*, Monday, 17 June, 1882.Road Grievance—Lord *v.* Ross.

To the Editor.

Sir,

The following case was tried before the Molong Bench on the 6th instant, after a very prolonged hearing. I am charged with having wilfully and maliciously cut down a certain fence, which was erected by plaintiff's servants across a public road, without just cause or reason. I will not only point out in the sequel both cause and reason, but show also that I had more valid reasons for doing so than parties had in trying to insinuate "that for all the difference it would make in the distance between the two distinct points it was unneighbourly on my part to do so." But that extra mile per day (to and fro), and that six days in the week, amounts to a good round distance of unnecessary travelling in the course of a year. Persons will bear in mind that, to obtain my mail-bag, I have to travel the road to and from Dilga to Cumnock, *via* Burrawong, and, therefore, I am made to suffer should the road happen to be diverted from its present track. I may have, in an unguarded moment, answered in haste the absurd way in which plaintiff's solicitor put a question regarding pegs. It was the fence, which is near the culvert, lately put up that I thought of when pegs, fence, and roads was the question asked, and which led me to make the slight mistake I did, but which I subsequently corrected and explained, and that ought to have satisfied any man but those who might possibly wish to row in the same boat. Whether I am the aggressor it matters not, for the question involves a deeper principle than this, viz., a "public right-of-way"; and I will be able to show, in spite of plaintiff's witness, that it has been in existence and use for many a long year—aye, as far back as 1847. I may even yet find out that the very public wrong that I am now striving to prevent in this road grievance that, perhaps, others may possibly be doing the same thing, so that they may establish a precedent or helper in their own cause. It is, I admit, easy to see through a grindstone when the hole is bored. So it is with this road matter, as I will, I daresay, show before finished. One thing I am proud of, and that is that the P.M. is of the same opinion now that he was years ago in regard to what constituted a road. But as for me not bringing witnesses, that arose from the shortness of notice, seeing that I was served with the summons at sundown on the 3rd, and the case came off on the 6th, or only two days. Neither did I imagine that I would be called as a witness, judging by my solicitor's former advice and experience.

Now, as regards the various roads in that locality where the fence is being erected, and now cut down, bear in mind, Mr. Editor, that all the plaintiff's witnesses swore that they never saw, or yet heard of, any other road in that locality but the one in question, and that one went to Burrawong House. Strange to say, not one of them could, or would, tell which way it passed the house in former years, whether west or north, even though the plaintiff's manager was actually born in the house now standing—about thirty-four years ago, may be thirty-five to forty years—and yet, remarkable to say, he knows during all these number of years of no other road and never saw any in that locality but the one to Burrawong. He knows it to Burrawong door, and there he loses it. He does not even know of any other road that once led to the far-famed Burrawong Copper Mine, or yet to any of his neighbours' selections in that quarter. A late manager, Mr. George Bruce, who also was off and on engaged on Burrawong for fourteen years, and has known the locality for twenty-six years, yet how wonderful some people's memory fail them in adversity. Sam Hillan also knows the locality twenty-two years—his age in all being 30 (?) years, and odd years, like Mr. Keays. Mr. Hillan has only lived about seven years in the locality, yet he also knows of no other road to Burrawong House, only over and down a steep hill, far less even to get there or elsewhere when there. Another witness, James McCormack, says he has lived off and on in the locality twelve or fourteen years, aye, and although living on Jenkins' selection for years, and which is near the crossing on this road, has never seen and knows of no other road in that neighbourhood only the one from Cumnock to Burrawong, no, not even the road that leads to the Burrawong Copper Mine, a mine not easily to be forgotten if once seen, far less smelt. Yes, and this very mine is within 200 or 300 yards of where he (McCormack) lived on Jenkins' selection. Last, but not least, of plaintiff's witnesses is the

man

man who is erecting a fence. He also has lived in the locality for two or three years, and in this short time, compared with other witnesses, he has at least seen one road, one other road than that only remarkable road to Burrawong House, but where it leads to he could not say. So much for the plain truth to a plain question. In spite of all these witnesses I will show that there are other roads in the locality, roads, in fact, in existence ever since white man first put foot on Burrawong. For he remembered that the original station is 1 mile south of the present Burrawong, therefore there must have been roads in the locality, and which, if not travelled daily, are still plainly to be seen even to where they divert in various directions. Yes, and before the present Burrawong House ever was thought of, and I am prepared to state that each and all of these roads are less or more travelled on by the public to this day. If not so, how is it possible for settlers to get in and out from their farms without the existence of roads? Some of the first selections are to be found adjoining the old Burrawong Station. But I will furnish later proof than this, viz., when James Gallagher took up an additional conditional purchase on original Burrawong, Mr. Lord, by hook or crook, worried Gallagher, until he lost it, by getting the land measured, then put to auction, when, it is supposed, Lord bought. To enable Mr. Lord to do this, one (and the principal reason) was that one of these roads, which four witnesses on the 6th swore they never saw or knew of, was that Mr. Gallagher could and would not be allowed to take up his additional conditional purchase because "there was the very road between them." Yet, in the face of this, witnesses swear they don't know of this road, or, perhaps, of such a transaction of how Gallagher lost the land. Messrs. Keays, Bruce, Hillan, and McCormack swore that they knew of no direct road by way of the Burrawong Copper Mine from Gallagher's selection—from the original Burrawong to Cumnock, and where Gallagher had other selections on which he kept an inn for years, and travelled to and fro, between his selection at original Burrawong and his inn at Cumnock, on this very identical road, aye, without ever dreaming of going down the break-neck perpendicular hill or road in front of Burrawong House. The road Gallagher travelled is better, nearer, and more direct, besides being used by travellers and teamsters who had no particular business to transact at Burrawong. About the year 1869 what with fences and the crossing of the Burrawong Creek near Gallagher's becoming all but impossible. I may say that this public thoroughfare or right-of-way had been in daily use, to my own knowledge, since 1858, and perhaps was in use when the original Burrawong was taken up by Mr. Bonner. What with fences and the bad crossing-place, I took the trouble to write to the then Member, the late Mr. George Lord, especially on the state of this very road, and Mr. Bennett, of the Roads Department, instructed Superintendent Gordon, of Orange, to see and put the road in a proper state of repair, so that residents westerly might be able to travel it. Mr. Gordon, in consequence, visited the locality, and the present culvert was then pegged out on both sides of the creek—no thanks to the then Burrawong super. or storekeeper, however, who were so rude and insolent to Mr. Gordon that he left in disgust, after having marked out the length and width of the culvert. The Burrawong people rendered him no assistance, not even the use of a tomahawk—the pegs being made with a knife the best way we could. Then taking a comparison of the various roads in use, to see which was the best and nearest to the main road at Cumnock, and which he (Mr. Gordon) rode over to see for himself, and is the one road or very identical track which is now being fenced across, and which I complain of, and which I cut down, being a public road. I may remark that as we left the Burrawong storekeeper, in a very bombastic way he told Mr. Gordon that "he did not care where he made the road or culvert, as he would not remain much longer on the station—in fact, he was about leaving." "But," says he, "from what he knew, he (Mr. Gordon) had better keep the road or culvert up at Gallagher's farm," where it then was. After inspecting the various roads and the creeks from Burrawong to Gallagher's farm, a distance of over 1 mile, Mr. Gordon came to the very wise conclusion to retain the culvert where it is, and which has not cost a farthing for repairs since, and is, in fact, as good and sound as the day it was completed under Mr. Gordon's instructions, now going on twelve years since. The road Mr. Gordon rode over was plain enough and did not want making, as the traffic on the road made it plain enough and a good road to travel on, and requiring no repairs for perhaps years. I call such a road an outlet to all farms and settlers westerly from Burrawong, a splendid road compared with the Burrawong road, which is nearly perpendicular and almost impossible to climb it, or yet to reach the main road at Cumnock by this way. It is all very well for the P.M. and Mr. Smith to say the hill can be climbed, but one may as well attempt to climb the steeple of a church as to get up with a load anywhere, but I say no, for Gordon's road has no hills to climb, and, therefore, it shows a strange feature of the exact nature of this hill or road, or I am not to be believed.

From these remarks I am right, I think, in maintaining that the road selected by Mr. Gordon is by far the best in every sense, and considerably the shortest for the travelling public, and which is well known gradually rises from the culvert in the creek until it reaches the top of the hill and without difficulty. And thus why I cut the fence down and insist on Gordon's road being retained, being the nearest and best for man and beast, horsemen, or teamsters. A merciful man, it is said, is merciful to his beast. Not so with the P.M. or Mr. Smith, for they advocate that the Steeple Hill should be travelled; but I ask them to try it, then they will find out right from wrong, or whether I am insisting on an honest claim or a sham. It is "public rights" that must be considered, and not the private interest of Burrawong people in dealing with this road grievance. An inspection of the two roads by any impartial, unprejudiced person would unhesitatingly decide in favour of Gordon's road. If it is difficult to get up the hill, it is equally difficult to get down. The proof of the pudding is in the eating; then let anyone try the experiment, and he will have no difficulty in realising the truth of my assertion and statement, that to retain the Steeple Hill road it would be a gross and glaring wrong and injustice to the public for all time to come. I am not the only individual who is irreluctantly compelled to cut down an obstructing fence at Burrawong, for as far back as 1849, the same thing was done by Surveyor Davidson (afterwards Surveyor-General), who also cut down a fence near Burrawong, the fence being erected on the west side of the Burrawong Creek, aye, the sliprails had to be put up at the place cut down so as to enable the public to travel north and south, as they thought proper,—the creek for many miles below Burrawong being all but impassable for drays, and still remains so to this day. This road which I now allude to has much to do with that part of the road down Burrawong Steeple Hill, even before Burrawong House was moved to where it now stands, and then, in 1858, when the crossing became impassable in the creek for teams, the traffic returned up, or south, of old Burrawong Station, and the road is yet plainly to be seen where it passes through lands afterwards selected by James Gallagher, then it crosses the creek behind old Burrawong cultivation paddock, coming out round this fence to the north, about 1 mile south of the present Burrawong House, thence up a gentle rise of the range of the hill (Gordon's road), previously alluded to, until it reaches the main road to Cumnock. No travellers or teams going to Molong east, south, or south-east, even going north 1 mile simply to see Burrawong House, or yet for the pleasure of climbing up the steep hill when it can be avoided by travelling the old, better, and shorter road. Many teams soon after getting round north of the old cultivation paddock turn south on to the Brymedura road for a few yards, then south-east near Jenkins' selection, on which Mr. McCormack, one of plaintiff's witnesses, lived for years; then, as stated, it goes south-east, on to Messrs. Bolton's Doyboy Flat Station, and from this onwards to the main road to Molong by way of Bolton's ration road (the latter part of this line to main road being nearly east); others, again, keep south-east on Kinchila's Redbank Station road, until they come to Sandy Camp saw-pit; thence easterly, crossing Redbank or Nora Creek near a road going to Molong, and Orange roads to Molong. From these facts, it is evident that there are not only other and better roads to Molong than the "one solitary extraordinary road" going up and down Burrawong Steeple Hill. I could name and describe other roads in the locality. Suffice to say, I have said enough to show a discerning public the right road from the wrong—the road, in fact, most suitable for and in the interests of settlers in the neighbourhood and the travelling public. I may as well say that I keep no joeys or horn-blowers, nor do I even send my dog where I cannot go myself.

In conclusion, I earnestly trust the Government will see justice done to selectors and settlers in these all-important road matters and grievances, so that better provision may be made to enable farmers to get to and fro to their selections, in place of being often harassed and annoyed without rhyme or reason, or, perhaps, merely to suit some antagonistic individual interest. Apologising for trespassing on your valuable space—

Let each man learn to know himself,  
To gain that knowledge let him labour;  
Improve those failings in himself,  
Which he condemns so in his neighbour.

Dilga, near Molong,  
13th June, 1882.

Yours, &c.,  
WILLIAM ROSS.

## No. 2.

Messrs. H. H. Brown &amp; Co. to The Under Secretary for Mines.

Sir, 21, Exchange Buildings, Pitt-street, 4 January, 1883.

We have the honor to request, on behalf of our client, Mr. Francis Lord, that you will be pleased to cause to be proclaimed in the *Gazette* the road from Cumnock, *via* Burrawong and Dilga, to Parkes. This road only in parts is through measured portions, and as it is most important for legal rights of our client that this road should be proclaimed, we beg that the matter may have early attention.

We have, &amp;c.,

H. H. BROWN & CO.,  
Agents for Hon. F. Lord.

The Surveyor-General.—G.E.H. (for the Under Secretary), B.C., 5/1/83.

## No. 3.

The Under Secretary for Mines to Andrew Ross, Esq., M.D., M.P.

Sir, Department of Mines, Sydney, 19 January, 1883.

Referring to your letters and the petition of Mr. William Ross, Wright, Heaton, & Co., and others, respecting the opening of a road in the vicinity of Burrawong, I am directed by the Secretary for Mines to inform you that no departure can be made from the decision conveyed to you in my letter of the 14th September last, but should the assertion made by the petitioners, that the road has been in use for a number of years, be the case, the public may have a right to the road and fence an opening if they require it.

I have, &amp;c.,

HARRIE WOOD,  
Under Secretary.

## No. 4.

Andrew Ross, Esq., M.D., M.P., to The Honorable the Minister for Mines.

Sir, Parliament House, Sydney, 24 January, 1883.

I again desire to draw your attention to the road question between Cumnock and Rocky Ponds, at Burrawong, and to draw your special attention to the printed correspondence in the matter, which was moved for in Parliament. The residents (by the correspondence) we perceive, to the number of nearly fifty, protest against the present road as being too steep and hilly; in fact, almost impossible to get up and down with heavy loads. Another feature in the matter is that no objection has been lodged to the road but the report of the Surveyor, and he, being a total stranger to the locality and district, can really know nothing of the case. Whereas the petition protesting against the road going up the hill is signed by influential men and the farmers in the neighbourhood. I do hope, therefore, that you will see the necessity of reconsidering your opinion in this most important case, so that public justice may be done in the matter.

By referring to the printed correspondence you will find what I have stated to be the truth and facts of the case.

I have, &amp;c.,

A. ROSS.

I shall be pleased if the District Surveyor will make a personal inspection of the two roads, and let me have his report. Mr. Ross may be informed that I have called for this.—J. P. ABBOTT, 27/1/83. A. Ross, M.P., informed, 31/1/83. Parish Burrawong, county Gordon, papers herewith. The Surveyor-General.—G.E.H. (for the Under Secretary), B.C., 1/2/83. Mr. District Surveyor Crouch, for report as directed by the Minister for Mines.—A. J. STOPPS (for Surveyor-General), 6/2/83. Report of the 9th July, 83-94, dealing with above herewith.—H. A. CROUCH, Acting District Surveyor.

## No. 5.

The Under Secretary for Mines to Andrew Ross, Esq., M.D., M.P.

Sir, Department of Mines, Sydney, 31 January, 1883.

With reference to your letter of the 24th instant, respecting the road between Cumnock and Rocky Ponds, at Burrawong, I am directed by the Secretary for Mines to inform you that he has requested that the District Surveyor be asked to make a personal inspection of the two roads and furnish a report on them.

I have, &amp;c.,

HARRIE WOOD,  
Under Secretary.

## No. 5½.

Office Memorandum.

6 February, 1883.

WHEN Mr. District Surveyor Crouch is visiting the roads at Burrawong, Cumnock, Dilga, and Baldarudgerly, I shall be glad if he will call on Mr. William Ross, of Dilga, also Mr. Carter, of Baldarudgerly.

J. P. ABBOTT.

The Surveyor-General.—H.W., B.C., 6/2/83.



## No. 6.

Andrew Ross, Esq., M.D., M.P., to The Honorable the Minister for Mines.

Sir,

Parliament House, Sydney, 13 April, 1883.

I do myself the honor to ask if any report has been received *re* road at Burrawong, near Molong, and which is now obstructed by a fence. You will remember that several weeks back you authorised Mr. Crouch, Acting District Surveyor at Orange, to report on the matter. If the report has not reached your office, I shall be glad if you will take the necessary steps to expedite the same, so that I may be enabled to communicate the information the report contains to the public, and who are at present suffering from the destruction to the road.

I have, &c.,  
A. ROSS.

Will the Surveyor-General please say?—G.E.H. (for the Under Secretary). The Surveyor-General, B.C., 14/4/83. The District Surveyor's report has not yet been received. On return of this paper from Mines, it will be sent to him in connection with his instructions.—A. J. STOPPS (for Surveyor-General), 15th May, 1883. Inform.—G.E.H. (for the Under Secretary), 17/5/83. Dr. Ross, M.P., informed, 17th May, 1883. The Surveyor-General.—G.E.H. (for Under Secretary), B.C., 18/5/83. Mr. H. A. Crouch, Acting District Surveyor, in connection with instruction No. 98, of 8th February, 1883.—A. J. STOPPS (for Surveyor-General), 22nd May, 1883. Received in District Survey Office, 26/5/83. Reported upon by my letter of the 9th July, 83-94.—H. A. CROUCH, Acting District Surveyor.

## No. 7.

The Under Secretary for Mines to Andrew Ross, Esq., M.D., M.P.

Sir,

Department of Lands, Sydney, 17 May, 1883.

With reference to your letter of the 13th ultimo, inquiring whether any report has been received respecting a road at Burrawong, near Molong, which has been obstructed, I have the honor to inform you that the District Surveyor's report has not yet been received, and your present letter will be sent to him in connection with his instructions.

I have, &c.,  
GERARD E. HERRING,  
Under Secretary.

## No. 8.

Mr. Acting Surveyor W. F. Busby to The Surveyor-General.

ACTING SURVEYOR W. F. BUSBY to the Surveyor-General, transmitting plan of levels of reserved road and track through portion No. 115, in the parish of Burrawong, county of Gordon.

No. 83-47.

Sir,

Camp, Molong, 19 June, 1883.

In accordance with verbal instructions from Mr. District Surveyor Crouch, I have the honor to transmit herewith plan showing levels taken of reserved road through portion No. 115, parish of Burrawong, county of Gordon; and of track sought to be opened in lieu thereof by William Ross. Plan herewith.

Both the reserved road and track were reported on by me with letter No. 82-15 of 15th June, but since that time the track in question has been improved by the horse traffic that has been upon it, and with the expenditure of a small sum of money in metalling and placing a culvert at the point shown on plan would be both shorter and easier for all kinds of traffic than the present reserved road.

In both cases the centre of the road has been taken at distances of 1 chain apart. Date of survey, 18th April.

I have, &c.,  
W. F. BUSBY.

Submitted in connection with my letter of the 9th July (83-94).—H. A. CROUCH, Acting District Surveyor.

## No. 9.

Mr. Acting District Surveyor H. A. Crouch to The Surveyor-General.

PARISH ROAD.—Mr. Acting District Surveyor H. A. Crouch to the Surveyor-General, reporting on road through portion No. 115, Francis Lord's 513 acres, parish of Burrawong, county of Gordon.

No. 83-94.

Sir,

District Survey Office, Orange, 9 July, 1883.

In accordance with your instructions of the 6th February (No. 83-98) relative to roads through portion No. 115, Francis Lord's 513 acres, parish of Burrawong, county of Gordon, I have the honor to state that on the 27th ultimo I inspected the road reserved through the portion and the one petitioned for to be opened in lieu, under the Act of Council 4 Wm. IV No. 11, and having interviewed Mr. Keay (manager for the Hon. F. Lord) and Mr. Wm. Ross, would respectfully report:—

2. That the subject is one which appears to have provoked a good deal of local feeling, and as a consequence the importance of decision has been unduly exaggerated.

3. As an evidence of this feeling, it may be mentioned that the wire fencing crossing the road petitioned for has been wilfully cut away, and although still left so, a trench has been cut in a small intersecting gully, and some trees felled, with the intent of rendering the track impracticable.

4. As it appears unnecessary to refer to the various erroneous statements, I therefore turn to the main point for consideration, viz., a comparison of the roads, by which a decision may be arrived at as to the better one for adoption.

5. As it was evident from the different statements made that the gradients of the two roads would be primary elements for attention, I requested Mr. Busby, when in the locality, to take the necessary levels; and this he effected, and plan is transmitted with his letter of the 19th June, 83-47, and in this report that plan will be used for reference.

6. The road reserved by Mr. Licensed-Surveyor Brock in the measurement of portion No. 115 follows generally a track on which the principal traffic has passed for many years. It passes over sound ground throughout, and in traversing westward follows a level spur till within about 50 chains of the Burrawong Creek, when it descends 133 feet in some 27 chains, the steepest grade being about 1 in 8·7 for 6 chains. This is the hill complained of. Mr. Busby shows the steepest grade as 1 in 11·68, but he has allowed for a cutting which is not likely to be undertaken on this road under any circumstances, whilst the rocky nature of the hill would also be an obstacle to such, if otherwise entertained.

7. As will be noted the grade is somewhat severe for heavy traffic, and it would be the more noticeable if the traffic were confined to the width of the road reserved. At the present time the land being open on the northern side, the track veers beyond such width. This difference is such that I consider, if the general direction of the reserved road is approved, a slight deviation for some 5 or 6 chains would be desirable to secure the better ascent.

8. Although, as stated, the gradient is somewhat severe, it is evident from the extent and length of time the road has been used that it has never been considered as a very serious obstacle.

9. The southern side of the reserved road has been fenced with a substantial split top-rail and five-wire fence, and part of the northern side at its western extremity, as shown on plan.

10. The road petitioned for by Mr. Wm. Ross and others diverges from the spur traversed by the reserved road, and follows the siding of another with a gentle slope. The general grade is much easier and the distance 9 chains shorter than the reserved road. It is intersected by a small gully at point A on plan, but such is of slight moment and could be made conveniently passable with a trifling cutting and a set of pipes. I think about 5 chains of this track would be boggy in very wet weather, but it must be pointed out that the heavy traffic, caused by wool and farm produce, does not pass in the winter months.

11. I am of opinion that this track would be traversed by any person with a loaded vehicle in preference to the other.

12. This track has every appearance of comparatively recent formation, and no satisfactory explanation can be given as to why it was not earlier adopted when the whole country was open.

13. Beyond the inconvenience and cost of removing fencing, &c., I am unable to perceive any injury that would be inflicted on Mr. Lord by the adoption of this road.

14. This cost I estimate as follows:—Removal and re-erection of 58 chains, at 2s. per rod, £23 4s.; erection of 1·75 chains (to correspond with portion of fence now on north side, less 9 chains saved by removal), at 5s. per rod, £1 15s.; total, £24 19s.

15. The road is important, as it forms part of the principal line of communication to the head of the Bogan River, Rocky Ponds, Dilga, Bolderogery, &c., with a branch line up the Burrawong Creek, and in my opinion the traffic is sufficient and of prospective increase to justify the above expenditure.

16. In view of the superiority of grade, and the saving in distance, I would respectfully recommend the adoption of the road sought by petitioners.

I have, &c.,

H. A. CROUCH,  
A.D.S.

#### No. 10.

#### The Surveyor-General to The Under Secretary for Mines.

DEVIATION of a road through Francis Lord's land, parish of Burrawong, county Gordon, sought by Wm. Ross and others.

27 July, 1883.

FURTHER investigation into the relative merits of the two roads shows that the track advocated by Dr. Ross, M.P., on behalf of applicants, is generally easier in grade, and shorter by (say) 200 yards than the established road, but these advantages are not so conspicuously great as to leave no hesitation of the propriety of adopting the track, in lieu of the road which was in use for many years before Mr. Lord's land was surveyed by the Crown for sale, which was reserved within that land, and has been fenced substantially by the owner; having in view also the fact that Mr. Lord objects to the substitution of one road for the other, and also that, from the extent of the traffic, and the length of time the road has been in use by the public, the steeper gradient of a part of the road appears never to have been considered as a very serious obstacle.

Beyond the cost of making a gully passable for traffic, there would be the additional cost, say £25, for fencing the proposed deviation, should it be decided to adopt it in lieu of the reserved road.

A. J. STOPPS  
(for Surveyor-General).

Submitted. See 83-280 and 83-386.—H.W., 28/7/83.

Under this report from the Surveyor-General, I will not sanction the opening of this road if Mr. Lord objects to the same being opened, as already one road has been left through his land. If Mr. Lord consents, the old road might be cancelled and the new one opened.—J. P. ABBOTT, 30/7/83.

H. H. Brown & Co., and A. Ross, M.D., M.P., informed, 31/7/83.

## No. 11.

Messrs. H. H. Brown &amp; Co. to The Under Secretary for Mines.

Sir,

21, Exchange Buildings, Pitt-street, 3 August, 1883.

We have the honor to acknowledge your letter of 31st July, 1883, and to advise you that our client, the Honorable Francis Lord, objects to any further road being opened through his land, portion No. 115, of 513 acres, parish of Burrawong, county Gordon. Mr. Lord cannot see that the proposed road would confer upon the public any special benefits, and is assured that it would cause him great inconvenience; therefore he objects to any further roads being opened, and especially the one proposed in this case.

I have, &amp;c.,

H. H. BROWN & CO.,  
Agents for Hon. F. Lord.

Submitted.—G.E.H. (for the Under Secretary), 3/8/93. Seen.—J. P. ABBOTT, 4/8/83. The Surveyor-General.—G.E.H. (for the Under Secretary), B.C., 8/8/83. Put away.—A.J.S., 8/8/83.

## No. 12.

Andrew Ross, Esq., M.D., M.P., to The Honorable the Minister for Mines.

Sir,

Molong, 15 January, 1885.

Enclosed find petition signed by fifty-eight settlers (and who are compelled to travel the road) in favour of the road from Cumnock to Bolrudgey, *via* the hollow at Burrawong, in place of the steep hill. Justice and public right is undeniably on the side of the petitioners, and I trust, therefore, that you will take their application into early and favourable consideration.

I have, &amp;c.,

ANDREW ROSS, M.D. and M.L.A.

Acknowledge.—G.E.H. (for the Under Secretary), 16/1/85. A. Ross, M.D., M.P. Acknowledged, 17/1/85. The Surveyor-General.—G.E.H. (for the Under Secretary), B.C., 19/1/85.

It has been decided on Rds. 82/202-21, Surveyor-General's Office, herewith, not to open the deviation herein referred to without the consent of the owner of the land, which has not been obtained.—A. J. STORPS (for Surveyor-General), 3/2/85.

Submitted.—G.E.H. (for the Under Secretary), 5/2/85. Approved.—J. P. ABBOTT, 10/2/85. A. Ross, M.D., M.P., informed, 12/2/85. The Surveyor-General.—G.E.H. (for the Under Secretary), B.C., 12/2/85.

## [Enclosure.]

The Honorable the Minister for Mines, Sydney,—

Sir,

Cumnock, 29 December, 1884.

We, the undersigned, do most earnestly hope that you will see that the necessary steps are taken to have the road from Buldary to Cumnock, in the vicinity of Burrawong, taken and proclaimed up the hollow of the hill, in place directly up the hill, as now proposed in front of Burrawong residence. The old road (the one advocated by Wm. Ross) is the road we, the settlers in this locality, insist on being proclaimed a public road, as it is the only road that we can travel in safety or with produce to market.

To take the road in any other way will only be to inflict a shameful and perpetual wrong upon the travelling public and every settler who has to get his produce to market. The papers and maps of the road in question are already in your office, and we trust, in justice to the travelling public, that you will see the propriety of at once acceding to the request of these your humble petitioners. Your earliest and immediate attention to the matter, before the road is fenced in, will oblige.

We have, &amp;c.,

Name.	Occupation.	Residence.
James O'Brien .....	Farmer.	Merrangle.
Daniel O'Brien .....	"	Cumnock.
Michael Whittaker .....	"	"
Patrick McGuver.....	"	"

[Here follow fifty-four other signatures.]

## No. 13.

The Under Secretary for Mines to Andrew Ross, Esq., M.D., M.P.

Sir,

Department of Mines, Sydney, 12 February, 1885.

With reference to your letter of the 8th ultimo, forwarding a petition for a road from Cumnock to Bolrudgey, *via* the hollow at Burrawong, in lieu of that part over the steep hill, I have the honor to inform you that it has been decided not to open the deviation applied for without the consent of the owner of the land, which has not been obtained.

I have, &amp;c.,

HARRIE WOOD,  
Under Secretary.

## No. 14.

The District Engineer to The Under Secretary for Public Works and Commissioner for Roads.

*Minute Paper.*

Road, Cumnock to Bolderogery—Deviation at Burrawong Hill.

Department of Public Works, Engineer-in-Chief's Office, Sydney, 4 June, 1898.

THE traffic, which is large and heavy along the scheduled road "Cumnock to Bolderogery," is reported to be considerably hampered by the severe grades on Burrawong Hill. The ruling grade at this place is about 1 in  $7\frac{3}{4}$ , and to reduce in a reasonable degree would entail an unnecessary large outlay. By the construction

construction of the deviation indicated by red line on tracing a ruling grade of 1 in 16½ may be obtained at an expenditure fully warranted by the traffic. This deviation is 10 chains shorter than the existing road, and, owing also to the flatter grades, the cost of maintenance would be considerably reduced.

The owner is anxious for the construction of an improved road, and, it is reported, will make no further claim than to be granted the old road in lieu of that proposed to be taken. It is recommended that the Department of Lands be asked to take into early consideration the desirability of establishing the deviation indicated.

WILLIAM A. SMITH,  
District Engineer.

7th June, 1898.—Under Secretary for Public Works and Commissioner for Roads. The Under Secretary for Lands.—R.P.H. Under Secretary for Works and Commissioner for Roads, B.C., 7 June, 1898.

### No. 15.

#### The Chief Surveyor to The District Surveyor, Orange.

Road, Cumnock to Bolderogery—Suggested deviation at Burrawong Hill, parish of Burrawong, county of Gordon.

2 August, 1898.

THE deviation suggested by the Department of Public Works was agitated for some years back by certain of the residents, but as the then owner of portion 115 (F. Lord) opposed its adoption, it was thought inadvisable under the circumstances to establish it, although it was admittedly a better road than the one in existence. Since then it would appear that portion 115 has changed hands, and it is stated the present owner is anxious for an improved road, and will make no claim for compensation other than for grant of the area contained in the road proposed to be superseded.

These papers are now forwarded to the District Surveyor for report or, at discretion, survey of the deviation referred to.

E. TWYNAM,  
Chief Surveyor.

Received in District Survey Office, Orange, 5th August, 1898. Mr. Surveyor Chapman, for action accordingly. In view of the District Engineer's minute of 6th June, survey would appear advisable. Usual particulars to be reported.—H. A. CROUCH, District Surveyor, 5th August, 1898. Replied to by my letter dated 29th August, No. 98-79.—A. W. CHAPMAN, Surveyor.

[Enclosure.]

Department of Lands, Sydney, 5 August, 1898.  
MR. A. W. CHAPMAN, surveyor, is hereby authorised, under provisions of the "Public Roads Act of 1897," to survey proposed deviation of road at Burrawong Hill, on the Cumnock Bolderogery Road, within portion No. 115, parish of Burrawong, county of Gordon, for which purpose he may enter on alienated lands and Crown lands under lease, as provided in section 27 of the said Act. Notice of survey will be issued by the District Surveyor to proprietors upon whose lands it may be requisite to enter.

E. TWYNAM,  
Chief Surveyor.

### No. 16.

#### Mr. Surveyor A. W. Chapman to The District Surveyor at Orange.

Surveyor A. W. Chapman to the District Surveyor at Orange, transmitting plan of land to be resumed under the Public Roads Act of 1897, in connection with proposed road from Dilga to Cumnock, within John Young's portion No. 115, parish of Burrawong, county of Gordon, land district of Molong.

No. 98-79.

Sir,

Orange, 29 August, 1898.

I have the honor to transmit herewith the plan of the abovementioned road, survey of which was completed by me on the 11th instant, in accordance with your instructions dated 5th August, No. 98-76.

1. This survey includes the centre line marked by the local officer of the Public Works Department as site of proposed deviation in lieu of existing road. It has easier grades, and is about 10 chains shorter than the old road, and the proposed alteration appears to be a desirable one.

2. A width of 1½ chain was adopted, in conformity with existing road and design furnished by the Works Department. It being a stock route, the extra width is desirable in this instance.

3. The owner's consent (in writing) was obtained. The only compensation he asks for is an exchange of roads.

4. The area of road to be resumed is 6¾ acres, and its value as unimproved freehold, at 25s. per acre, is £8 8s. 9d.—6¾ acres ringbarked and suckered, £1; total, £9 8s. 9d.

5. The area of old road which will not be required after deviation is established, and will be available for exchange, is 8¼ acres, and its value as unimproved freehold, at 25s. per acre, is £10 6s. 3d., or 17s. 6d. more than values of land to be resumed. As, however, the surface of old road is beaten, and will not be fit for grazing for some time, the values of respective roads might be considered equal.

6. The country in each case is undulating, stony in parts, and may be considered fair grazing land.

The cost of removing old line of fence on existing road to deviation would be 93 chains at £20 per mile—£23 5s. Mr. Young, however, does not ask for cost of removal of fence, and as he will be materially benefited by the improvements of road and easier grades, an exchange of roads only is considered a fair compensation.

I have, &c.,

A. W. CHAPMAN.

R. 6,075-1,603. Checked and charted.—W. J. ROPER, 3rd November, 1898. Examined.—A. R. GALL, 4th November, 1898. Plan approved.—H. A. CROUCH, District Surveyor, 4th November, 1898. See covering minute.

[Enclosures.]

## [Enclosures.]

19 August, 1898.

I, JOHN YOUNG, of Burrawong, Cumnock, owner of portion No. 115, in the parish of Burrawong, in the county of Gordon, do hereby express my willingness to allow the land marked out for a road by Mr. A. W. Chapman, surveyor, within the portion specified, to be resumed under the Public Roads Act of 1897, and undertake that no claim for compensation shall be made to the Crown in respect thereof, provided the old road which it supersedes is granted me in exchange.

JOHN YOUNG.

Witness—S. P. REYNOLDS.

Forwarded to the District Surveyor at Orange with my letter dated 29th August, No. 98-79.—A. W. CHAPMAN, Surveyor.

SCHEDULE of proposed resumption and of unnecessary roads intended to be closed under the Public Roads Act of 1897. Description of the Land proposed to be resumed and of road deemed to be unnecessary which is to be closed in connection with the intended part of road from Dilga to Cumnock, within John Young's portion 115, parish of Burrawong, county of Gordon.

## Land District of Molong.

No. of Portion.	Area of Portion.	Name of Parish.	Reputed Owner.	Occupier.	Character of Holding.	Width of Land to be resumed.	Area to be resumed.	Road to be closed, &c.
115	a. r. p. 513 0 0	Burrawong	John Young	John Young.	Freehold	1½ chain	a. r. p. 6 3 0	The unnecessary part of the reserved road within the portion is to be closed and granted in lieu.

Transmitted to the District Surveyor at Orange with my letter of 29th August, No. 98-79.—A. W. CHAPMAN, Surveyor. R. 6,075-1,603 (flat).

## No. 17.

The District Surveyor at Orange to The Under Secretary for Lands.

## Memorandum.

26 October, 1898.

PLEASE supply Catalogue number for plan of survey of the road indicated on the attached sketch.

A. R. GALL

(pro District Surveyor).

The plan may be catalogued R. 6,075-1,603.—W. WINDER (for the Chief Surveyor), 29/10/98, 1-11, No. 114.

## No. 18.

The District Surveyor at Orange to The Under Secretary for Lands.

## Memorandum.

Part Road from Dilga to Cumnock, parish Burrawong, county Gordon.

4 November, 1898.

1. In pursuance of instructions of 2nd August, No. 98-79, survey has been effected.

The necessity for the deviation was strongly maintained by the District Engineer's minute of 6th June last (enclosed), and it is no doubt much superior to the old road.

2. The deviation is wholly within portion 115 freehold, owned by Mr. John Young, who has given his written consent to resumption without compensation other than that the old road be granted in lieu.

As Mr. Young will be benefited by the establishment of the new road, he does not ask for costs in connection with removal of fences.

The lands for exchange may be considered of equal value.

It is recommended that the road be established as surveyed.

H. A. CROUCH,

District Surveyor.

R. 6,075-1,603 f.  
under separate  
cover.

## No. 19.

## Office Memorandum.

Preliminary Notice.—Proposals to resume lands, and to close roads deemed to be unnecessary.

10 January, 1899.

THE accompanying papers relate to a proposed resumption of land for and in connection with the intended part of road from Dilga to Cumnock, within John Young's portion 115, parish of Burrawong, county of Gordon.

It is recommended that due notice be now given of the intention to resume the requisite land and to close certain roads deemed to be unnecessary, under the Public Roads Act of 1897.

W. WINDER.

Approval on Schedule, 99/28-1. Notified 18th January, 1899, folio 527. Advertised, 19/1/99. Crown Land Agent, Molong,—Notice and helio., 21/1/99. Owner informed, 21/1/99. Resubmit, 26th February, 1899.

Plan R. 6,075-1,603 (flat.)  
Copy of plan showing position of road, and a Schedule giving particulars of proposed resumption, and of roads proposed to be closed, are herewith. The copy of plan and a copy of the Schedule should be sent to the Land Agent at Molong.

No. 20.  
Gazette Notice.

Department of Lands, Sydney, 18 January, 1899.

Notification of proposed resumption of land, and of the intention to close certain roads deemed to be unnecessary, under the Public Roads Act of 1897.

NOTICE is hereby given that it is proposed to resume certain lands for and in connection with intended roads, and to close certain unnecessary roads in compensation therefor, under the Public Roads Act of 1897.

Should any person desire to object to the action proposed to be taken, it is requested that objection be made in writing, and forwarded to the Minister for Lands within one month from the date of this notice.

J. H. CARRUTHERS.

Description of Road to be opened:—Part of road from Dilga to Cumnock, within John Young's portion No. 115, parish of Burrawong, county of Gordon. Plan of land to be resumed, which shows also the road intended to be closed, may be inspected at this office, and a copy of the same, with Schedule of particulars, at the office of the Crown Land Agent at Molong.

[Rds. 82/202-32; R. 6,075.]

Schedule and Particulars of Land proposed to be resumed, and of road deemed to be unnecessary and intended to be closed.

Land District of Molong.

Parish No.	Area.	Parish Name.	Reputed Owner.	Occupier.	Character of Holding.	Width of Land to be Resumed.	Area to be Resumed.	Road to be closed in compensation, &c.
115	a. r. p. 513 0 0	Burrawong ..	John Young ..	John Young..	Freehold ..	1½ chain ..	a. r. p. 6 3 0	The unnecessary part of the reserved road within the portion is to be closed and granted in lieu.

No. 21.

The Under Secretary for Lands to The Crown Lands Agent at Molong.

Sir,

Department of Lands, Sydney, 21 January, 1899.

I am directed by the Minister for Lands to forward the accompanying copy of a plan of survey of land which it is proposed to resume under the Public Roads Act of 1897, in connection with an intended road, and to request you to post the same outside your office.

A notice also is enclosed, specifying a time within which objections in writing may be lodged with the Minister for Lands, which notice you are requested to post in like manner.

At the expiration of one month from the date such copy of plan and notice were so posted, you will be good enough to return the same to this Department with a statement showing that you have complied with this request.

I have, &c.,

W. HOUSTON,

Under Secretary

(per F.H.W.)

The accompanying heliograph and notice have been exhibited at this office from the 25th January to 25th February, 1899.—F. S. MURRAY, Crown Land Agent, Molong, 25th February, 1899. The Under Secretary for Lands.

No. 22.

The Under Secretary for Lands to Mr. John Young.

Sir,

Department of Lands, Sydney, 21 January, 1899.

I am directed by the Minister for Lands to invite your attention to a notice in the *Government Gazette* of the 18th instant, a copy of which is enclosed, relating to the proposed resumption of land under the Public Roads Act of 1897, within property said to be owned and occupied by you, and proposed closing of an unnecessary road, particulars of which are given in the Schedule appended to the *Gazette* notice referred to.

A copy of the plan of lands to be resumed and closed can be inspected at the office of the Crown Land Agent at Molong.

Should you desire to lodge any objection to the proposed resumption, &c., it should be made in writing, and forwarded to the Minister for Lands within one month from the date of the notice in the *Government Gazette*.

I have, &c.,

W. HOUSTON,

Under Secretary

(per F.H.W.)

No. 23.

Office Memorandum.

Resumption Notice.—Lands now to be resumed and unnecessary roads to be closed.

10 March, 1899.

NOTICE of proposed resumption of certain lands and of the proposed closing of certain roads deemed to be unnecessary in connection with the intended road herein referred to, and shown on the accompanying plan, having been duly given in accordance with the Public Roads Act of 1897, it is recommended that the case be now submitted to His Excellency the Governor for authority to resume the lands and to close the unnecessary roads.

R. 6,075-1,603  
(flat) herewith.

Minute, 11/3/99.

A. J. STOPPS,

C. D. of Roads.

No. 24.

## 11

**No. 24.**  
**Minute for Executive Council.**

Resumption of Land and the closure of unnecessary roads under the Public Roads Act of 1897.

Department of Lands, Sydney, 11 March, 1899.

It is recommended for the approval of His Excellency the Lieutenant-Governor and the Executive Council, that the lands which have been particularised by notification in the *Government Gazette* as proposed to be resumed, be now resumed; and that the roads deemed to be unnecessary (intended closing of which has been duly notified) be now closed under the Public Roads Act of 1897:—Part of road from Dilga to Cumnock, within John Young's portion 115, parish of Burrawong, county of Gordon.

J. H. CARRUTHERS.

The Executive Council approve of the recommendation herein specified.—ALEX. C. BUDGE, Clerk of the Council, 14/3/99. Approved.—FREDK. DARLEY, Lieutenant-Governor, 14/3/99. Confirmed, 21/3/99. Notified, 29th March, 1899; folio 2546. Minute 99-12.

**No. 25.**

*Gazette Notice.*

Notification of resumption of Lands, and of the closing of certain unnecessary roads under the Public Roads Act of 1897.

Department of Lands, Sydney, 29 March, 1899.

NOTICE is hereby given that the lands proposed to be resumed under the Public Roads Act of 1897, and embraced within the holdings particularised in the appended Schedules, are hereby resumed, and the unnecessary roads described in the same Schedules, and proposed to be closed, are hereby closed.

By His Excellency's Command,

J. H. CARRUTHERS.

Description of Road opened:—Part of road from Dilga to Cumnock, within John Young's portion No. 115, parish of Burrawong, county of Gordon.

[Rds. 82/202-35; R. 6,075]

Schedule and Particulars of Land resumed, and of Road deemed to be unnecessary and now closed.  
Land District of Molong.

Parish No.	Area.	Parish Name.	Reputed Owner.	Occupier.	Character of Holding.	Width of Land Resumed.	Area Resumed.	Road closed in compensation, &c.
115	a. r. p. 513 0 0	Burrawong ...	John Young ...	John Young..	Freehold ...	1½ chain ..	a. r. p. 6 3 0	The unnecessary part of the reserved road within the portion is closed and will be granted in lieu.

**No. 26.**

**Office Memorandum.**

Resumed Land declared to be a Public Road.

12 April, 1899.

It is recommended that the authority of His Excellency the Governor be now obtained to proclaim the land which has been resumed for the road herein mentioned to be a public road under the Public Roads Act of 1897.

Minute, 14/4/99.

W. WINDER.

**No. 27.**

**Minute for Executive Council.**

Lands resumed for a Road declared to be a Public Road.

Department of Lands, Sydney, 14 April, 1899.

It is recommended for the approval of His Excellency the Lieutenant-Governor and the Executive Council, that the lands which have been resumed by notification in the *Government Gazette* for a road under the Public Roads Act of 1897, No. 5, be now declared to be a public road:—Part of road from Dilga to Cumnock, within John Young's portion No. 115, parish of Burrawong, county of Gordon.

J. H. CARRUTHERS.

The Executive Council approve of the recommendation herein specified.—ALEX. C. BUDGE, Clerk of the Executive Council, 18/4/99. Minute 99-17. Approval.—FREDK. DARLEY, Lieutenant-Governor, 18/4/99. Confirmed, 25/4/99. Notified, 3/5/99; folio 3432.

**No. 28.**

*Gazette Notice.*

Lands resumed for Roads declared to be Public Roads.

Department of Lands, Sydney, 3 May, 1899.

NOTICE is hereby given that the lands which have been resumed by notification in the *Government Gazette* for roads, under the Public Roads Act of 1897, are now declared to be public roads.

By His Excellency's Command,

J. H. CARRUTHERS.

Roads No.	Description of Road.	Date of Gazette of last Notice.
82-202-37; R. 6,075	Part of road from Dilga to Cumnock, within John Young's portion No. 115, parish of Burrawong, county of Gordon.	29 March, 1899; folio 2546.

[Two Plans.]

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be clearly documented and supported by appropriate evidence. This includes receipts, invoices, and other relevant documents that can be used to verify the accuracy of the records.

In addition, the document highlights the need for regular audits and reviews. By conducting periodic checks, any discrepancies or errors can be identified and corrected promptly. This helps to ensure the integrity and reliability of the financial data being recorded.

Furthermore, the document stresses the importance of transparency and accountability. All transactions should be recorded in a clear and concise manner, making it easy for anyone reviewing the records to understand the details. This level of openness is essential for building trust and maintaining the credibility of the organization.

Finally, the document concludes by reiterating the significance of diligent record-keeping. It serves as a foundation for sound financial management and decision-making. By adhering to these principles, organizations can effectively track their performance and ensure the long-term success of their operations.

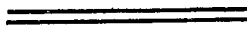



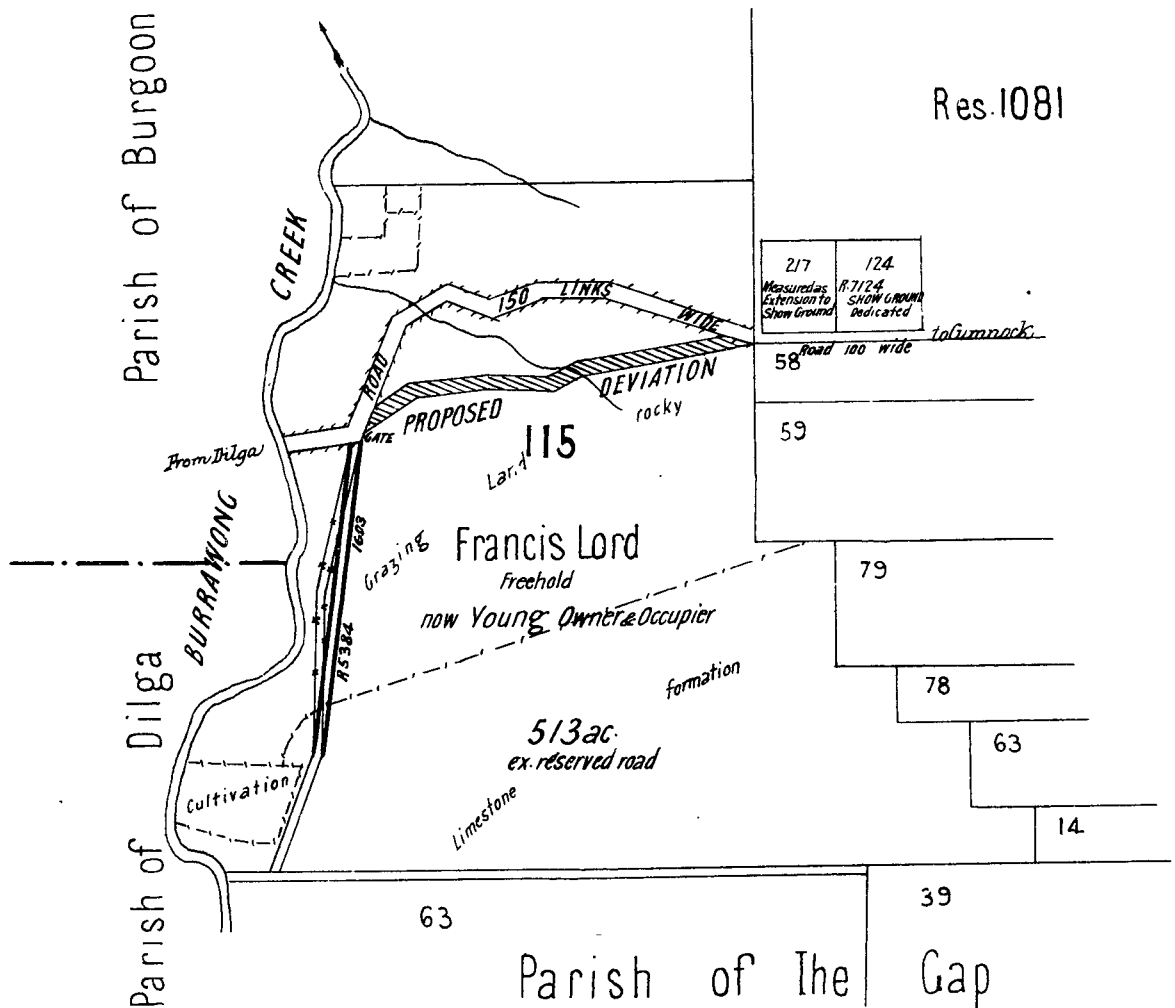
### TRACING

shewing proposed deviation at Burrawong Hill  
on the Gumnock Bolderogery Road

Parish of Burrawong  
County of Gordon

Scale 20 chains to an Inch.

Red lines on Original shown hereon thus   
Red tint on Original shown hereon thus 



To accompany my minute of 4<sup>th</sup> June '98.

Department of Lands  
Roads Branch 10.11.98  
1882. 202  
29

Enclosure to No. 16.

Land Board District  
Head Office Orange  
98.6998 enclosure

# PLAN

of land to be resumed under the Public Roads Act of 1897  
in connection with proposed Road from Dilga to Cumnock, within John Young's Por: 115

## Parish of Burrawong County of Gordon

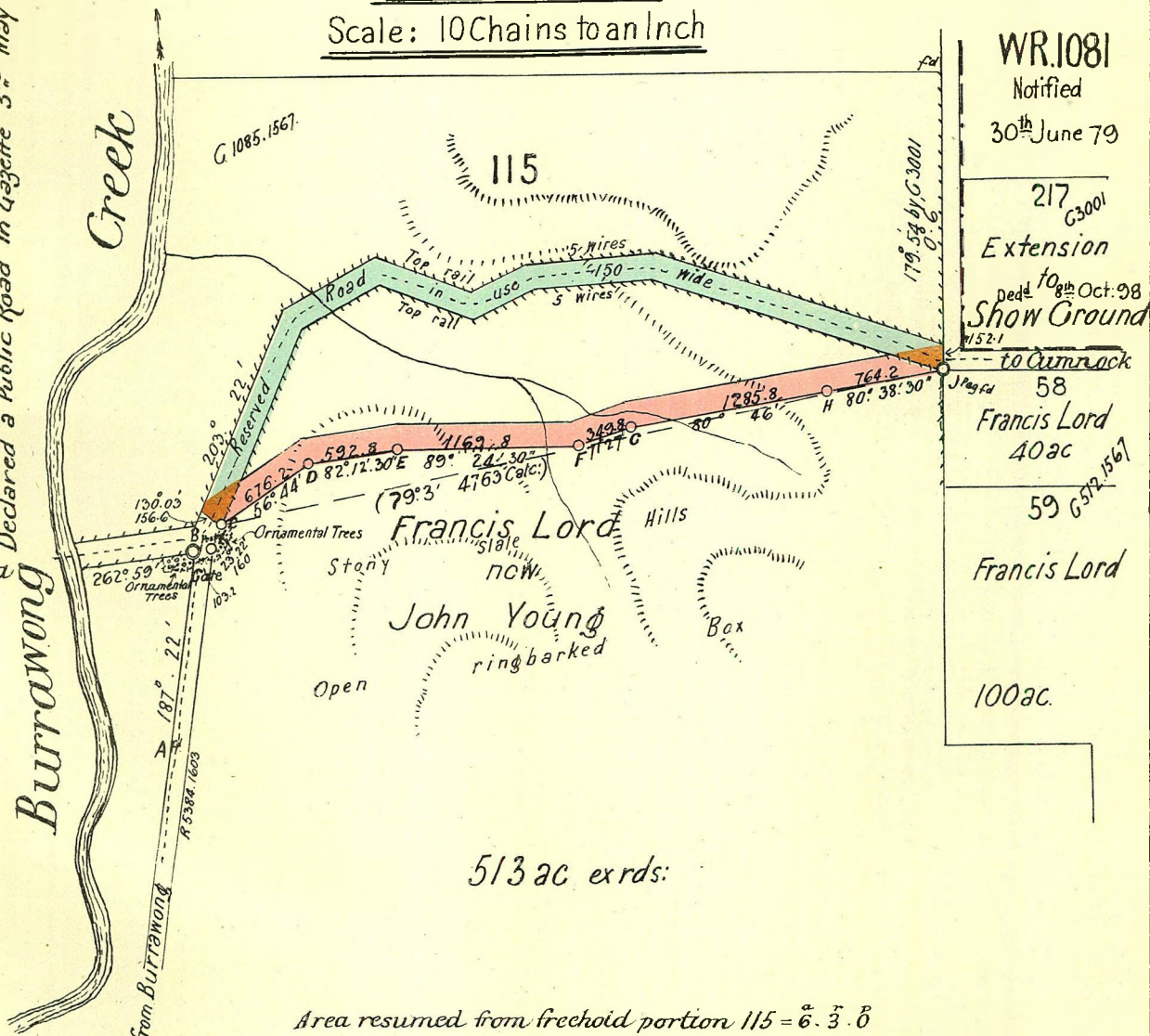
LAND DISTRICT OF MOLONG, LAND BOARD DISTRICT OF ORANCE

Width of proposed road, 150 links

The land proposed to be resumed for the road, is shown by Red Color,  
and the land proposed to be granted in lieu of land resumed, by Blue color.

Scale: 10 Chains to an Inch

Proposed Resumption gazetted 18th Jan. 1899 fol. 527  
Resumption do 29th March '99 fol. 2546  
Declared a Public Road in Gazette 3rd May 1899 fol. 3432  
fr. Dilga



Permanent Mark placed 5links from B on line BA  
do 5links from J on line J.H.  
Azimuth taken from A B.  
Field Book Vol A 7242 Folio 25  
Calculation Book Vol: 1722. Folio 9  
Checked and Charted (S<sup>d</sup>) W. J. Roper 3rd Nov. '98  
Examined (S<sup>d</sup>) A. R. Gall 4th Nov. '98.  
Plan Approved 4th Nov. 1898

(S<sup>d</sup>) H. A. Crouch District Surveyor

I hereby certify that I in person made,  
and on the 11th August 1898 completed  
the survey represented on this plan, on which  
are written the bearings and lengths of the  
lines measured by me, and I declare that the  
survey has been executed in accordance with  
the instructions published for the guidance  
of Licensed Surveyors, and the practice of  
the Department of Lands.

(S<sup>d</sup>) A. W. Chapman Staff Surveyor

Prepared for Proclamation (S<sup>d</sup>) R.A.C. 17.12.98

(S<sup>d</sup>) G. O. E. 19.12.98

Transmitted to the District Surveyor with my Letter  
of 29th Aug. N<sup>o</sup> 98.79

R6075.1603.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## NATIONAL PARK.

(REPORT OF TRUSTEES FROM 1ST JANUARY, 1898, TO 30TH JUNE, 1899.)

*Printed under No. 7 Report from Printing Committee, 26 October, 1899.*

Sir,

The Trustees of the National Park have the honor to present you with their Report from the 1st January, 1898, to the 30th June, 1899.

It is with deep regret that they have to record the death of Mr. Maurice O'Connor, L.R.C.S., &c., Death of a Trustee. one of the Trustees, who always took an active part in the conservation and improvement of the Park.

The Trustees have again much pleasure in stating that the public interest still continues to be visitors. manifested in this magnificent reserve—the number of visitors having greatly increased during the past year.

As stated in previous reports, the rules for prohibiting shooting and net-fishing have been strictly enforced, while the greatest care has been taken in the preservation of the flora, &c.

The principal works and improvements carried out since the last report was furnished are as follows:—

The public pavilion at Audley has been enlarged by an addition of 14 feet to the dining-room, and Audley Pavilion. a covered way has been erected between the kitchen and the main building. Additional bathrooms have also been erected for the convenience of visitors, and water-heaters placed therein. The grounds have also been greatly improved.

A substantial bridge has been constructed across Kangaroo Creek (in place of the one which was Bridge over Kangaroo Creek. washed away by the flood). This bridge is much used by the public, as it gives direct access to the aviary and also to excellent picnic-grounds.

A verandah has been added to the stables at Audley, which will afford shelter and protect the Stables. building from the south and west winds.

It has been found necessary to erect a new cottage near the dam at Audley for one of the New cottages, near dam and Mullin Brook. employees, and another at Mullin Brook for the maintenance-man in charge of Lady Carrington Road.

A large concrete pond has been made for aquatic birds, and a new windmill erected in order to Aviary. ensure a permanent supply of water. The aviary contains a large number of birds, and is much frequented by visitors.

A powder magazine has been erected for the storage of dynamite and other combustibles used for Powder Magazine. blasting purposes.

This portion of the Park still continues to attract a large number of visitors. The buildings have Warumbul. been renovated and kept in a thorough state of repair; an additional room has been erected, and a covered way built connecting the dining-room with the kitchen, and a water-heater fixed in the bathroom for the convenience of boarders. Stone pillars have been built under the approach to the floating jetty, and the garden and grounds greatly improved.

A new cottage has been erected (for the Fisheries Inspector) at Yenabilli, which commands a view Yenabilli. of the various bays in Port Hacking.

The road from the Junction to Loftus (now National Park Station) has been re-formed, about Road, Junction to Audley. twenty (20) chains of it having been ballasted and gravelled and several of the culverts repaired, and the road leading from the Station down to Audley has been greatly improved, ten (10) chains of a narrow part having been cut away and widened to thirty-two (32) feet, and eighteen (18) chains of it ballasted and gravelled.

The Lady Carrington and Waterfall Roads, which are greatly used by the public, have been kept Lady Carrington and Waterfall Roads. in good order; the bridges and culverts have been repaired and made secure, and dangerous places fenced, in order to prevent accident.

- Plantations. About two thousand (2,000) more trees have been planted and are doing well; those previously planted have been attended to and are making rapid growth.
- Clearing, &c. Several of the flats on the river banks have been further cleared and planted with buffalo grass, and twenty-five (25) additional seats have been placed in convenient picnic places for the use of the public.
- Deer Park. The Deer Park has been further improved and cleared of underscrub, and about a mile of substantial fencing of eight (8) wires has been put up in order to prevent the deer (which are increasing in numbers) from trespassing on the adjoining private properties.
- River improvements. The navigable waters both above and below the Dam have been kept free from snags.
- General. The whole of the buildings, roads, &c., throughout the Park have been kept in good order.

CRITCHETT WALKER,

Chairman of the National Park Trust.

The Honorable The Chief Secretary.

REVENUE and Expenditure from 1st January, 1898, to 30th June, 1899.

Revenue.				Expenditure.			
	£	s.	d.		£	s.	d.
To Amount brought forward .....				By General improvements, making and maintaining roads, &c..			
„ voted by Parliament .....	4,000	0	0	Timber, building materials, &c. ....		256	0
Royalty on clay .....	25	13	7	General carpentry .....		335	9
Rents, agistment, and hire of launches .....	266	18	0	Salaries—Secretary, Rangers, &c. ....		767	13
Balance .....	1,795	13	8	Forage for horses, repairs to vehicles, harness, &c.....		178	10
			6,088	5	3		
			£ 6,101	12	5	£ 6,101	12
							5

M. MALONEY,  
Secretary.

FRANK FARNELL,  
Hon. Treasurer.

1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

BOTANIC GARDENS AND DOMAINS, &c.  
(REPORT ON, FOR THE YEAR 1898.)

*Printed under No. 3 Report from Printing Committee, 22 August, 1899.*

The Director of the Botanic Gardens to The Principal Under Secretary.

Botanic Gardens, Sydney, 24 June, 1899.

Sir,

I have the honor to submit a Report on the Establishments under my control for the year 1898.

The year in question has been a period of drought and consequent anxiety, yet I hope the conditions of the various gardens and parks will be found to be satisfactory.

I have the honor to be,

Sir,

Your obedient Servant,

J. H. MAIDEN,

Director.

CONTENTS OF REPORT.

Botanic Gardens.

Introductory.	Sewerage.
Arrangement Ground.	Water supply.
Other beds and borders.	Roads and paths.
Lawns.	Labelling.
Boundaries and fences.	Spraying.
Plant houses.	Oka (a new vegetable).
New buildings.	Correspondence.
National Herbarium.	Seeds received and despatched.
Botanical Museum.	Living plants received and despatched.
Public lectures.	Herbarium specimens.
Departments of Agriculture and Forests.	Publications acquired by gift.
Collecting and botanising tours.	Publications acquired by purchase.
Publications.	Aviary.
Guide to Gardens.	

## Government Domains.

Introductory.	Painting.
Carriage roads.	Refuse.
Footpaths.	Public latrines.
Removal of old trees.	Music.
Tree-planting during the year.	Cricketing and other games.
Grass.	Bathing.
Water supply.	Insect pests.
Lighting.	Weeds.
Seats.	Visitors.
Railings and fences.	Government House Gardens.
Tree-guards.	Miscellaneous.

## Garden Palace Grounds.

Water supply.	Painting.
Removal of fence between Garden Palace Grounds and Botanic Gardens.	Top-dressing of lawns.
	Soil for new border.

## Centennial Park.

Tree-planting.	The ride.
Tree-guards.	Cyclists.
Protection of native vegetation.	Erection of buildings.
Native flower plantation.	Band stand.
Collection of native grasses, Cyperaceæ, &c.	Latrines.
Effects of the continued drought.	Reservoir (Sydney Water Supply).
Tarring and metalling of roads and paths.	Statuary.
Road between Queen and Ocean Streets.	Water fowl.

## State Nursery, Campbelltown.

Distribution of plants.	The weather.
Preparation of plants for season of 1899.	Water supply.
Seeds and plants received.	Improvements.

## Botanic Gardens.

*Introductory.*—In my last Report I enumerated the Annual Reports that had been issued from this establishment so far as I knew them. The Director of the Royal Gardens at Kew has drawn my attention to the fact that, in addition to those mentioned, reports were issued for 1856, 1857, and 1858. I have been able to procure a copy of the 1856 Report (dated 14th March, 1857); the other two Reports I have not yet seen.

*Arrangement Ground.*—Some of the Natural Order plots in the Monocotyledonous Arrangement Ground have been raised with new soil, and the plants re-arranged. Extensive alterations have taken place here which have rendered this section of enhanced educational value. Following are some further details of the improvements. A much larger area even than was rendered available last year is now devoted to Australian grasses, and about twenty-four (24) species were added to the collection during the year. Alongside these, as a matter of convenience of reference, a large bed of forage plants, or reputed forage plants, has been established. This bed contains specimens of the best forage-plants, together with those which have been from time to time advertised as such, often, it is feared, without accurate reference to their actual merits. The bed of exotic grasses has been largely denuded of duplicates as they have flowered, and a number of species added that were not hitherto in the collection. Additions have been made to the Liliaceæ, chiefly by the addition of indigenous species. Such orders as the Commelyneæ have been removed, as it was considered that the space they occupied could be more profitably employed.

These changes, with re-arrangement of the verges, have enabled me to establish beds for the Junceæ, Restiaceæ, and Cyperaceæ. These orders were practically non-existent in the Arrangement Ground, and very poorly represented in any part of the Garden; but largely through the assistance of Mr. W. Forsyth in collecting suitable plants, these three interesting and important orders are now fairly well represented, and their future improvement is only a matter of time.

Following are the Natural Order beds in the Arrangement Ground at the present time. The numbers preceding each order are those of Bentham and Hooker's *Genera Plantarum*. I may observe that additional orders are grouped together in other parts of the Garden. At the present time the Dicotyledonous Arrangement Ground is separated from that of the Monocotyledons by a considerable interval. I think that undesirable; and inasmuch as it is desired to have additional orders represented in the Arrangement Ground, I desire to take the first opportunity of connecting the two grounds by additional Natural Order beds, made in the narrow lawn which is adjacent to both.

DICOTYLEDONS.

## DICOTYLEDONS.

- |                     |                      |
|---------------------|----------------------|
| 1. Ranunculaceæ.    | 83. Caprifoliaceæ.   |
| 2. Dilleniaceæ.     | 84. Rubiaceæ.        |
| 10. Papaveraceæ.    | 85. Valerianææ.      |
| 11. Cruciferae.     | 88. Compositæ.       |
| 13. Rosedaceæ.      | 89. Styliðeæ.        |
| 18. Pittosporæ.     | 90. Goodeniaceæ.     |
| 20. Polygalaceæ.    | 91. Campanulaceæ.    |
| 22. Caryophyllaceæ. | 93. Ericaceæ.        |
| 31. Malvaceæ.       | 95. Epacrideæ.       |
| 32. Sterculiaceæ.   | 104. Oleineæ.        |
| 33. Tiliaceæ.       | 106. Apocynææ.       |
| 38. Geraniaceæ.     | 107. Asclepiadeæ.    |
| 39. Rutaceæ.        | 112. Boraginææ.      |
| 49. Rhamnææ.        | 113. Convolvulaceæ.  |
| 50. Ampelideæ.      | 114. Solanaceæ.      |
| 51. Sapindaceæ.     | 115. Scrophularineæ. |
| 57. Leguminosææ.    | 120. Bignoniaceæ.    |
| 58. Rosaceæ.        | 122. Acanthaceæ.     |
| 59. Saxifrageæ.     | 125. Verbenaceæ.     |
| 60. Crassulaceæ.    | 126. Labiateæ.       |
| 67. Myrtaceæ.       | 131. Chenopodiaceæ.  |
| 68. Melastomaceæ.   | 134. Polygonaceæ.    |
| 69. Lythraceæ.      | 144. Proteaceæ.      |
| 74. Passifloreæ.    | 145. Thymelaceæ.     |
| 75. Cucurbitaceæ.   | 151. Euphorbiaceæ.   |
| 78. Cactææ.         | 153. Urticææ.        |
| 79. Ficoidææ.       | 166. Cycadææ.        |
| 80. Umbelliferae.   |                      |

## MONOCOTYLEDONS.

- |                   |                 |
|-------------------|-----------------|
| 170. Scitamineæ.  | 186. Juncaceæ.  |
| 171. Bromeliaceæ. | 187. Palmææ.    |
| 172. Hamadoraceæ. | 188. Pandanææ.  |
| 173. Iridææ.      | 191. Aroidææ.   |
| 174. Amaryllidææ. | 198. Restiaceæ. |
| 176. Dioscoridææ. | 199. Cyperaceæ. |
| 178. Liliaceæ.    | 200. Gramineæ.  |

*Other Beds and Borders.*—In the Lower Gardens additional flower-beds have been made, and several borders have been enlarged. The additional space thus obtained has been almost exclusively devoted to florists' flowers. The borders in the "Old or Middle Garden" adjoining the Garden Palace Grounds have been cleared, trenched, new soil added, and prepared for replanting. These beds run north and south and are east of the corrugated iron fence that formerly existed in this situation and which has been referred to under "Boundaries and Fences." This is one of the most prominent and most frequently patrolled areas in the Garden, and in place of the common trees and rampant growing shrubs found here, a selection of choice plants will be put out in the autumn.

*Lawns.*—The alterations to and top-dressing of lawns have been neither numerous nor important during the past year. The chief work under this head has been the top-dressing and levelling of the lawn between the lately-removed boundary between the Palace Garden and the Lower Botanic Gardens. About 200 loads of soil have been used in this work.

*Boundaries and Fences.*—For many years an iron railing separated the Palace Garden from the Lower Garden, its direction being north-east or south-west. This has been removed and re-erected between the Palace Garden and the Middle Garden, its direction being north and south. It has taken the place of an unsightly corrugated iron fence which had remained in position since the International Exhibition of 1879-83, forming an unsightly barrier between the two Gardens. There is now an unbroken vista along the Palace Garden and Lower Garden lawns—a charming view which attracts the attention of all lovers of the beautiful. I have referred to this matter in my Report on the Palace Garden (Garden Palace Grounds).

*Plant-houses.*—No changes have taken place here except some minor repairs, but tenders have been called for very extensive repairs to all our glass-houses, and for new pit and plant frames. An order has been sent to England for an iron hot-house, uniform in design with those of two already in the Garden, while tenders have been called in the Colony for a hot-house to be specially devoted to tropical Australian and Polynesian orchids. I trust, therefore, in my next Report, to have satisfactory information to communicate in regard to our plant-houses.

*New Buildings.*—Packing and potting sheds and store-rooms, together with a kitchen and dining-room for the men, have been erected during the year.

The packing-shed is a continuation of the existing stable buildings in an easterly direction, and a room, 35 feet by 18 feet, is provided, together with a loft for packing material. Great saving of labour and economy of time have resulted through the situation and the arrangement of this building. Parallel with this, and at a distance of 48 feet from it, is the building which contains a lofty potting shed, 23 feet by 13 ft. 6 in.; two store-rooms, 11 feet x 13 ft. 6 in. and 15 feet by 13 ft. 6 in. respectively; a men's kitchen, 11 feet by 13 ft. 6 in., adjoining which is a room, 19 feet by 13 ft. 6 in., which is used as a dining and recreation room. It is plainly but sufficiently furnished, and is much appreciated by the staff. The parallel lines of buildings are joined at their north-easterly and south-easterly corners by a substantial fence, thus forming a quadrangle.

The buildings are of brick, and were erected by Mr. J. Meeks at a contract price of about £600.

*National Herbarium.*—In my last Report I hoped to be able to announce that a suitable building to house the herbarium would be ready for occupation. This has not yet been realised, but the Government Architect has designed a commodious building of handsome design which will be in keeping with its beautiful surroundings. As I write, a tender for its erection has been let; so I trust that my hope of last year may be realised during the present one.

The particulars given on pages 10 and 11 give some idea of the progress made in the acquisition of herbarium specimens. They do not, however, indicate the collections of Australian plants made by my staff and myself and by willing coadjutors all over the Colony. I have been so busy in acquiring and naming specimens, that I have had no time to take a census of them, but I think the number of named species in the herbarium at the end of the year is not less than 15,000.

Messrs.

Messrs. Betche, Camfield and I have been engaged chiefly upon the phanerogams and vascular cryptogams, Mr. W. Forsyth on the mosses, and Mr. A. Grant on the fungi. The lichens and algæ have been put in order. Parliament has been pleased to vote a sum of money for the purchase of the lichen herbarium of the Rev. F. R. M. Wilson of Melbourne; this is, I believe, the finest collection of these plants in Australia. In my next Report I hope to announce that I have taken it over, and I will give some particulars of its contents.

Much attention has been given, during the past year, to the collection and investigation of plants from the Polynesian Islands.

*Botanical Museum.*—This is an adjunct to the herbarium, its contents consisting mainly of specimens which cannot be placed in the herbarium because they are too large, too clumsy, or because they are preserved in liquid. Its arrangement is precisely similar to that of the herbarium—Bentham and Hooker's *Genera Plantarum* being followed as closely as possible.

Besides the specimens to illustrate systematic botany, the Museum contains teratological specimens; garden plants affected by insect-pests (for these I am mainly indebted to the kindness of Mr. W. W. Froggatt, Government Entomologist); photographs and other pictorial illustrations of indigenous and other vegetation; photographs and other portraits of Australian botanists, and of those out of Australia who have identified themselves with Australian botany.

The specimens in the Museum by no means illustrate systematic botany merely, but also morphology and physiology. A special effort has been made to secure teratological specimens.

*Public Lectures.*—Having obtained a number of photographic views of landscapes and of interesting plants in the Botanic Gardens, I caused them, to the number of about ninety, to be made into lantern slides, and used them to illustrate a lecture I had been invited to give at the Y.M.C.A. in August. Opportunity was taken to give the large audience information which could only be given in a personally-conducted tour of the Gardens. The early history and development of the Gardens were dealt with, and information given in regard to the botany and economic uses of some of the plants. I repeated the lecture in September (St. James' Church), and in October (Randwick), and had to decline other invitations because of the demands on my time. If I could I would deliver many of these lectures during the winter months, particularly in the country districts, and thus give country people interesting information in regard to the Gardens of which they are so justly proud, but in regard to which they rarely receive guidance and instruction.

*Departments of Agriculture and Forests.*—I have received a large number of papers from those Departments for report during the year, but as I have made brief Annual Reports to both these Departments, they need not be repeated here.

*Collecting and Botanising Tours.*—Following are the principal journeys I have made:—

1. Mount Kosciusko, January.
2. Jenolan Caves, February and other months.
3. Lord Howe Island, March and April.
4. Melbourne (Herbarium), June.
5. Dubbo and Narromine districts, and Harvey Range, September.
6. Clarence Siding (highest point of Blue Mountains), September.
7. Appin (over some of Allan Cunningham's, and Sir William Macarthur's collecting grounds), September.
8. Shoalhaven gullies, October.
9. King's Table-land and edge of Burragorang Gorge, October.
10. Mount Tomah (Allan Cunningham's collecting ground in 1822), November.
11. Tenterfield district, and Dividing Range as far south as Mount Spiraby, east of Bolivia Station, December.

Some accounts of Trip No. 1 will be found in the *Agricultural Gazette* for July, 1898; of Trip No. 3, in the *Proceedings of the Linnean Society of New South Wales* for 1898.

On Trip No. 9 I was accompanied by Mr. W. Forsyth. In addition to the above, collecting trips were undertaken by Mr. E. Betche to the Walcha district, in December; by Mr. W. Forsyth to Mount Warning and the Tweed River district; by Mr. J. L. Boorman to the Dubbo district in December, and the Wyong district in October and other months; by Mr. J. H. Camfield to many collecting-grounds readily reached from Sydney.

By all members of the staff systematic collecting and recording of botanical observations were undertaken, with the double view of the enrichment of the herbarium and the acquisition of materials for a systematic botanical survey of the Colony.

*Publications.*—Following are the publications made either by me, or in co-operation with others:—

WITH HENRY DEANE, M.A., &c.

1. On the White Ash of Southern New South Wales (*Eucalyptus fraxinoides*, n.sp.)
2. Notes on the Eucalypts of New South Wales, No. 4.

The following species are dealt with:—

- E. piperita*, Sm.
- E. pilularis*, Sm.
- E. acmenoides*, Sieb.
- E. Sieberiana*, F.v.M.
- E. Sieberiana*, var. *Oxleyensis*, nov. var.
- E. Planchoniana*, F.v.M.
- E. eugenioides*, Sieb., var. *nana*, nov. var.

Both papers published in the *Proceedings of the Linnean Society of New South Wales*.

WITH W. S. CAMPBELL, F.L.S.

3. The Flowering Plants and Ferns of New South Wales. Small 4to. Part 7. With four coloured plates. (Government Printer, Sydney.)

WITH ERNST BETCHE.

4. Notes from the Botanic Gardens, Sydney, No. 2.
  - Oxylobium ellipticum*, R. Br. var. *alpinum*, var. nov.
  - Leptospermum lanigerum*, Sm. var. *macrocarpum*, var. nov.
  - Baeckea virgata*, Andr. var. *polyandra*, var. nov.
  - Podolepis longipedata*, A. Cunn., var. *robusta*, var. nov.
  - Also records of *Epacris mucronulata*, R. Br., *Pimelea axiflora*, F.v.M. var. *alpina*, and *Phyllanthus Mitchelli*, Benth., as new for the Colony.
5. Descriptions of four new species of Australian Plants (*Eugenia brachyandra*, *Verticordia darwinioides*, *Rulingia procumbens*, *Rulingia prostrata*).
6. Notes on *Sterculia (Brachychiton) lurida* and *discolor*.



## 7. Notes from the Botanic Gardens, Sydney, No. 3.

*Elaeocarpus longifolius*, C. Moore.  
*Boronia ledifolia*, J. Gay., var. *glabra*, var. nov.  
*Rupicola sprengeliioides*, gen. et sp. nov.  
*Grevillea juniperina*, R. Br.; var. *trinervata*, var. nov.  
*Ricinocarpus Bowmanni*, F.v.M., var. *albus*, var. nov.  
*Potamogeton ochreatus*, Raoul.

The above were published in the *Proceedings of the Linnean Society of New South Wales*.

8. On a new *Myoporum* from South Australia. (*M. refractum*). (*Proceedings of the Royal Society of South Australia*.)

WITH J. H. CAMFIELD.

9. Notes on some Port Jackson Plants (*Banksia*, *Boronia*, *Sprengelia*). (*Proceedings of the Linnean Society of New South Wales*.)

Following are my miscellaneous publications during the year:—

1. A Manual of the Grasses of New South Wales. Royal 8vo., pp. 199, with twenty illustrations. (Government Printer, Sydney.)
2. Some Eucalypts of the New England Table-land. (*Proceedings, Australian Association for the Advancement of Science, VII.*)
3. Notes on a trip to Mount Seaview, Upper Hastings River. (*Proceedings of the Linnean Society of New South Wales, XXIII.*)
4. Observations on the Vegetation of Lord Howe Island. (*Proceedings of the Linnean Society of New South Wales, XXIII.*)

Following is a list of the most important of the miscellaneous articles contributed by me to the *Agricultural Gazette of New South Wales*, and appearing in the 1893 issues of that publication. Some of these articles are illustrated:—

1. Useful Australian Plants, No. 49.—The Pigmy Panic Grass (*Panicum pygmaum*, R. Br.)
2. No. 50.—The Stringybarks of New South Wales.
3. Some Food-plants of the Aborigines.
4. Mount Seaview, and the way thither.
5. A contribution towards a Flora of Mount Kosciusko.
6. A study of the Prickly-pears naturalised in New South Wales.
7. Indigenous Vegetable Drugs (in two parts).
8. A chat about Wattle.
9. Some Exotic Grasses, No. 1.—Prairie Grass (*Bromus unioloides*, H.B. et K.)
10. New South Wales Weeds—Nut Grass (*Cyperus rotundus*, Linn.).

*Guide to Gardens*.—I regret that the Guide to the Gardens is not yet ready for the printer. I have spent much labour upon it during the past year, but it is very time-absorbing, and I have many other claims on my time; yet knowing how useful a guide will be to visitors, I am doing all I can to expedite its issue.

*Sewerage*.—Perhaps the most noteworthy improvement effected during the year has been the system of drainage carried out by the Sewerage Construction Branch of the Public Works Department, which has amply and permanently provided for nearly all the sanitary requirements of the Gardens. These sewers, which comprise a length of about 26 chains, consist of 6-in. diameter stoneware pipe sewers, jointed in cement compo., and laid at suitable depths to intercept the sewerage from the various buildings, stables, lodges, &c., throughout the grounds. The main line rises at the foot of the Palace Garden slopes, near the orchid houses, and follows the course of one of the main avenues in a generally south-easterly direction to near the Botanical Museum, where it receives two branch lines, one draining the upper and the other the lower portions of the Gardens. Thence it continues through the Outer Domain towards Woolloomooloo Bay, into which a temporary outlet pipe has been provided pending the completion of the Woolloomooloo low-level sewer system now in progress, when the drain from the Gardens will be connected with the pumping station in Forbes-street, and the discharge lifted into the ordinary high-level or gravitation sewers.

Every precaution was taken during the work to prevent damage to the plants or disfigurement to the Gardens, and the pipes being nearly altogether laid in tunnel through rock at a considerable depth, do not proclaim their existence in any undue or unpleasant fashion, while the attractions even of Sydney's fairest Paradise will be in no small degree enhanced by a perfect system of drainage. For purposes of inspection, flushing, and ventilation, shafts substantially built in concrete have been provided, while inlet pipes have been left to connect the various buildings with the sewers. The works, which cost some £1,400, are now complete, and have proved thoroughly efficient in action.

*Water Supply*.—Following is the registered supply of water during the year:—

Meter No. 205.—Botanic Gardens. Lower portion; also for birds, &c. ... ..	5,000,000	gallons.
Meter No. 279.—Upper Gardens, near Macquarie-street, Domain ... ..	847,000	"
Meter No. 207.—Garden facing Farm Cove and water-closets ... ..	1,111,000	"
Total ... ..	6,958,000	"

*Roads and Paths*.—Endeavour has been made to keep these in as good order as possible, but I am not satisfied with them yet. Several walks have been regravelled—(e.g.) walk along Azalea border; also that part of Mrs. Macquarie's Road in the Lower Garden which is between the north end of the aviary and the middle gate. The sides of the walk near the large hot-house—which walk was much disturbed by the sewerage operations—have been regruttered with a neat glazed drain of hemispherical section, and edged with turf.

*Labelling*.—This necessary work has been pushed on as well as our resources have permitted, but at present the whole of not even one man's time can be devoted to this important duty.

As regards florist's flowers, the commoner shrubs, and the better-known orchids, an experiment has been made of purchasing several hundreds of cast-zinc labels with raised lettering, and these labels are now on trial.

*Spraying*.—I think it is generally agreed that the Garden is freer from insect pests at the end than at the beginning of the year. This result has been arrived at, not so much by spraying as by destroying diseased plants or portions of them, and by carefully eradicating old worn-out trees and other plants wherever it was possible to spare them. In this way we have not only got rid of a number of unsightly plants, but the conditions of the neighbouring ones have been ameliorated.

We

We have an excellent spraying plant, and have done a little spraying, but not as much as I should have liked to have done, for lack of labour. I look forward to the day when we shall be in a position to continuously employ one man on the work of combating insect pests in the Garden. It would be his duty to spray and adopt other means for dealing with pests, and also, by systematic inspection of the whole of the Garden, to detect, at as early a stage as possible, any fresh insect attacks on a plant. It would also be his duty to critically examine every plant received in the Garden from outside with respect to its freedom from pests. This duty is carried out carefully at the present time, but it should, I think, be the special work of one man.

*Oka (a new vegetable).*—On the 18th January, 1893, the Director of the Royal Gardens at Kew wrote me as follows:—"I am sending you a few tubers of *Oxalis crenata*, the 'Oka' of the Peruvians, which is worth a trial as a vegetable for table. The tubers should be planted 3 feet apart in sandy soil, and treated like a potato. New tubers are formed at the end of the season, and, under favourable conditions, they are 3 inches long, and weigh 2 oz. When lifted they should be exposed to sunlight for two or three days. To cook them, boil for twenty minutes in water containing a pinch of carbonate of soda. They change to a bright amber colour, and if eaten with pepper and salt they are palatable, and of a pleasant flavour."

Five and a half oz. were planted on the 14th March, and 26 oz. were harvested on the 22nd July. This is not a conclusive test as to yield, as of course the tubers were planted out of season, but the test will be continued. As regards the flavour, I may say that I boiled one or two on the 7th October. They remind one both of potato and of a sweet potato, and are decidedly palatable.

*Correspondence.*—Letters registered from 1st January to 31st December, 1898, 4,451, being 632 more than during the corresponding period of 1897.

Letters despatched from 1st January to 31st December, 1898, 3,795, being 523 more than during the corresponding period of 1897.

As usual, the requests for information are of the most varied character, and a reply to a particular letter often involves so much research, and may be of such real public interest, that it would be published for general information did the Botanic Gardens possess a *Bulletin* of its own, as do so many institutions of a similar character. The lack of a special publication is, however, at the present very little felt, as I can address the public on botanical and economic matters in the columns of the *Agricultural Gazette*.

*Seeds received and despatched.*

BOTANIC GARDENS.

<i>Received.</i>	<i>Despatched.</i>
	Adelaide—
	80 packets N. S. Wales seeds.
	Antwerp—
	53 packets N. S. Wales seeds.
Arnold Arboretum, Jamaica Plain, Mass., U.S.A.—	
Packet of seeds of an arborescent palm.	
Baroda, India, State Gardens—	Baroda, India, State Gardens—
22 packets miscellaneous seeds.	60 packets N. S. Wales seeds.
	Belgrade, Servia—
	53 packets N. S. Wales seeds.
Berlin—	Berlin—
29 packets miscellaneous seeds.	125 packets N. S. Wales seeds.
	Breslau—
	53 packets N. S. Wales seeds.
	Bucharest, Roumania—
	53 packets N. S. Wales seeds.
Buitenzorg, Java—	Buitenzorg, Java—
24 packets palm seeds.	166 packets N. S. Wales seeds.
Calcutta—	Calcutta—
1 packet <i>Ficus altissima</i> seed.	45 packets N. S. Wales seeds.
1 packet <i>Mucuna imbricata</i> seed.	
California University (Garden of Native Plants), Berkeley—	California University (Garden of Native Plants), Berkeley—
169 packets miscellaneous seeds.	113 packets miscellaneous seeds.
1 packet seeds from Brindloe Island, 580 miles from Ecuador.	
Ceylon—	Catania, Sicily—
10 packets miscellaneous seeds.	64 packets N. S. Wales seeds.
Christiania, Norway—	Ceylon—
29 packets miscellaneous seeds.	15 packets N. S. Wales seeds.
	Christiania, Norway—
	55 packets N. S. Wales seeds.
	Cracow, Austria—
	30 packets N. S. Wales seeds.
	Dublin (Glasnevin)—
	168 packets N. S. Wales seeds.
	Edinburgh—
	117 packets N. S. Wales seeds.
	Erlangen, Bavaria—
	37 packets N. S. Wales seeds.
	Freiburg i. B., Germany—
	29 packets N. S. Wales seeds.
	Geneva—
	73 packets N. S. Wales seeds.
Grenada, W. Indies—	Grenada, W. Indies—
1 packet <i>Myrospermum frutescens</i> seed.	3 packets N. S. Wales seeds.
1 packet <i>Prestea montana</i> seeds.	
Groningen, Holland—	Groningen, Holland—
20 packets miscellaneous seeds.	55 packets N. S. Wales seeds.
Guiana, British, Georgetown—	Guiana, British, Georgetown—
1 packet <i>Licuala grandis</i> seeds.	26 packets N. S. Wales seeds.
Hanbury, Chev., The Gardens, La Mortola, Italy—	Hanbury, Chev., The Gardens, La Mortola, Italy—
43 packets miscellaneous seeds.	44 packets N. S. Wales seeds.
	Harvard University, Botanic Garden, Cambridge, Mass., U.S.A.—
	108 packets N. S. Wales seeds.
Hobart, Tasmania—	Hobart, Tasmania—
2 oz. seed <i>Eucalyptus urnigera</i> .	110 packets N. S. Wales seeds.
Jamaica, Botanical Department—	
9 packets miscellaneous seeds.	
	Kew—
	271 packets miscellaneous seeds.
	Eucalyptus seeds.

## Received.

- Madras Agri.-Hort. Society Gardens—  
10 packets miscellaneous seeds.
- Madrid—  
57 packets miscellaneous seeds.
- Montpellier, France—  
35 packets miscellaneous seeds.
- Natal (Durban)—  
1 bag seed, *Tricholoxa rosea*.
- Noumea, New Caledonia Jardin d'Essai—  
1 package seed, *Cerbera manghas*.  
1 " " *Cykokentia Viillardii*.  
1 " " *Pandanus macrocarpa*.  
1 " " *Cycas sp.*  
1 " " *Araucaria Cookii*.
- Odessa, Russia—  
32 packets miscellaneous seeds and specimens of *Ephedra vulgaris*.
- Ootacamund, India—  
10 packets miscellaneous seeds.
- Paris (Museum d' Histoire Naturelle)—  
59 packets miscellaneous seeds.
- Romo—  
17 packets miscellaneous seeds.
- Saharanpur, India—  
3 packets seeds (*Phoenix rupicola*).
- Siena, Italy—  
31 packets miscellaneous seeds.
- Singapore—  
Seeds of *Mezonerium Sumatranum*.  
" *Heptapleurum Hullettii*.
- Trieste, Austria—  
35 packets miscellaneous seeds.
- Trinidad (Botanical Department)—  
Seeds of *Mucuna sp.*  
" *Sabal umbraculifera*.
- Utrecht, Holland—  
32 packets miscellaneous seeds.

## Received.

- Berkeley, California Floral Society—  
20 packets Californian seeds.
- Cape Town. Professor MacOwan, Government Botanist—  
12 packages miscellaneous seeds.
- Columbia, British, Department of Agriculture—  
7 packets miscellaneous seeds.
- New South Wales, Department of Agriculture—  
15 packets miscellaneous seeds.
- Forest Department, New South Wales—  
Seeds of *Acacia implexa*.
- Bell, M., National Park—  
1 packet *Telopea speciosissima*.
- Technological Museum, Sydney—  
Various N. S. Wales seeds.
- Queensland. Colonial Botanist, Brisbane (F. M. Bailey)—  
Fruits of *Costus lamingtonii* and *Fragaria obovata*, var. *papuanum*, from New Guinea.

## Despatched.

- Lausanne, Switzerland—  
55 packets N. S. Wales seeds.
- Lemberg, Austria—  
46 packets N. S. Wales seeds.
- Lille, France—  
45 packets N. S. Wales seeds.
- Lyons, France—  
53 packets N. S. Wales seeds.
- Madrid—  
107 packets N. S. Wales seeds.
- Montpellier, France—  
97 packets N. S. Wales seeds.
- Melbourne—  
47 packets N. S. Wales seeds.
- Nantes, France—  
55 packets N. S. Wales seeds.
- Naples, Italy—  
49 packets N. S. Wales seeds.
- Natal (Durban)—  
164 packets seeds from Australia and other countries.
- Noumea, New Caledonia, Jardin d'Essai—  
103 packets N. S. Wales seeds.
- Odessa, Russia—  
49 packets N. S. Wales seeds.
- Oxford, England—  
63 packets N. S. Wales seeds.
- Palermo, Sicily—  
75 packets N. S. Wales seeds.
- Reunion—  
4 packets N. S. Wales seeds.
- Rome—  
129 packets N. S. Wales seeds.
- Saharanpur, India—  
3 packets N. S. Wales seeds.
- Siena, Italy—  
64 packets N. S. Wales seeds.
- Singapore—  
3 packets N. S. Wales seeds.
- St. Paulo, Brazil—  
47 packets N. S. Wales seeds.
- St. Petersburg, Russia—  
106 packets N. S. Wales seeds.
- Stockholm, Sweden—  
43 packets N. S. Wales plants.
- Tiflis, Caucasus—  
53 packets N. S. Wales seeds.
- Trieste, Austria—  
43 packets N. S. Wales seeds.
- Utrecht, Holland—  
53 packets N.S. Wales seeds.

## OTHER BOTANICAL ESTABLISHMENTS.

## Despatched.

- Berkely, California, Floral Society—  
39 packets N. S. Wales seeds.
- Cape Town Department of Agriculture—  
1 packet *Trigonella suavissima* seed.
- France, Consul-General for, Sydney—  
29 packets grass and fodder plants.
- Haarlem, Holland; Kolonial Museum—  
23 packets N. S. Wales seeds.
- N. S. Wales, Department of Agriculture—  
Seeds of *Trigonella suavissima* to the various experimental farms.
- Technological Museum, Sydney—  
Fruits of Lord Howe Island plant.
- Norway and Sweden, Sydney, Consul for—  
Seeds of six species N.S. Wales *Coniferae*.
- India, the Director of Land Records, N.W. Provinces and Oudh—  
12 packets grass seeds.
- South Australian Agricultural Bureau, Adelaide—  
Seeds of *Laurus camphora*.  
Seeds of *Paspalum dilatatum*.
- S. Australia, National Park, Belair, The Trustees—  
8 packets N. S. Wales seeds.

## Received.

## Despatched.

United States America, Department of Agriculture, Washington—  
193 packets N. S. Wales and other seeds, and 20 packets grass and fodder seeds.  
Vienna Horticultural Society—  
9 packets N. S. Wales seeds.

## FIRMS AND PRIVATE INDIVIDUALS.

## Received.

## Despatched.

- Barling, J., Darlinghurst—  
1 packet seed, *Passiflora Herbertiana*.
- Betts, C. M., Gladesville—  
1 packet seed of a *Spondias*.
- Brown, Rev. Dr. George, 318, George-street—  
2 pods of *Theobroma Cacao* from Samoa.
- Buyzman, Dr., Middleburg, Holland—  
10 packets grass seeds.  
33 packets miscellaneous seeds.
- Carter, Charles, King-street, Sydney,  
5 packets seeds.
- Craig, Rev. J. H., Norton-street, Leichhardt—  
Seeds of *Abrus precatorius*.
- Cullen, Hon. W. P., M.L.C., Mosman—  
6 packets native seeds.
- Cundall, C. H., Manila, Philippine Islands—  
1 packet seed, *Myrmecodia* sp.  
Seeds of three species of palms.
- Fardell, H. L., Kumanota, Japan—  
5 packets miscellaneous seeds
- Ferguson & Co., 19 Royal Arcade—  
Collection of pansy seeds.
- Greenlaw, Mrs., The Kiosk, Government Domain—  
1 bulb of a liliaceous plant, and seeds of five ornamental plants cultivated in New Zealand.
- Griffiths, G. H., 369, George-street—  
1 packet seed, *Arucaria Bivilli*.
- Herbe and Wulle, Messrs., Naples—  
16 packets miscellaneous seeds.
- King, Miss, Homebush  
1 packet seed.
- Lascelles, A., Neutral Bay—  
28 packets of Indian seeds.
- Little, Robert, & Co., Sussex-street—  
1 packet palm seeds from South Sea Islands.
- Menzel, O. E., South Australia—  
23 packets miscellaneous seeds.  
25 packets Australian seeds.
- Moore, F. H., 7, Gresham-street—  
Pods of *Acacia Barnesiana*.  
Seeds of *Acacia* sp.  
Flower-heads of a Composite.  
Seeds of *Trigonella suavissima*.  
A few pods of 7-year old beans, from the Gascoigne District, West Australia.  
Fruits and seeds of several West Australian plants.
- Norton, Hon. Dr., Sydney—  
3 packets seeds.
- Patterson, George, Queensland—  
1 packet seed, *Leucadendron argenteum*.
- Perez, G. V., Teneriffe—  
1 bag of *Tagosaste* (*Cytisus proliferus*) seed.
- Rabe, J., D.D.S., San Francisco—  
12 packets miscellaneous seeds.
- Robinson, Isaac, Norfolk Island—  
1 bag *Areca Baucri* seed.  
3 bags *Arucaria excelsa* seed.
- Sander, F. & Co., St. Albans, England—  
22 packets miscellaneous seeds.
- Zouch, C. G., Sydney—  
12 packets miscellaneous seeds.
- Buyzman, Dr., Middleburg, Holland—  
18 packets N. S. Wales seeds.
- Cullen, Hon. W. P., M.L.C., Mosman—  
3 packets N. S. Wales seeds.
- Cundall, C. H., Manila, Philippine Islands—  
32 packets N. S. Wales seeds.
- Dall, James, Collingwood, New Zealand—  
Seeds of *Astrebla pectinata* and *Tricholena rosea*.
- Edwards, R. S., Cornuna, Canada—  
Seeds of *Telopoa speciosissima*.
- Fardell, H. L., Kumanota, Japan—  
6 packets N. S. Wales seeds.
- Geissler, Max, Nurseryman, Görlitz, Silesia, Germany—  
50 packets N. S. Wales seeds.
- Harvey, R. Inglis, Manly—  
10 packets salt-bush seed.  
1 packet tree-lucerne seed.
- Kerkhoven, A. E., Java—  
30 packets N. S. Wales Eucalyptus seed.  
6 " " " Acacia seeds.  
18 packets miscellaneous N. S. Wales seeds.
- Lascelles, A., Neutral Bay—  
Seeds of *Doryanthes Palmeri*.
- Longe, Rev. F. E. G., Suffolk, England  
14 packets N. S. Wales seeds.
- Menzel, O. E., South Australia—  
30 packets N. S. Wales seeds.
- Perez, G. V., Teneriffe—  
11 packets N. S. Wales Acacia seeds.
- Runge, A., Samatra—  
17 packets N. S. Wales seeds.
- Sander, F. & Co., St. Albans, England—  
8 packets miscellaneous seeds.
- Steel, Thomas, care of Colonial Sugar Refining Company, Sydney—  
Box ripe fruits of *Ficus* for experimental purposes.
- Tate, W. C., Oporto, Portugal—  
22 packets N. S. Wales seeds.
- Walker, W. H., Tenterfield—  
1 packet *Trigonella suavissima* seed.  
1 " " *Ammophila arundinacea* seed.
- Wellford, Dr., Selangor, Straits Settlements—  
17 packets N. S. Wales seeds.
- Zouch, C. G., Sydney—  
1 packet *Trigonella suavissima* seed.

## Living Plants Received and Despatched.

Received.	Despatched.
Adelaide, Botanic Gardens— Collection of succulents and willows.	
Brisbane, Botanic Gardens— 3 plants <i>Dendrobium speciosum</i> , var. <i>Hilli</i> .	Bendigo, Public Gardens— Piece of Lace-plant ( <i>Onc. randra</i> ).
Colonial Sugar Refining Co., Sydney— Fiji plants for experimental purposes.	Bergin, Mr., Sydney— Roots of ramie.
Deane, Henry, M.A., Engineer-in-Chief for Railways, Sydney— Cuttings of <i>Thunbergia coccinea</i> .	
Dublin (Glasnevin) Royal Botanic Gardens— Bulbs of 18 varieties <i>Nerine</i> .	
Fiji, Botanic Station— 1 case <i>Piper methysticum</i> .	Fiji, Botanic Station— 15 miscellaneous plants.
Gelding, John, Sydney— 6 varieties of <i>Canna</i> .	
Gregson, Jesse, Newcastle— 1 case <i>Dendrobium Kingianum</i> , and collections of other native orchids.	
Hore, Captain, s.s. "John Williams"— 15 miscellaneous plants from South Sea Islands.	
	Kanematsu, F., 8, O'Connell-street, Sydney, for the Imperia Gardens, Tokyo, Japan— 25 species of orchids.
	Kerkhoven, A. E., Java— 41 miscellaneous plants.
	Kew, Royal Gardens— 22 miscellaneous plants.
Lascelles, A., Neutral Bay— 1 plant, <i>Indigofera pulchella</i> .	
McManamey, H., Mortlake— 4 plants, <i>Nepenthes Kennedyi</i> , from Possession Island, Torres Straits—	
Melbourne, Botanic Gardens— Living specimens of <i>Opuntia</i> .	
Natal (Durban) Botanic Gardens— A specially valuable collection of 214 miscellaneous plants and 22 bulbs.	
Noumea, New Caledonia, Jardin d'Essai— 3 plants <i>Jatropha manihot</i> .	Noumea, New Caledonia, Jardin d'Essai— 2 cases, 6 bundles plants.
70 " <i>Aracaria Cookii</i> .	
Queensland Colonial Botanist, Brisbane (F. M. Bailey)— Ginger Rhizomes from New Guinea Rhizomes of <i>Nymphaea Lotus</i> (white variety.)	
	Robinson, Isaac, Norfolk Island— 48 miscellaneous plants.
Rockhampton, Botanic Gardens— 30 plants <i>Nymphaea gigantea</i> .	
Sander, F. and Co., St. Albans, Herts, England— 109 miscellaneous plants and 180 bulbs.	Sander, F. and Co., St. Albans, Herts, England— 18 miscellaneous plants.
Seligman, Dr., London— 1 plant <i>Myrmecodia armata</i> , and 2 tubers from Saibac Island, collected by the donor.	
Smith, Mrs., Goderich, Bayswater Road, Sydney— Valuable collection of Orchids, &c., as per list:—	
2 <i>Brassia Lawrenceana</i> .	
28 <i>Calanthe</i> var.	
13 <i>Cattleya</i> var.	
1 <i>Calogyne cristata</i> .	
1 <i>Calogyne pauciflora</i> .	
1 <i>Cymbidium pendulum</i> .	
1 <i>Cypripedium Harrisianum</i> .	
1 " <i>grande</i> ( <i>selenipedium</i> .)	
2 " <i>Spicerianum</i> .	
1 " <i>calophyllum</i> .	
1 " <i>longifolium</i> ( <i>selenipedium</i> .)	
" " (Red " ".)	
1 " <i>Scdeni</i> ( <i>selenipedium</i> .)	
1 " <i>seltigerum</i> .	
1 " <i>Lecanum</i> , var. <i>superbum</i> .	
1 " <i>Chamberlainianum</i> .	
1 " <i>villosum</i> .	
1 " <i>insigne</i> , var. <i>maulei</i> .	
1 " <i>marmorophyllum</i> .	
1 " <i>barbatum</i> .	
1 " " var. <i>nigrum</i> .	
1 " <i>Lawrenceanum</i> .	
1 " <i>bellatulum</i> .	
2 " unnamed.	
2) <i>Dendrobium nobile</i> .	
1 " <i>imbriatum oculatum</i> .	
3 " <i>bigibbum</i> .	
1 " <i>primulinum</i> .	
5 " <i>densiflorum</i> .	
1 " <i>Farmeri</i> .	
2 " <i>untatum</i> .	
1 " <i>Devonianum</i> .	
1 " <i>moschatum</i> .	
1 " <i>Brymerianum</i> .	
1 " <i>Johannis</i> .	

Received.	Despatched.
1 <i>Dendrobium cretaceum</i> .	
2     " <i>aggregatum</i> .	
1     " <i>chrysanthum</i> .	
1     " <i>albo-sanguineum</i> .	
1     " <i>Parishii</i> .	
2     " <i>Pierardi</i> .	
1     " <i>sp.</i>	
2 <i>Eria sp.</i>	
4 <i>Lolia var.</i>	
2 <i>Maxillaria Harrisonii</i> .	
2 <i>Phaius maculata</i> .	
1     " <i>assamica</i> .	
1 <i>Peristeria elata</i> .	
4 <i>Saccolabium sp.</i>	
1 <i>Vanda gigantea</i> .	
1 <i>Phalaenopsis Schilleriana</i> .	
1 <i>Caladium Verdi</i> .	
1     " <i>Raymond Lemoinier</i>	
1     " <i>unnamed</i> .	
1 <i>Croton sp.</i>	
1 <i>Cordyline Knausii</i> .	
1     " <i>Knoxii</i> .	
1 <i>Torenia</i> .	
8 <i>Gesnera</i> seedlings.	
1 <i>Davallia sp.</i>	
2 <i>Microlepia hirta cristata</i> .	
1 <i>Aspidium sp.</i>	
4 <i>Gaillardia</i> , James Kelway.	
2 <i>Hemerocallis</i> .	
1 <i>Primula</i> .	
1 <i>Aurum</i> .	
1 <i>Richardia</i> , white.	
1 <i>Rhapis humilis</i> .	
Sydney Technological Museum, (R. T. Baker, Curator.)	Sydney Technical College. Fresh specimens for the Botany class, as required.
1 plant <i>Acianthus fornicatus</i> .	
1     " <i>Corysanthes bicarata</i> .	
2     " <i>Cheilanthes tenuifolia</i> .	
3 tubers <i>Caladenia clavigera</i> .	
4 <i>Pterostylis sp.</i>	
Tait, W. C. Oporto, Portugal.	
Bulbs of mixed wild Portuguese Narcissus.	
<i>Pseudo-narcissus</i> (var. <i>Garret</i> .)	
<i>Triandrus Johnstoni</i> .	
Natural Hybrid.	
Thompson Mr., care of Rev. Mr. Plume, Hornsby Junction—	
14 small native orchids.	
Wharton, Mrs., Yokohama, Japan—	
2 bulbs each of 17 species Japanese lilies.	
Westmacott, Mr., Macquarie-street—	
1 tuber from Vavau, Tonga.	
	Whitelaw, Thomas, Melbourne—
	Cuttings of <i>Alternanthera amara</i> .
	"   " <i>versicolor</i> .
	Whitelegge, Thomas, Sydney—
	56 miscellaneous plants.

*Living Plants despatched from 1st June to 31st December, 1898.*

Public Schools, number of consignments . . . . .	299
Roman Catholic Churches, number of consignments . . . . .	26
Roman Catholic Convents, number of consignments . . . . .	23
Church of England Churches, number of consignments . . . . .	20
Wesleyan Churches, number of consignments . . . . .	14
Presbyterian Churches, number of consignments . . . . .	10
Union Churches, number of consignments . . . . .	3
Parks and Recreation Reserves, number of consignments . . . . .	58
Goals, Court-houses, and Police Lock-ups, number of consignments . . . . .	36
Railway Stations, number of consignments . . . . .	35
Municipal Councils and Public Streets, number of consignments . . . . .	45
Post Offices, number of consignments . . . . .	18
Hospitals, number of consignments . . . . .	14
Cemeteries, number of consignments . . . . .	2
Miscellaneous, including Experimental Farms, Sewage Farms, Military Stations, also a few private persons by way of exchange, number of consignments . . . . .	21
Total . . . . .	624
Made up as follows :—	
Trees . . . . .	23,845
Shrubs . . . . .	19,074
Miscellaneous plants . . . . .	2,720
Total . . . . .	45,639

Plants distributed for public purposes.

*Herbarium Specimens exchanged.*

Received.	Despatched.
Australian Museum, Sydney—	
65 species of Lichens and Algae from Mount Kosciusko, Port Jackson, and New Zealand.	
37 species Phanerogams and Ferns from Blue Mountains, N. S. Wales, Lord Howe Island, and China.	
2 Cones, branches, and timber of <i>Erromanga (Dammara)</i> Pine, New Hebrides.	
Tree blazed with inscription :	



*Received.*

- Baagoe, J., Næstved, Denmark—  
30 species of European *Potamogetons*.
- Biltmore Herbarium, North Carolina, U.S.A.—  
500 species North American plants.
- Buitenzorg, Java Botanic Gardens—  
102 Carpological specimens, chiefly of tropical plants.
- Berkeley, California, University of California—  
472 specimens of North American plants.
- Cape Town, Government Botanist—  
230 species South African plants. (Professor MacOwan's contributions contain many of his numbered types, so that our Cape herbarium may be of standard record, and usable with the published flora.)
- Copineau, Mons. C., and Mouillefarine, Mons. M., France—  
839 species of European plants.
- D'Alton, St. Elroy, Nhill, Victoria—  
16 species of rare Victorian plants (mallee country).
- Menzel, O. E., S. Australia—  
81 species of exotics and South Australian plants.  
100 species of North American plants.
- Queensland Colonial Botanist, Brisbane—  
394 species of Queensland plants.
- Rodway, L., Hobart—  
120 species of Tasmanian plants.
- Technological Museum, Sydney—  
133 herbarium specimens.  
48 species fruits.
- Tisdall, H. T., Melbourne—  
25 species of Victorian algae.
- Victoria, Conservator of Forests, Melbourne—  
1 case cones and seeds.
- Victoria, National Herbarium, Melbourne—  
Miscellaneous Australian plants.
- Vienna, Naturhistorisches Hof Museum—  
100 species of Cryptogams.
- Walter, C., Melbourne—  
603 specimens of Victorian plants.  
180 specimens of West Australian plants.
- Whitelegge, Thomas, Sydney—  
60 species of N. S. Wales Hepaticæ, including types of new species described by Carrington, Pearson, and Stephani; also plates and sheets of illustrations of new Hepaticæ.

*Despatched.*

- Baagoe, J., Næstved, Denmark—  
Australian species of *Potamogeton*.
- Berlin Botanical Museum—  
429 species of Australian plants.
- Biltmore Herbarium, North Carolina, U.S.A.—  
434 species of Australian plants.
- Berkeley, California, University of California—  
34 species of *Eucalyptus*.  
71 species of *Acacia*.
- Cape Town, Government Botanist—  
416 species of Australian plants.
- Cape Colony, Conservator of Forests (Eastern Division)—  
19 species of N. S. Wales *Eucalyptus*.
- Cape Colony, Conservator of Forests (Western Division)—  
19 species of N. S. Wales *Eucalyptus*.
- Copineau, Mons. C., and Mouillefarine, Mons. M., France—  
780 species of Australian plants.
- D'Alton, St. Elroy, Nhill, Victoria—  
36 species of N. S. Wales plants.
- Darwin, Prof. Francis, Cambridge, England—  
9 botanical specimens.
- Heckel, Prof. E., Institut Coloniale, Marseille, France—  
100 species of N. S. Wales plants.
- Herb and Wulle, Messrs., Naples, Italy—  
20 species of Australian fruits and seeds.
- Kew Royal Gardens—  
Several species of Lord Howe Island and rare N. S. Wales plants.
- Menzel, O. E., S. Australia—  
181 species of N. S. Wales plants.
- Natal (Durban), Botanic Gardens—  
100 species of N. S. Wales plants.
- Queensland, Colonial Botanist, Brisbane—  
33 species of N. S. Wales *Eucalyptus*.
- Rodway, L., Hobart—  
148 species N. S. Wales plants.
- Technological Museum, Sydney—  
43 herbarium specimens.
- Tisdall, H. T., Melbourne—  
48 species of Australian and African Proteaceæ.  
39 species of Australian and exotic Rutaceæ.
- United States, Department of Agriculture, Washington, D.C., U.S.A.—  
Parcel of fungi.
- Victoria, Conservator of Forests, Melbourne—  
63 species of fruits and cones, chiefly Australian.
- Victoria, National Herbarium, Melbourne—  
Miscellaneous plants, chiefly exotics.
- Vienna, Naturhistorisches Hof Museum—  
100 species N. S. Wales plants.  
34 species N. S. Wales *Eucalyptus* and certain Cryptogams.
- Walter, C., Melbourne—  
210 specimens of N. S. Wales plants.
- Western Australia Bureau of Agriculture, Perth—  
100 specimens of weeds naturalised in Australia.  
200 species N. S. Wales plants.

*Herbarium specimens presented.*—In addition to the very large number of correspondents of the Botanic Gardens who send specimens for identification, following is a list of the principal contributors to the herbarium during the past year :—

- Alkin, Rev. T. V., Campbelltown.
- Brown, F. H., Port Moresby, New Guinea—  
125 specimens of plants from the Astralobe Range.
- Campbell, J. F., Walcha.
- Gregson, Jesse, Mount Wilson.
- Griffiths Bros., George-street—  
Samples of Kola Nut.
- Groom, Miss, Sydney—  
Specimens of Tasmanian plants.
- Hamilton, A. G., Mount Kembla.
- Hore, Captain, a.s. "John Williams"—  
Coral blocks, with mosses, from Funafuti and Raratonga.
- Palmer, E. G. W., Lawson.
- Rumsey, H. J., Barber's Creek.

*Herbarium specimens purchased.*

250 specimens of 40 species, also 447 species of South Australian plants.  
Six bound volumes of Harvey's Australian seaweeds, containing 493 species determined by him.  
1,162 species of rare South African plants (Schlechter's collections).

*Publications acquired by gift.*

## REPORTS AND OTHER PUBLICATIONS OF BOTANIC GARDENS.

## Europe.

- Amsterdam, Botanic Gardens. Ritzema Bos, Prof. J. (and G. Stals). Tijdschrift over Plantenziekten. Derde Jaargang, 1897. (From the Director.)
- Kew Bulletin of Miscellaneous Information for the year 1898, also Kew Bulletin additional series, No. 1. (From the Director.)
- Hooker's *Icones Plantarum*. New series. Vol. vi, Part III, April, 1898. (From the Bentham Trustees.)
- Marseilles. Annales de l'Institut Colonial de Marseille. Vols. iii and iv. Vol. 5, Fasc. 1. (From Prof. E. Heckel.)
- Palermo, Italy. Revisione Monografica della specie del Genera *Nigella*. (A. Terracciano.) Svo., pp. 57. 1897-8.
- In nettarii estranzuale nelle (Bombaceae)*. Tav. xv-xviii. Svo., pp. 55. (Estratto dalle Contribuzioni alla biologia vegetale. Vol. ii, Fasc. ii. Palermo, 1898.)
- Siena, Italy. *Bulletino del Laboratorio Botanico della R. Università di Siena*. Anno 1, Fasc. 1, 2 and 3.
- Tiflis, Caucasus. *Bulletin of the Botanic Gardens*. Vol. ii. (1897.)

## Asia.

- Buitenzorg, Java. Botanic Gardens. Koningsberger, Dr. J. G. Eerste overzicht der Schadelijke en Nuttige Insecten van Java.
- Greshoff, M. Tweede verslag van Het Onderzoek naar de Plantenshaffen van Nederlandsch-Indië. (From the Director.)
- Koorders, S. H. and Valetton, Th. Bijdrage No. 1, tot de Kennis der Boomsoorten van Java. (Addimenta ad cognitionem Floræ Javanicæ auctoribus. Pars. I. Arboreæ.) Batavia, 1894.
- Ceylon. Circulars of the Royal Botanic Gardens. Nos. 1 to 8. Report of the Director for, 1897. (From the Director.)
- Calcutta. King, G. and Pantling, R. *Annals of the Royal Botanic Gardens, Calcutta. The Orchids of the Himalaya*. Vol. viii, Part I, letterpress; Vol. viii, Part II, plates of *Melaxideæ*; Vol. viii, Part III, plates of *Epidendræ* and *Vanda*; Vol. viii, Part IV, plates of *Listræ* and *Cypripediæ*.
- Proceedings of the Agri-Horticultural Society of Madras for October, 1897, to June, 1898. Report of the Annual Meeting of the Agri-Horticultural Society of Madras, held on 28th March, 1898. (From the hon. secretary.)
- Saharanpur. Report on the progress and condition of the Government Botanic Gardens, Saharanpur and Arnigadh, for the year ending 31st March, 1898. (From the Superintendent.)
- Singapore.—Report on the Botanic Gardens for the year 1897. (From the Director.)

## Africa.

- Natal (Durban) Botanic Gardens—  
New Natal Plants, Vol. i, Part I and II; by J. Medley Wood and Maurice S. Evans.  
Report on Natal Botanic Gardens for the year 1897. Colonial Herbarium Report for the year 1897. (From the Curator.)
- Old Calabar. Botanical Station. Annual Report for the year 1895-6. (From the Curator.)
- Zanzibar. Department of Agriculture. Annual Report of the Department of Agriculture for the year 1897. (From the Director.)

## America.

- Arechavaleta, J. *Anales del Museo Nacional de Montevideo*, Tome ii, Fasc. VIII; Tome iii, Fasc. IX. (From the author.)
- California. University of Berkeley, Cal. *Staphia*; a new genus of melicæ and other noteworthy grasses; by J. Burt Davy. (From the author.)
- Missouri. Ninth Annual Report of the Missouri Botanic Gardens, St. Louis. (From the Director.)
- Harvard College, U.S.A. Annual Report of the President and Treasurer. (From Professor Goodale.)
- Annual Report on public buildings and grounds for 1872 and 1873. Annual report upon the improvement and care of the public buildings and grounds in the district of Columbia and Washington Aqueduct for the years 1874 to 1897. (From the Board of International Exchanges, Sydney.)
- Barbadoes. Botanical Station—  
Report of the results obtained on the experiment fields at Dodds' Reformatory, 1897.  
Occasional Bulletin of miscellaneous information, No. 9.  
(From the Superintendent.)

- British Guiana (Georgetown, Demerara). Report on the Botanic Gardens and their work for the year 1896-7. (From the Superintendent.)
- Jamaica. Bulletin of the Botanical Department of Jamaica, 1898. (From the Director.)
- Trinidad. Royal Botanic Gardens—  
Annual Report for the year 1897.  
Bulletin of miscellaneous information, 1898.  
(From the Superintendent.)

## AUSTRALASIAN SCIENTIFIC SERIALS.

- The Australian Journal of Pharmacy for 1898. (From the editor.)
- The Pharmaceutical Journal of Australasia. (From the editor.)
- The Victorian Naturalist. The Journal and Magazine of the Field Naturalists' Club of Victoria, 1898.
- Proceedings of the Royal Society of Victoria, Vol. x (new series), Parts I and II, 1898. (From the Society.)
- Proceedings of the Royal Society of Queensland, Vol. xiii. (From the Society.)

## MISCELLANEOUS SERIALS.

- The Bulletin of Pharmacy, 1898. From Messrs. Parke, Davis, & Co., Detroit, U.S.A.
- Victorian Silk-growing Association, Melbourne. The Cocoon. (From the Association.)
- Quarterly record of the Royal Botanic Society of London, January-March, 1898. (From the Society.)
- The Journal of the Royal Horticultural Society, London, Vol. xxi, Part III, 1898, Vol. xxii, Parts I and II, 1898. (From the Society.)
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- Bureau of Agriculture.  
1. The Journal of Agriculture and Industry of South Australia.  
2. Report of the Minister of Agriculture for 1897-98. (From the Agricultural Bureau.)

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- Department of Agriculture.  
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2. Journal of the Bureau of Agriculture, Vol. iv, Nos. 12 to 20.  
3. Official Report of the Sixth Annual Conference of Producers. (From the Department.)
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2. Pamphlet Cape of Good Hope as a centre for profitable fruit-growing and for export.  
3. Monsonia: The Cape remedy for dysentery.  
4. Manual of practical orchard work at the Cape.  
5. Reports of Agricultural Assistants at Cape Town, Grahamstown, and Stellenbosch, 1895. The Agricultural Journal of the Cape Good Hope for 1898.  
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2. Nut grass.
3. The Russian thistle. (Revised edition.)
5. Giant knotweed or sachaline.
6. Standards of the purity and vitality of agricultural seeds.
7. Tumbling mustard. (Second edition.)
8. Crimson clover hair balls.
9. Wild garlic (*Allium vineale*, L.)
10. Three new weeds of the mustard family.
11. The vitality of seed treated with carbon bisulphide.
12. The camphor tree (*Cinnamomum camphora*, Nees and Eberm.). (Revised.)
13. Observations of recent cases of mushroom poisoning in the district of Columbia.
14. Dadders infesting clover and alfalfa.
15. Horse-radish.

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  20. Principal poisonous plants of the United States. (By V. K. Chesnut.)
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  2. Hairy vetch, sand vetch, or Russian vetch (*Vicia villosa*).
  3. Saltbushes.
  4. The renewing of worn-out native prairie pastures.
  5. Cowpeas. (Revised edition.)
  6. The Cultivated Vetches. (Revised edition.)
- Grass gardens. (Reprint from Year Book, U.S. Department of Agriculture, 1895. (By F. Lamson-Scribner.)

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  5. A report upon the grasses and forage plants of the Rocky Mountain Region. (By P. A. Rydberg and C. L. Shear.)
  6. Grasses and forage plants of the Dakotas. (By Thomas A. Williams.)
  8. Studies on American Grasses:—
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    - (2.) Leaf structure of *Journa* and *Eragrostis obtusiflora*. (By Miss E. L. Smith.)
  9. Notes on grasses and forage plants of Iowa, Nebraska, and Colorado. (By L. H. Pammel.)
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2. The California vine disease. A preliminary report of investigation. (By Newton B. Pierce, 1892.)
3. Report of the experiments made in the treatment of plant diseases. (By B. T. Galloway, 1893.)
4. Experiments with fertilizers for the prevention and cure of peach yellows, 1891-92. (By Erwin F. Smith.)
5. The pollination of pear flowers. (By Merton B. Waite, 1895.)
15. Some edible and poisonous fungi. (By Dr. W. G. Farlow.)

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11. Facts and figures regarding our forest resources, briefly stated.
12. Southern Pine—Mechanical and physical properties.
13. Forest-fire Legislation in the United States.
14. Is protection against forest fires practicable?
15. Summary of mechanical tests on thirty-two species of American woods.
16. Age of trees and time of blazing determined by annual rings.
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18. Progress in timber physics. (Influence in size, &c.)
19. Progress in timber physics. (Bald Cypress.)
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  2. Prune culture in the Pacific North West. (Revised.)
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  11. The Rape-plant: its history, culture, and uses. (By Thomas Shaw.)
  14. Fertilisers for cotton. (By J. M. M'Bryde.)
  15. Some destructive potato diseases. What they are, and how to prevent them. (By B. T. Galloway.)
  16. Leguminous plants for green manuring and for feeding. (By E. W. Allen.)
  17. Peach yellows and peach rosette. (By Erwin F. Smith.)
  18. Forage plants for the south. (By S. M. Tracy.)

19. Important insecticides : directions for their preparation and use. (Third revised edition.) (By C. L. Marlatt.)
  20. Washed soils : how to prevent and reclaim them.
  21. Barnyard manure. (By W. H. Beal.)
  22. The feeding of farm animals. (By E. W. Allen.)
  23. Foods : nutritive value and cost. (By W. O. Atwater.)
  24. Hog cholera and swine plague. (By D. F. Salmon.)
  25. Peanuts : culture and uses. (By R. B. Handy.)
  26. Sweet potatoes : culture and uses. (By J. F. Duggar.)
  27. Flax for seed and fiber in the United States. (By C. R. Dodge.)
  28. Weeds : and how to kill them. (By L. H. Dewey.)
  29. Souring of milk, and other changes in milk products. (Revision of Bulletin, No. 9.)
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  31. Alfalfa, or lucerna. (By Jared G. Smith.)
  32. Silos and silage. (By Charles S. Plumb.)
  33. Peach growing for market. (By Erwin F. Smith.)
  34. Meats : composition and cooking. (By C. D. Woods.)
  35. Potato culture. (By J. F. Duggar.)
  36. Cotton seed and its products. (Condensed from original articles by members of the office force and others.)
  37. Kaffir corn : characteristics, culture, and uses. (By G. C. Georgeson.)
  38. Spraying for fruit diseases. (By B. T. Galloway.)
  39. Onion culture. (By R. L. Watts.)
  40. Farm drainage. (By C. G. Elliott.)
  41. Fowls : care and feeding. (By G. C. Watson.)
  42. Facts about milk. (By R. A. Pearson.)
  43. Sewage disposal on the farm, and the protection of drinking water. (By Theobald Smith.)
  44. Commercial fertilizers : composition and use. (By E. R. Voorhees.)
  45. Some insects injurious to stored grain. (By F. H. Chittenden.)
  46. Irrigation in humid climates. (By F. H. King.)
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  50. Sorghum as a forage crop. (By T. A. Williams.)
  51. Standard varieties of chickens. (By G. E. Howard.)
  52. The sugar beet : culture, seed development, manufacture, and statistics. (By H. W. Wiley.)
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  59. Bee keeping. (By Frank Benton.)
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  67. Forestry for farmers. (By B. E. Fernow.)
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  72. Cattle ranges of the south-west. A history of the exhaustion of the pasturage and suggestions for its restoration. (By H. L. Bentley.)
  75. The grain smuts : how they are caused, and how to prevent them. (By Walter T. Swingle.)
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- Botanical Exchange List of the Alabama Biological Survey.
- Arizona (Tucson).  
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4. Waters and water analysis.  
6. Soils and waters.  
7. Canaigre.  
9. Insects and insecticides.  
10. Experimental work at Willcox.  
12. Preliminary report of observations on the Crown knot.  
20. Arizona weather.
23. Sugar beets.  
27. Arizona weather and climate.  
28. Salt River Valley soils.  
California (Berkeley).  
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105. (1) The Canaigre, or Tanners' Dock.  
(2) Australian saltbushes for alkali soils.  
106. Distribution of seeds and plants.  
107. The Russian thistle in California.  
108. The distribution of salts in alkali soils.  
109. Distribution of seeds and plants.  
110. The study of human foods and practical dietetics.  
111. The work of the College of Agriculture and experiment stations.  
112. Distribution of seeds and plants.  
113. Suggestions for the use of disinfectants.  
114. Sowing Australian saltbushes.  
115. Directions for taking soil samples.  
116. The Californian vine hopper.  
117. The control of temperature in wine fermentation.  
118. Distribution of seeds and plants.  
119. Vine pruning.  
120. The olive knot.  
121. The conservation of soil moisture and economy in the use of irrigation water.  
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4. (1) Methods of preventing smut in wheat and oats.  
(2) Carbon bisulphide as a squirrel exterminator.  
(3) A new squirrel exterminator.  
6. Annual Report for 1894.  
7. Insecticides and spraying.  
8. Water and water analyses.  
9. (1) Idaho soils.  
(2) Miscellaneous analyses.  
11. Smuts and rusts of grains in Idaho.  
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13. Meteorology.  
14. Twelve of Idaho's worst weeds.  
15. Report for the years 1897-8.  
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(2) Proposed chemical work.  
(3) Grasses and other forage plants.  
(4) Chinch bug remedies.  
(5) Arsenic experiments.  
(6) Promising new cherries.  
3. Characteristics of hardy and tender fruit trees.  
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(2) A study of leaf anatomy of some species of genus *Bromus*.  
(3) A comparative study of the leaves of *Lolium* and *Bromus*.  
(4) An anatomical study of the leaves of some species of the genus *Andropogon*.  
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7. Experiments with corn.  
8. Iowa station milk test.  
9. Comparative value of fodder plants.  
10. Our rusted and blighted oats and barley in 1890.  
11. Experiments in making and storing hay.  
12. Experiments with potatoes.  
13. Experiments in feeding for milk.  
14. Effect of food upon the quality of milk.  
15. Sugar beet growing.  
16. Flax seed meal and oil meal.  
17. Feeding beets and potatoes for butter.  
18. Experiments with sheep.  
20. Steer feeding.  
21. Investigation in cheese-making.  
22. A study in churning.  
23. Soiling.  
24. Steer and heifer beef.  
26. The Russian thistle.  
27. Soiling crops in 1894.  
28. Angus and short-horn feeding experiment, &c.  
29. Investigation of bovine tuberculosis.  
30. Treatment of currants and cherries to prevent spot diseases.  
32. Entomological work for 1895.  
35. Lamb feeding.  
36. Soil moisture.

37. Sugar beet investigations.
38. The Russian thistle.
39. Weeds.
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- Bulletin No. 7. Experiments with wheat.
8. Preliminary reports on smuts on Oats.
10. Notes on conifers.
11. Experiments with wheat.
12. Preliminary experiments with fungicides for stinking smuts of wheat.
13. Experiments with oats.
14. Winter protection of peach trees, and notes on grapes.
15. Additional experiments and observations.
16. Experiments with sorghum and sugar beets.
17. Crossed varieties of corn, second and third years.
18. Experiments with forage plants.
19. Germination of weeviled peas.
71. Experiments with wheat.
72. Growth of young stock.
73. Fruit trees.
74. Experiments with oats.
75. Root development.
76. Fifth report on Kansas weeds. Vegetative propagation of perennial weeds.
77. Some insects injurious to the orchard.
78. Sugar beets.

Kentucky (Lexington.)

- Bulletin No. 2. Corn fodder and food for stock.
32. Strawberries and vegetables.
33. Corn experiments.
34. Commercial fertilizers.
35. Experiments with wheat and oats.
37. Experiments with potatoes.
38. Vegetables, Strawberries.
39. Mares.
40. Some common pests of the farm and garden.
41. Commercial fertilizers.
42. Experiments with wheat and oats.
43. Commercial fertilizers.
44. Bordeaux mixture for apple pests.
45. Field experiments with fertilizers.
46. Commercial fertilizers.
47. The pests of shade and ornamental trees.
49. Destructive locusts in Kentucky.
50. Fruit growing in Kentucky.
51. Commercial fertilizers.
52. Commercial fertilizers.
53. Spraying for Codlin moth.
54. Notes on vegetables.
55. Field experiments with fertilizers.
56. Analysis of commercial fertilizers.
57. Wheat experiments.
58. Cutworms in Kentucky.
59. Spraying experiments in 1895.
60. Analysis of commercial fertilizers.
61. Potatoes.
62. Strawberries.
63. Tobacco.
64. Analysis of commercial fertilizers.
69. Wheat.
70. The woolly mullein.
71. Official analysis.
72. Potatoes.
73. Strawberries.
74. (1.) The Chinch bug.  
(2.) Earthworms, a source of gapes in poultry.
75. Commercial fertilizers.
76. Commercial fertilizers.
77. Wheat.

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Minnesota (St. Anthony's Park.)

- Bulletin No. 36. Miscellaneous analyses of feeding stuffs.
37. The Chinch bug.
38. Garden tillage and implements.
39. Potatoes.
40. Grain and forage crops.
41. Soils.
42. The composition, digestibility, and food values of potatoes.
43. Insects injurious in 1895.
44. Fattening steers and lambs in winter.
45. Potatoes.
46. (1) Forage and grain crops.  
(2) Cross rotation experiments.  
(3) Smut in wheat.  
(4) Three annual weeds.  
(5) Tillage experiments.  
(6) Meteorological records.
47. Flax.
49. Rate of increase on the cut-over timber lands of Minnesota.

50. Progress at several experiment farms in 1896.
56. Sugar beet.
57. Fattening lambs in winter.
58. Fattening steers in winter.
52. Fattening lambs and wethers in winter.
60. Beef-cattle and swine.
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- Bulletin No. 38. Peach-growing.
39. The influence of width of tire on draft wagon.
40. The sugar beet.
41. The San Jose scale in Missouri.
42. A new orchard pest. The fringed-wing apple-bud moth.
43. (1) Winter forcing of asparagus in the open field.  
(2) Asparagus culture in Missouri.

Nebraska (Lincoln.)

- Bulletin No. 50. Notes on pruning.
51. Observations on the Codlin moth.
52. Cornstalk disease.
53. A preliminary report on experiments with forage crops.
54. The effects of certain methods of soil treatment upon corn crops.
- Eleventh Annual Report.

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- Bulletin No. 40. Strawberries.
46. An experiment with steam-drill and methods of road maintenance.
48. Ninth Annual Report.
49. The inspection of fertilizers.
50. Dehorning cattle.
51. Sweet corn for New Hampshire.
52. Growing musk melons in the north.
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- Bulletin No. 1. History of organization and proposed work of the station.
2. The investigation of the independence of plant life.
3. Meteorological Report for 1898.
4. Meteorological Report for January, February, and March, 1889.
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6. Meteorological Report for July, August, and September, 1889.
8. The codlin moth.
10. The pear and cherry slug.
11. Plant life infesting the apple.
14. Potato experiments.
15. Dodder.
16. The Creamery Industry.
17. The woolly aphis of the apple.
18. Cheese and its manufacture.
19. Sugar beets.
20. (1) Potatoes. (2.) Tobacco.
21. Nevada weeds.
22. Nevada weeds.
23. Sugar weeds.
24. Early Flora of the Tucker Valley.
25. Irrigation.
26. Feeding stuffs.
27. (1) Grain. (2) Potatoes.
28. An important elm scale.
29. The San Jose scale.
30. Wheat cutting at different dates.
31. Texas cattle fever.
32. Sugar beets.
33. Field notes on some Nevada grasses.
34. Drinking water.
35. Hops.
36. Some injurious insects of W. Nevada.
37. Sugar beets. Notes for 1897.

New York (Cornell University.)

- Bulletin No. 39. Creamery and aerating milk.
40. Removing tassels from corn.
41. On the comparative methods of steam and hot water for greenhouse heating.
49. Sundry investigations for the year 1897.
53. Oedema of the tomato.
55. Greenhouse notes for 1892-3.
58. The four-lined leaf-bug.
61. Investigations of the year 1893.
64. On certain grass-eating insects.
69. Hints on the planting of orchards.
71. Apricot growing.
72. The cultivation of orchards.
73. Leaf cure and plum pockets.

74. Impressions of the peach industry in Western New York.
75. Peach yellows.
76. Some grape troubles of Western New York.
77. The grafting of grapes.
78. The cabbage root maggot.
79. Varieties and leaf blight of the strawberry.
80. The quince in Western New York.
81. Black-knot of plums and cherries and methods of treatment.
82. Experiments of tuberculin on non-tuberculous cows.
83. A plum scale in Western New York.
84. The recent apple failures of Western New York.
85. Whey butter.
87. The dwarf Lima beans.
92. On the effect of feeding fat to cows.
93. The cigar-case bearer in Western New York.
95. Winter musk-melons.
96. Forcing house miscellanies.
97. Studies in artificial cultures of entomogeneous fungi.
98. Cherries.
100. Evaporated raspberries in Western New York.
101. Notions about the spraying of trees, with remarks on the canker worm.
102. General observations respecting care of fruit trees, with some reflections upon weeds.
103. Soil depletion in respect to the care of fruit trees.
104. Climbing cut worms.
105. Tests of cream separators.
106. Revised opinions of the Japanese plum.
107. Wire worms and the bud moth.
136. Chrysanthemums.
137. Agricultural extension work.
138. Mushrooms.
139. Japanese plums.
140. Second report on potato culture.
141. Powdered soap as a cause of death among swill-fed pigs.
142. The codlin moth.
143. Sugar-beet investigations.
144. Notes on spraying.
145. Some important pear diseases.
146. Fourth report on progress of extension work.

## Ohio (Wooster).

- Bulletin No. 67. Oats.
68. Some destructive insects.
  69. The Chinch bug.
  70. Forage crops.
  71. The maintenance of fertility.
  72. Peach yellows, black-knot, and San Jose scale.
  73. Investigations of plant diseases.
  74. Fifth Annual Report.
  75. Beet sugar production.
  76. Potatoes.
  77. The Chinch bug and other destructive insects.
  78. Corn.
  79. Some diseases of orchard and garden fruits.
  80. The maintenance of fertility.
  81. The San Jose scale in Ohio.
  82. Field experiments with wheat.
  83. A first Ohio Manual.
  84. Seventh Annual Report.
  85. Strawberries.
  86. History of the lives of a butterfly and moth.
  87. The periodical Cicada.
  88. Co-operative experiments made by the Ohio Agricultural Students' Union.
  89. Prevalent diseases of cucumbers, melons, and tomatoes.
  90. Sugar beet investigations.
  91. The lung and stomach worms of sheep.
  92. Preliminary report upon the diseases of the Peach.
  93. The home mixing of fertilisers.
  94. The maintenance of fertility.

## Pennsylvania (Centre County).

- Bulletin No. 9. Digestibility of corn fodder and silage.
16. Culture of the chestnut for fruit.
  17. The value of cotton-seed meal as compared with bean for the production of butter.
  18. Notes on new and old varieties of orchard fruits and small fruits.
  20. Tests of dairy apparatus.
  21. The Koch test for tuberculosis.
  22. Tests of dairy apparatus.
  23. Forest fires.
  24. Influence of quantity of food upon economy of milk and butter production.
  25. Small fruits in 1893.
  26. Mangels and sugar beets versus silage yield—cost and feeding value.
  27. Tests of cream separators.
  28. Cotton-seed feed for dairy cows.
  29. Tuberculosis of cattle.
  30. Tobacco experiments.
  31. Report of the Director for 1894.
  32. Small fruits in 1894.

33. Directions for using the Babcock milk test.
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35. A soil test with fertilisers.
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  71. Experiments with spring grains.
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## Aviary.

Presented to the Trustees National Park—1 bustard or plains turkey (*Eupodotis australis*, Gray, Australia.)

## PRESENTATIONS.

- 1 morepork (*Podargus strigoides*, Lath., Australia. From Miss A. Brownlow, 8 Shepherd-street, Darlington.
- 3 stone curlews or stone plovers (*Edicnemus gallinarius*, Lath., Australia). From Mr. W. A. B. Greaves, "St. Helens," Burwood.

- 1 galah parrot (*Cacatua roseicapella*, Vieillot, Australia). From Miss Hill, 43 Bent-street, Sydney.
- 2 Pennant's parrakeets (*Platyercus elegans*, Gmelin, Queensland.
- 5 bronze-wing pigeons (*Phaps chaloptera*, Latham, Australia).
- 1 Port Lincoln parrot or banded parrakeet (*Platyercus zonarius*, Shaw, Central and South Australia).
- 2 Californian quail (*Callipepla californica*, Shaw and Nodder, California).
- 5 dotterel quail (*Turnix varia*, Lath., Australia).
- 1 rosella (*Platyercus eximus*, Shaw, New South Wales). From Miss Lily Hill, Vancluse.
- 2 sulphur-crested cockatoos (*Cacatua gymnopsis*, Sclater, North and North West Australia).
- 1 golden pheasant cock (*Chrysolophus pictus*, Linn., China).
- 1 Reeves' pheasant cock (*Phasianus Reevesi*, Gray, China). From Mr. W. Parr, 13 Broadway, Glebe.
- 5 white-backed magpies (*Gymnorhina tibicen*, New South Wales.) From Mr. A. M. N. Rose, Boloa, Buckley's Crossing.
- 1 sulphur-crested cockatoo and cage (*Cacatua gymnopsis*, Sclater, North and North-west Australia.) From Miss Spencer, Criterion Theatre, Sydney.
- 1 blackbird (*Merula merula*, Linn., Europe). From Mr. S. W. Wagstaff, 145, Alfred-street, North Sydney.

## PURCHASED.

- 2 Brown's parrakeets (*Platyercus Browni*, Temm., Port Darwin).

## BRED IN THE AVIARY.

- 6 hybrid pheasants—English x silver.

## CAUGHT BY AVIARY-KEEPER.

- 1 Pennant's parrakeet (*Platyercus elegans*, Gmelin, Queensland).

## STOLEN OUT OF CAGE.

- 1 golden pheasant cock (*Chrysolophus pictus*, Linn., China).

## DEATHS.

- 3 Java sparrows (*Munia orizivora*, Linn., Java).
- 3 common pheasant hens (*Phasianus colchicus*, Linn., China).
- 1 silver pheasant hen (*Gemvus nycthemerus*, Linn., China).
- 1 crane.
- 1 white swan, killed by dogs (*Cygnus olor*, Linn., Europe).
- 1 Egyptian quail.
- 1 dotterel quail (*Turnix varia*, Lath., Australia).
- 1 brush turkey (*Calothurus Lathamii*, Gray, Queensland).
- 1 horned parrakeet (*Nymphicus cornutus*, Gmelin, New Caledonia).
- 3 galah parrots *Cacatua roseicapella*, Vieillot, Australia).
- 1 warbling grass parrakeet (*Melopsittacus undulatus*, Shaw, Australia).
- 3 red-billed liothrix (*Liothrix lutea*, Scop., Asia).
- 2 chestnut-eared finches (*Tanopygia castanotes*, Gould, Australia).
- 4 wood ducks, killed by cats (*Chenonata jubata*, Lath., Australia).
- 1 wood pigeon.
- 7 magpies (*Gymnorhina tibicen*, N. S. Wales).
- 1 pale-headed parrakeet, killed by rats (*Platyercus pallidiceps*, Vigors, Queensland).
- 1 cut-throat finch (*Amadina fuscata*, Gmelin, South Africa).
- 1 long-billed cockatoo (*Liometes nasicus*, Lath., N. and N.E. Australia).
- 2 bronze-wing pigeons (*Phaps chaloptera*, Lath., Australia and Tasmania).
- 1 weaver (*Quelea quelea*, Linn., S. Africa).
- 1 morepork (*Podargus strigoides*, Lath., Australia).

## Government Domains.

*Introductory.*—No votes of money having been granted for new works, any special undertaking had to be provided for from savings. I trust, however, that the year will be found to have been one of real progress in the work of the Domains.

On the 12th and 13th February, after five weeks' severe drought, we were visited by a heavy down-pour of rain (4½ inches in forty-eight hours), accompanied by almost a hurricane wind of 70 miles an hour, which uprooted several trees and tore great branches from others, necessitating the employment of the staff for several days pruning, &c., and cleaning up fallen debris. On 5th and 6th of May we had a similar storm, the wind blowing 67 miles an hour, and 6 inches of rain fell in the two days. This storm will be remembered as that which caused the wreck of the "Maitland," off Broken Bay. Again, on 30th June, and 2nd October, we had severe storms; 2¾ inches of rain fell on the latter date. All these storms inflicted damage on the Domain.

*Carriage Roads.*—During the year 2,500 square yards of carriage-way, in various places, have been torn up and re-metalled with 190 tons of good hard blue stone, hand-broken to 2-inch gauge. This has been lightly covered with good binding clay, thoroughly saturated with water, and well rolled. The road was

was

was at once made available again for vehicular traffic. A portion—800 square yards—of the semi-circular terminal carriage-way, near Mrs. Macquarie's Chair, has been laid with rough asphalt. This is a resting-place for vehicular traffic, and from it may be obtained a magnificent view of the Harbour and passing vessels, besides which several men-'o-war generally repose in the vicinity.

During the long spells of dry weather which were experienced during the year, it was found necessary to keep the watering-cart frequently in use on the carriage-roads, in order to bind the loose metal; and preserve a regular and smooth surface.

I am still very anxious about the steepness of the road where that from St. Mary's Gate to Mrs. Macquarie's Chair intersects that from the Macquarie-street gate to Palmer-street gate. Minor accidents at this place are of constant occurrence, and although reduction of the grade at this particular spot will be both difficult and expensive, I trust that, out of consideration for both man and beast, the work will be taken in hand at an early date.

*Footpaths.*—A new footpath (68 feet long by 4½ feet wide) has been made joining the carriage-way at Mrs. Macquarie's Point, with another at a lower level overlooking Farm Cove at its south-eastern side. This proves a convenience to persons in wet weather, or on a dewy morning, as hitherto those pedestrians who wished to pass to the foot-path from the carriage road, or *vice versa*, had to cross the turf.

Dilapidated foot-paths and surface-water channels have been broken up, tarred, and re-asphalted, to the extent of 1,206 square yards, while 4,680 square yards of asphalt walks have been painted over with boiling tar, and immediately sanded.

Besides the maintenance and routine work connected with the paths, the three following important improvements have been commenced:—

(1.) The main central avenue for pedestrian traffic leading from St. Mary's entrance gates to the Botanic Gardens gates, over 420 yards in length, is in the most frequented portion of the Outer Domain, and was found to be much too narrow for the large numbers of people using it on Sundays and holidays. The sides were broken and undefined, and the width of the avenue varied from 17 to 20 feet. The sides have been properly aligned to a uniform width of 24 feet, and neatly kerbed with 8-inch round-topped freestone from the Pymont quarries. The extra width of the walk enclosed was ballasted with stone debris from buildings in progress at a trifling cost. The whole of this beautiful avenue now requires re-asphalting, which it is to be hoped will be carried out at an early date.

(2) Beach-walk.—From its first formation, some eighteen or twenty years ago, this favourite marine parade has been a source of trouble on account of sudden and irregular subsidences causing dangerous holes on the surface. This arose from fine silt and gravel having been used amongst large stones in the original formation; this has gradually been washed away by the tidal waters percolating through the imperfect base of the dwarf sea-wall, and undermining the whole of the walk.

An opportunity occurred towards the end of the year of giving temporary work to a number of men. The whole of the west side was turned over 2 to 3 feet deep, all the large stones broken up and rammed close together, thus filling up all cavities; the shrinkage thus created on the surface was made good by the addition of over 300 cart-loads of stone debris and clay, &c. The walk now requires a top-dressing of good gravel to make it perfect.

(3.) New Steps.—A beginning has been made of another important improvement between Mrs. Macquarie's Chair and the Corporation Baths, on the steep escarpment facing Garden Island. On account of its inaccessibility it has hitherto been mostly given up to loafers. There was no easy access from the high-level walk on east side to the promontory to the Beach-walk, some 40 feet below, without a very circuitous journey. A flight of zig-zag stone and concrete steps has been commenced to unite these walks, and it is proposed to further improve upon the already-interesting natural features of the place by utilising projecting portions as seats, landings, or platforms, or as canopies over recesses forming open caves, and cosy look-outs for picnickers and other visitors.

When in the near future the electric light will be shining here during fine evenings, and fresh water laid on to the vicinity, this place will be an excellent rendezvous for respectable citizens. These slopes afford some of the most beautiful scenery in the world, and having an easterly aspect, the afternoon sun will not inconvenience those who desire to use the place for a quiet read or simple rest. So strongly do I feel in regard to the desirability of utilising these slopes, that I look forward to the time when I shall be in a position to construct three or four rustic flights of steps to connect these high-level walks with the Beach-walk. I am very anxious, also, to connect the high-level walk overlooking Farm Cove with the Beach-walk. I do not doubt that it is mere oversight that has prevented the utilisation of these beautiful slopes so long, and it speaks volumes for the good nature of our citizens that, for so long a period, they have been content with making a tedious detour whenever they desired to pass from the high-level roads and paths in the Domain to the Beach-walk, and *vice versa*.

*Removal of old trees.*—It has been found necessary to remove the following old trees which, through disease, old age, or breakage by storms, had become unsightly and useless:—3 White or Cabbage Gum (*Eucalyptus hamastoma*, var. *micrantha*); 3 Brush Box (*Tristania conferta*); 1 Moreton Bay Fig (*Ficus macrophylla*); 1 Blue-berry Ash (*Elaeocarpus cyaneus*); 3 Forest Red-gum (*Eucalyptus tereticornis*); 2 New Zealand Karaka (*Corynocarpus laevigatus*); 1 Port Jackson Fig (*Ficus rubiginosa* or *australis*); 1 White Poplar (*Populus alba*).

The *E. hamastoma* and *E. tereticornis* were not planted by the hands of man. Some of these trees have been unsightly for years, and if I could have spared the labour I would have made a clean sweep of them before. While a healthy tree is one of the most beautiful objects in Nature, a diseased and dying one is a lamentable sight, offensive to the eye, liable to communicate disease to healthy trees, and a possible source of danger to pedestrians in its enfeebled condition.

In addition to the above, 2 Norfolk Island Pines (*Araucaria excelsa*), 6 Aleppo Pines (*Pinus halepensis*), 3 Smooth-barked Apple (*Angophora lanceolata*), 3 *Banksia integrifolia*, 2 *Pinus insignis*, and 2 *Pittosporum undulatum*, have all died from one cause or another.

*Tristania*, *Corynocarpus*, and *Pittosporum* are subject to grubs in the stems and branches, which cannot well be got at. Most of the *Pinus halepensis* in the Domain have been suffering for several years past from the effects of an insect pest very difficult of treatment. The Figs and Poplars have been blown over or broken by fierce winds, and the others have died back gradually from old age, dry-rot, or white ants.

The above list of removals shows the necessity for yearly plantations to keep up the supply, and already several sites for trees have been decided upon, and will be occupied as soon as funds and opportunity will allow.

Much

Much pruning and some thinning-out has been necessary to keep trees in shape and out of harm's way, while a quantity of dead wood has been removed from old gum-trees to preserve their green and healthy appearance as much as possible. Nevertheless, the day is approaching more rapidly than I like, when the self-planted indigenous trees in the Domain will be a thing of the past. Like our aborigines, they pass away with the development of the improvements of civilised men. I may remark that several trees, both figs and pines, which were planted some years ago near the water's edge, for ornament and shade, have succeeded so well that they now interfere considerably with the magnificent view from the carriage-road, and will probably have to be thinned-out in the near future.

*Tree-planting during the year.*—During the year ending December, 1898, no young trees were planted in the Domain, as all our available funds, after the usual necessary repairs to roads and paths, &c., were expended upon improving the central avenue, as referred to in this Report. It is to be hoped, however, that during the year 1899 we will be able to provide guards for and plant at least two dozen permanent trees in suitable places.

*Acacia or Wattle Plantation.*—This corner of the Domain, near Governor Bourke's statue, is very interesting. A plantation was begun here in 1897, and already some wattles have shown their flowers. Further ground, in the same locality, is being prepared to increase the collection, which it is hoped will be largely added to during 1899.

*Rosarium.*—This garden, near St. Mary's entrance to the Domain, has proved very attractive and interesting to visitors. There are now 196 varieties of roses to be seen here, all true to name; and although the place is very much exposed to east and south-east winds, causing the plants to suffer severely, yet numbers of blooms are maintained every month of the year. A lawn-mower is frequently used on the green turf-paths; the encircling walk has been ballasted and covered with fine sandstone chippings, which produces a very good effect. Edging tiles have been laid on one side of this walk all round, and the ground has been partially drained.

*Grass.*—Hundreds of loads of soil and loamy clay from various foundations and excavations about Sydney have been used in filling hollow places, and in levelling-up the ground. Grass has been planted on bare patches, although on certain spots where there is much traffic or dense shade from the trees there will always be absence of green sward.

*Water Supply.*—We have still only one fountain in the Domains. Further accommodation in this respect is much needed, particularly at two points, namely, near Mrs. Macquarie's Chair, and towards St. Mary's entrance gates, where visitors mostly congregate on Sundays, &c.

A cattle drinking-trough is also much required near Mrs. Macquarie's Chair, but at present the water-main does not extend to within several hundred feet of the spot.

Following is the registered water-supply during the year:—

Meter No. 284. Enclosure near Macquarie-street entrance, Domain.—May, 1898 (date of fixing), to December, 1898...	1,000 gallons.
Meter No. 285.—Cattle trough, St. Mary's entrance, Domain.—June 10, 1898 (date of fixing) to December, 1898	6,000 "
Meter No. 275.—Enclosure near St. Mary's entrance, Domain.—From January, 1898, to December, 1898	24,000 "
Meter No. 277.—Cattle trough near Cricket Ground.—January, 1898, to December, 1898	16,000 "
Total ...	47,000 gallons.

*Lighting.*—An extension of the present system, or a better system, of lighting the Outer Domain is very much required. There are forty-seven feeble gas lamps scattered over an area of 50 acres of ground, and the other 40 acres have no artificial light at all. I can only reiterate the wishes contained in my last Report. If the Domain were well lighted by the electric light, thousands of citizens would promenade it every evening, which at present they are unable to do.

*Seats.*—There are now 230 seats scattered all over the Outer Domain, making a net addition of thirty during the year, after replacing a number of broken or worn-out ones. Even this number is very inadequate at certain times and in certain places. I hope to still further augment them during the coming year. These seats are all 6 feet long, and can easily accommodate five persons; but two or three persons usually monopolise the whole seat. It is a matter for consideration whether shorter seats and more of them would not better suit the public convenience.

*Railings and Fences.*—The fences have been kept in repair and the old single batten fences to protect verges and slopes are gradually being replaced with 3 x 3 rails set diagonally and supported by posts of the same dimensions. The iron railing near the electric lighting station at Woolloomooloo Bay having been frequently broken, a gate has been fixed in the railing at this place with the view to meet the public convenience. The boundary between the Domains and Botanic Gardens along Mrs. Macquarie's Road is marked by an unsightly galvanised iron fence. This structure is not only hideous in itself, but it prevents visitors to the Gardens looking out into the Domain, and, above all, it prevents visitors to the Domain from enjoying the delightful view across the Gardens towards Farm Cove. A neat dwarf wall, surmounted by an iron railing, would cost perhaps £1,500, but the improvement to both the Gardens and Domains would be immediate and enormous. The present condition of affairs may be likened to that of a precious jewel in a setting of base metal.

*Tree Guards.*—The most effectual tree guards for the purposes of the Domain are circular iron guards, 7 feet in diameter and 4 feet 6 inches high, made of round iron pointed at the upper end. Picket-fence guards, 8 feet square and 4 feet 6 inches high, are also useful in certain places, e.g., about Mrs. Macquarie's chair, and on the flat ground near the floating baths, Farm Cove. The iron ones are used in the south-west part of the Domain, and in the central avenue and in other places. The cost of picket-fence guards as above is about £3 each. The cost of circular tree guards as above is about £3 10s. each. The latter are very durable, will probably last three generations of trees, and always look well. The picket-fence guards will probably last only one generation.

*Painting.*—All seats and fences in the Domains, except the boundary iron railing, receive, if possible, an annual coat of paint; this has been done within the past year. The question of colour is a debatable one. Some people prefer green, as being theoretically the most natural colour, harmonising with everything around. Unfortunately, during our hot summers, trees and grass, &c., are often not green.

green; but even with all vegetation "in verdure clad," it may not follow that inanimate objects in the vicinity, such as fences, railings and seats, should be similarly coloured; also, owing to its lack of durability, green paint soon becomes of a sombre unattractive hue. At present a quiet stone-colour has been selected as seemingly the most appropriate for the Domain, and I have not heard any adverse criticism from the general public, from painters, or from landscape gardeners. It has certainly the merits of durability, and has a bright, clean appearance.

*Refuse.*—The iron bins provided as depositories for fruit, paper, and other rubbish, have not been much availed of by visitors. By want of thought in this respect, visitors impose an enormous amount of unnecessary labour on the staff, which is the more regrettable seeing the desirable improvements that cannot be carried out simply because workmen are not available for the purpose.

*Public Latrines.*—These conveniences were erected in 1895, and are now extensively used by the public. The present accommodation is already rather limited, and arrangements are being made for its extension. On one Sunday in January, about 1,700 persons were counted entering these latrines, and the numbers are not decreasing. The latrines require frequent attention to keep them wholesome and clean, and improved arrangements will be adopted with the extension referred to. These latrines are confined to one portion of the Domain, in a convenient, though not in a central situation. In my opinion more latrines for men, in the vicinity of Mrs. Macquarie's Chair, are absolutely necessary. The absence of similar accommodation for females is a matter for very great regret.

*Music.*—The bandstand was erected in 1897, and was first used by the Permanent Artillery Band on 16th February, 1898, and these performances have proved an immense attraction. Many citizens now look eagerly forward to Wednesday afternoons for the recognised weekly musical performance. At the beginning of the year visitors could be counted by a few hundreds; recently, over 2,000 listeners have been frequently counted at a performance. The stand is not reserved for any particular body of performers; it is only required that applications should arrive in sufficient time to permit of proper arrangements being made. During the year, on Sunday afternoons, several bands belonging to Sydney and suburbs have played sweet music on this bandstand, and I would like to see it occupied far more frequently than is the case at present. The comfortable seating of the public at these performances seems to be out of the question when the audiences are large. The number of seats in the vicinity of the bandstand has been largely increased, but at present the people mostly accommodate themselves on the grass, while in very wet weather the band rarely performs; but if some enterprising individual were to offer to supply seating accommodation—say camp-stools, or light chairs—on these occasions, his venture would probably be remunerative. I would like to see the bandstand lighted with gas or electricity in the near future; in this case, musical evenings in the Domain will become a fashionable enjoyment.

*Cricketing and other games.*—The juvenile cricket-ground formed last year on the east side of the Lower Domain, adjoining Cowper wharf, has been very much availed of by the persons for whom it was intended, and small boys who practise cricket and other games in other parts of the Domain are not interfered with unless they take up places where their games will cause inconvenience to pedestrians and others using the Domain.

*Bathing.*—I am far from satisfied with the bathing arrangements in Woolloomooloo Bay and Farm Cove. It seems to me that the requirements of the public should be far better served than they are at present, while improved arrangements would, I feel sure, result in an enormously increased number of bathers. Thus judicious expenditure would result in increased revenue to lessees of baths. By the erection of a hideous fence some 18 feet high the lessee of one of the baths has removed the scandal that formerly existed through visitors to the Domain being able to see, from the road, nude bathers.

*Insect pests.*—Some two or three years ago a scale insect was discovered to be attacking and considerably injuring several oak-trees. It was determined by the Government Entomologist to be *Pterodaspes (Planchonina) quercicul.* A few sprayings with kerosene emulsion and resin-wash, however, has hindered its progress, and a few more will probably exterminate it. For green-fly on roses we find Gishurst compound the best remedy—2 oz. to a gallon of hot water. For mildew, sulphur is successfully used. For slugs and snails quicklime is best; and for ants on walks, bisulphide of carbon has been effectively used.

*Weeds.*—The well-known Nut-grass (*Cyperus rotundus*) is a serious pest in the Domain. It comes with soil, by the agency of birds, and in various ways. Our men have to wage a relentless war upon it. Frequently it appears to get the upper hand, and nothing but intelligently-directed perseverance can cope with it. The eradication of this pest involves us in a serious annual charge.

The other troublesome weeds here are Paddy's Lucerne (*Sida retusa*), Cobblers' Pegs (*Erigeron canadense*), and the grass *Sporobolus indicus*, all of which frequently overgrow the pasture grasses, are not much eaten by cattle, and give the sward an untidy appearance if allowed to spread. *Lantana camara* has been almost entirely exterminated, while *Phytolacca* (Poke-weed), *Datura Stramonium* (Stramonium), *Cryptostemma calendulaceum* (Cape-weed), *Xanthium spinosum* (Bathurst-burr), and *Emex australis* have been nearly exterminated.

Many weeds, and even Nut-grass on gravel paths and sides of carriage roads, have been destroyed by two or three consecutive applications of sodium arsenite. The proportions used are 5 lb. arsenic, and 10 lb. caustic soda, dissolved in a few gallons of water; this is added to 150 gallons of water. The solution is sprayed on paths, &c., through the rose of a watering can, at the rate of one gallon to ten square yards.

*Visitors.*—On Sunday, 11th December, we counted the number of persons coming into the Domain, between 2 and 5 o'clock p.m., at the two principal gates only, viz., Macquarie-street entrance and St. Mary's Road entrance, and found as follows:—11,140 pedestrians, 196 vehicles, 56 bicycles, and 7 equestrians (5 gentlemen and 2 ladies.) The day turned out dull and cloudy, and there was no band or any special attraction in the Domain.

*Government House Gardens.*—The gardens about Government House have been well attended to by three men under a gardener-in-charge (Mr. Helps). The lawn and tennis-courts, &c., have been kept well mowed and rolled; the flower beds and green houses have been kept well furnished, and a fair supply of cut flowers and pot plants has been always available.

Several garden walks have been turned over, ballasted, and gravelled, and new turf edgings have been laid where necessary.

The condition of the grounds certainly shows an improvement on that of the preceding year, in spite of the fact that the climatic conditions have not improved.

*Miscellaneous.*

*Miscellaneous.*—Besides the Inner and Outer Domains and gardens at Government House, Mr. Jones has under his supervision several small plantations, grass lawns, shrubberies, and flower borders at various public buildings about the city of Sydney. My sub-department is also called upon to supply information, plans, and supervision in regard to the laying out or improvement of grounds at various Government institutions in the country—gaols and railway stations, &c.—and suitable trees and plants for the same are frequently supplied from the Botanic Gardens.

The most important outside works undertaken during the past year are the Court-house grounds at Newcastle and the grounds adjacent to the Caves house at Jenolan.

### Garden Palace Grounds.

The year 1898 has been a particularly trying one, and will be long remembered by the staff on account of its almost continuous dryness, consequent upon the scanty rainfall during that part of the season when it was most needed. Although, by dint of careful watering, a fair succession of flowers was maintained in the more important parts of the grounds, the lawns unfortunately were very frequently brown, thus materially detracting from their appearance. However, little of any consequence was lost, and, owing to a fairly good pressure of water, few trees or shrubs of value suffered very severely.

*Water Supply.*—The matter of draining the fountains round the statue of Governor Phillip is a work of some importance. When the statue was completed, as referred to in my last Report, it was considered advisable to conduct the spent water from the fountains into an adjacent main drain, in accordance with an arrangement undertaken some time ago. It, however, appeared to me that the water might be utilised for the purposes of the Botanic Gardens.

It may not be generally known that the ponds in the Botanic Gardens possess no regular supply of fresh water, either to ensure the prevention of stagnation or even to compensate for that lost by soakage and evaporation. With the exception of the spent water discharged by the Mint in Macquarie-street, which is drained from that Institution into the Garden Creek, and thence to the ponds, and also a small, almost inappreciable quantity of waste from the drinking fountains, the rain is depended upon for keeping the ponds supplied. Consequently, when the rainfall is slight, as for instance during the last summer, the very undesirable result is the stagnation of the pond water. Not only is the water itself badly coloured by reason of the minute animal and vegetable life with which it teems at such times, but the smell arising therefrom is very disagreeable, and it may also be detrimental to the public health.

It occurred to me that the waste water from the Phillip fountains might with advantage be used for flushing the creek, and thus for replenishing the ponds. Accordingly, a service consisting of 6-inch glazed drain-pipes, was laid down, the joints being well cemented to prevent the ingress of roots, &c. The course of the drain is from the statue in the direction of the picket fence on the southern boundary of the grounds to a point about 70 yards from the main gates, and from thence parallel with the fence through the Garden Palace Grounds and the propagating reserve to the head of the creek in the Botanic Gardens, where it discharges. Although the water is not absolutely sufficient to thoroughly remedy the state of things to which I have referred, as the supply is intermittent (being only available for two or three hours twice a week), yet the result answers my expectation, and is, I am fully convinced, a step in the right direction. While referring to the matter, I feel moved to record my conviction that the existence of this stagnant water at certain times in the Botanic Gardens ponds should not be permitted to continue. The remedy, of course, is a constant supply, whenever needed, of fresh water. This will certainly entail expense, but perhaps some arrangement may be come to with the Water and Sewerage Board by which a sufficiency of pure water may be available, at all times during the year, to keep the creek and chain of ponds in a perfectly wholesome condition.

The following is the registered water supply during the year :—

Meter No. 206	...	...	...	...	...	...	...	gallons.
								980,000
(The Governor Phillip Fountain is not separately controlled by meter.)								
Meter No. 253.	Lawn near Governor Phillip's Statue	...	...	...	...	...	...	36,000
	Total	...	...	...	...	...	...	1,016,000

*Removal of Fence between Garden Palace Grounds and Botanic Gardens.*—It being evident that the iron-railing fence separating these grounds on their north-eastern boundary from the Botanic Gardens was an unnecessary obstruction to the public, and that it materially interfered with the landscape views in this direction, I caused the fence to be removed. The fence, being in thoroughly good order, was re-erected in place of the old and unsightly corrugated galvanised-iron fence which had hitherto divided these grounds on their east side from the Botanic Gardens. I have reason to conclude that these changes, although small in themselves, have largely contributed to the comfort of visitors, and have added much to the attractiveness of the scene between the Garden Palace Grounds and Farm Cove.

Eventually the removal of these fences will necessitate some alterations in the direction of new walks and borders, &c., in order to adjust some anomalies which at present exist, partly in consequence of the alterations, the two gardens having been laid out at different periods, and to some extent independently of each other.

*Painting.*—During the month of December all the boundary fences, railings, and gates of these grounds were cleaned and painted by a number of temporarily employed men, under the supervision of the Government Architect. This work has vastly improved the appearance of the place. The Phillip statue, together with all the statuary, vases, &c., of these grounds, were thoroughly cleaned and renovated by the same men.

*Top Dressing of Lawns.*—This work has been proceeded with as far as opportunities would allow. The small lawn on the eastern side of the main walk leading from the principal entrance has had a large quantity of soil carted on to it, removing to a great extent the inequalities and depressions which had resulted from the settling of the ground; also, the lawn on the western side of the same walk received a slight dressing, which I intend to supplement as soon as material is available. The small lawn between the palm-bed and the main walk near the entrance to the Botanic Gardens has also received attention, a large quantity of soil having been carted on to it, raising it to its normal level.

*Soil for New Border.*—The shrubbery in the south-east portion of the grounds referred to in my last Report has since been filled with the necessary soil, and is now only waiting the planting season for the work to be completed.

## Centennial Park.

*Tree-planting.*—This work has not been neglected during the past season, trees to the number of 190 having been planted. The names and numbers of the species are as follows:—

Port Jackson fig ( <i>Ficus rubiginosa</i> ) .....	143
Moreton Bay fig ( <i>Ficus macrophylla</i> ) .....	6
Live oak ( <i>Quercus virens</i> ) .....	17
Coral tree, several species ( <i>Erythrina</i> ).....	21
Stone pine ( <i>Pinus pinea</i> ).....	3
Total .....	190

These trees have been treated liberally in the matter of soil, upon which the sum of £122 3s. 6d. has been spent, at the rate of 4s. 6d. per cubic yard. The Park consists of nearly pure sand, and all trees have been planted in a sufficiency of good soil, without which vigorous arboreal vegetation cannot be established.

It will be observed that the trees above enumerated are all of what may be termed common species, and perhaps some persons may consider that we should aim at planting a larger number of kinds. This has already been tried, and has proved a failure. For the present, or until such time as the hardy trees afford some shelter, only very hardy trees will survive in the bad soil and bleak exposure of the Park.

All the trees planted in 1897 are growing nicely. The experiment made of planting *Acacia* (wattle) and *Casuarina* (she-oak) seedlings has been fairly successful. *Acacia Baileyana* has thriven splendidly; the plants are now about 9 feet high, and covered with flower buds. They should make a grand display of golden-yellow bloom about the month of August.

*Acacia binervata* and *decurrens* have both made good growth; but, although they are fine, healthy plants, no flower buds have yet made their appearance. *Acacia longifolia* has, however, proved a failure so far, owing principally to the attacks of insect pests, to which this species seems to be extremely susceptible. *Casuarina quadrivalis* has made excellent growth, and if clumps of this plant can be successfully grown, they will form quite a feature in the Park. As regards the Broad-leaved Tea-trees (*Melaleuca leucadendron*) planted in 1897, they are growing splendidly, being now over 6 feet high, and much is expected of them in damp situations in the Park, where they are planted mainly as break-winds.

*Tree-guards.*—During the past year iron tree-guards to the number of 120 have been purchased, and nearly the whole of them have been put in use. Additional tree-guards will be required during the coming year to protect freshly-planted trees and to replace as many as possible of the temporary wooden ones, which it is my desire to abolish altogether.

*Protection of Native Vegetation.*—Last year I drew attention to the desirability of protecting the knolls of indigenous vegetation in the centre of the Park. Up to the present it has not been possible to set apart a sum of money for the purpose of fencing these interesting spots. In a few years it will be too late, and during the past twelve months many plants have been trodden down and otherwise destroyed. It will be very pleasing to me if in my next Report I am able to state that a beginning has been made with this very necessary work.

*Native flower plantation.*—In anticipation of provision being made for iron fencing for a native-flower plantation, plants indigenous to the Colony are now being raised in pots in the propagating ground, and it is hoped that during the coming year we may see our anticipations in this matter realised. In this way the Park will have a directly educational value, as all the plants will be properly labelled, and I do not doubt that the public will appreciate the innovation.

*Collection of native grasses, Cyperaceæ, &c.*—From time to time plants of native grasses have been collected, potted, and sent to the Botanic Gardens to augment the collection of native grasses there. Many plants of the orders *Restiaceæ* and *Cyperaceæ* have been collected and sent to the Botanic Gardens to supplement the collections in the Monocotyledonous portion of the Arrangement Ground. I take this opportunity of commending the good work that Mr. William Forsyth (the overseer) has done in this direction, and he has also busied himself with the collection of native seeds and of botanical specimens.

*Effects of the continued drought.*—Once more I have to record a very dry year. The effect on the Park has been very marked; the plants all suffered more or less, the annuals being, of course, the greatest sufferers. The grass gradually acquired a brown appearance, and the ponds—a conspicuous feature in the Park—have not been so empty since the formation of the Park ten years ago. So far as the ponds were concerned, however, the evil was not an unimixed one, as the absence of the water afforded an excellent opportunity of largely eradicating a plant which has been a nuisance in the ponds for a long time, viz., *Helocharis sphacelata*, R. Br. This plant has given much trouble to destroy. Frequent mowing of the stems has been tried, but little headway has been made by this method, and pulling it out by the roots seems to be the only effective way of dealing with it.

As is usual in protracted dry weather, the macadamised portion of the Grand Drive suffered severely, and many were the complaints of cyclists and drivers of vehicles at the presence of numerous small, loose stones on the road, which every endeavour was made to minimise.

*Larring and metalling of roads and paths.*—The expenditure under this head has been very heavy during the past year. The conversion of the macadamised portion of the Grand Drive into an asphalted road has been strenuously pushed on, with the result that 37 additional chains have been completed. This distance includes what is known as Cleveland-street entrance, a length of 27 chains, which a year ago was in a very bad state, but this piece of road will, I have no hesitation in stating, now compare favourably with any road of a similar width and length anywhere. The costly nature of these improvements may be inferred when it is stated that the road is 33 feet wide, and that this road has to be covered with a layer of blue-metal, then with a layer of tarred rough blue-metal screenings, and lastly floated all over with tar. The customary repairs to other roads and paths as well as floating them with tar has not been neglected. The total quantity of tar used during the year amounted to a little over 12,000 gallons.

*Road between Queen and Ocean Streets.*—The large reservoir for the Sydney Water Supply being now completed, it is necessary to form and complete the road inside the Park between the Queen-street and Ocean-street entrances. I trust that funds will soon be forthcoming for this most desirable work, as the road is required to complete and connect those round the inside of the Park, added to which the views from the site of the proposed road are of a charming character.

*The Ride.*—The Ride, in common with the rest of the Park, suffered severely from the drought; but it is a matter for satisfaction that during the year it has not been found necessary to close it. The tracks or ruts have not been so pronounced as in former years, and if riders would endeavour to avoid each others tracks, I feel confident it would not be found necessary to close the ride at all—at all events on very rare occasions.

*Cyclists.*—In my last Report I had to complain of cyclists using the footpath, to the detriment of pedestrians, and also of scorchers endangering even the lives of people. I am pleased now to state that the evils complained of have almost disappeared.

*Erection of buildings.*—During the past year a shelter pavilion similar to that in the Garden Palace Grounds has been erected at a cost of about £400. It is situated on a prominent site at the junction of three embankments near the centre of the Park, and is already much appreciated by the public. They have now a comfortable building in which to rest, and its situation is such that it affords convenient shelter to those who are overtaken by rain. Its design is very pleasing and it is an ornament to the Park. A picturesque brick cottage with red tile roof, to be used as a residence for the Senior Ranger, has been commenced. This cottage occupies the site of an old building previously occupied by him, but which was condemned as unfit for further habitation. The site is a commanding one near the end of the straight road from the Cleveland-street entrance, its situation enabling its occupant to keep in view a large area of the Park.

*Band-stand.*—I am still anxious to see a band-stand erected. The lack of one prevents bands from coming to the Park, and on the few occasions on which a band has played, the number of people who came to listen was very large. If a proper band-stand were erected, I do not doubt that the Permanent Artillery Band, and several excellent bands in the city and suburbs, would occupy it, and afford visitors opportunities of hearing good music. It is not easy to exaggerate the advantage to the public health and happiness which is secured by attracting large crowds of people into a beautiful park, and recreating them with sweet music.

*Latrines.*—This is another matter which I again recommend for serious consideration. The absence of suitable latrines for both the employees and the public should not be allowed to continue in the premier park of the Southern Hemisphere. In saying this, I am aware of the difficulty which the levels of the Park present in regard to the substitution of a scheme of main drainage in lieu of the pan system now in operation.

*Reservoir (Sydney Water Supply).*—This important work, described in my last Report, has now been completed, and forms a conspicuous and not unattractive object in the Park. The roof has been covered with turf, and from this roof and the terrace outside the reservoir proper enchanting views of the Park and surrounding country towards Botany Bay are afforded. I pay frequent visits to this place in the course of my official duties, and never tire of the view, feeling that it is one of the most beautiful with which I am acquainted. Contemplation of such beautiful scenery must tend to elevate the minds of every citizen who chooses to enjoy it.

*Statuary.*—During the past year some evilly-disposed person or persons pushed over one of the four statues of the "Seasons," situated near the centre of the Park. The statue was badly broken, but it has been skilfully repaired, and has been replaced on its pedestal. This is the first occasion on which any of the statues have been knocked over, and it may be stated that, with such a large area open to all sections of the public, the Park has been singularly free from vandalism.

*Water Fowl.*—During the last year one of the black swans hatched, and successfully reared, a brood of cygnets. The interest taken in these cygnets by the public warrants the suggestion that it would be very desirable to have a small pond properly fenced and reserved for the swans. At present they are not confined to any particular pond and are liable to be annoyed by boys, and perhaps worried by stray dogs.

### State Nursery, Campbelltown.

*Distribution of Plants.*—The plants raised and sent to the Botanic Gardens for planting out and distribution during the year numbered 84,131 (trees, shrubs, bulbs, and tubers), and notwithstanding the severity of the season, the plants referred to were of excellent quality.

*Preparation of Plants for Season of 1899.*—The stock of plants now being prepared for distribution during the winter of 1899 is of extra fine quality, and embraces a greater variety of plants than in previous years.

*Seeds and Plants received.*—About 300 species and varieties of seeds and plants were received during the year from twenty-seven contributors. Many these will be of value for the purposes of the nursery.

*The Weather.*—The year opened in the midst of a very severe drought, very little rain having fallen during the last three or four months of the previous year. During the month of March very fair rains fell, which greatly benefited the nursery stock and left the ground in good condition for the work of transplanting stock, seedlings, cuttings, &c. After good rains during the winter and spring months, another very severe drought set in as the season advanced and continued until the end of the year. This has proved the most severe drought known to Mr. McEwen, the Superintendent, during his residence at the Nursery of fifteen years.

*Water Supply.*—Following is the registered water supply during the year:—

Meter No. 268	...	...	...	...	...	...	...	gallons.
								265,000

*Improvements.*—Additions have been made to the bush-house accommodation, but more is required. The oldest structure, built fifteen years ago, required to be renewed, as it has become rotten and unfit to repair. Additional ground has been broken up for the purpose of planting specimen trees to form a small arboretum. These the Superintendent hopes to plant during the winter of 1899. Application has been made for a small brick office (the room at present used for this purpose being unfit for the preservation of books and papers), but this has not yet been carried out.





1899.

(THIRD SESSION.)

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LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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# ANNUAL REPORT

OF THE

# GOVERNMENT LABOUR BUREAU

FOR

YEAR ENDING 30<sup>TH</sup> JUNE, 1899.

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*Printed under No. 8 Report from Printing Committee, 2 November, 1899.*

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1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

## GOVERNMENT LABOUR BUREAU.

(ANNUAL REPORT FOR YEAR ENDING 30TH JUNE, 1899.)

*Printed under No. 8 Report from Printing Committee, 2 November, 1899.*

The Superintendent, Government Labour Bureau, Sydney, to The Minister for  
Labour and Industry.

Sir,

Government Labour Bureau, Sydney, 21 August, 1899.

I have the honor to submit the seventh Annual Report of the Government Labour Bureau for the year ended 30th June, 1899.

### Labour and Industry.

When compiling my last annual report fairly good rains had fallen over the greater portion of the Colony, and the hope was generally expressed that the drought from which we had suffered for the three previous years had broken up. Unfortunately such has not proved to be the case, and we have just passed through another year of drought, affecting a much larger part of the Colony, and more disastrous than any or the whole of previous years; operating considerably on the labour market, making employment scarce and irregular.

The great pastoral, farming, dairying, and mining industries have been in a state of stagnation for the want of rain, with the result that large numbers of men have been thrown out of employment, and had it not been for the large expenditure on public works, and the elasticity of our rich natural resources, matters would have been much more serious for all those engaged in manual labour. When we consider the terrible losses of stock and crops, and the serious interruption in the production of our mineral resources (which, under more favourable circumstances, would not only have largely increased in value, but would also have given increased employment), the wonder is that the colony, under the circumstances, is so well off as it is.

During the last few weeks, however, splendid rains have fallen all over the Colony, excepting the far west, where a greater fall is still much needed.

To all appearances the drought has now broken up. If this proves to be the case, we can look forward to better times, with increased employment in all the avenues of labour and industry.

A few good seasons will dispel the gloom and disappointment which have overtaken many engaged in our great national industries, and give hope and encouragement for the future.

The number registered for the year at the head office was 3,843, or a decrease of 324 from that of the previous year. Of this number 2,196 were single and 1,647 married men, representing 4,941 children, of whom 1,630 were self-supporting, and 3,311 were dependent on their parents.

The number assisted and sent to work was 7,228, or 589 less than the previous year. The difference is not so great when the effect of the drought is taken into consideration.

The following will show the number registered and sent out each year from the head office and country branches since the inauguration of the Department, 17th February, 1892:—

Year ending.	Head Office.		Branches.	
	Registered.	Sent Out.	Registered.	Sent Out.
1893 .....	18,600	8,154	.....	.....
1894 .....	12,145	10,349	.....	.....
1895 .....	13,575	16,380	.....	.....
1896 .....	14,062	20,576	.....	.....
Intermediate period .....	3,283	5,327	1,104	143
1896-1897 .....	6,427	13,718	1,253	534
1897-1898 .....	4,167	7,817	715	288
1898-1899 .....	3,843	7,228	683	224
Totals .....	76,102	89,549	3,758	1,189

The intermediate period referred to was between 18th February and 30th June, 1896. In making our year assimilate with the financial year, the above period of four months was occasioned. The country branches were opened in March, 1896.

The reason that the number sent out exceeds the number registered is due to the fact that a man registers only once, but there is no limit to the number of times he may be sent or assisted to work.

### The Drought and its Effects.

Those who have not seen the drought-stricken parts of the Colony can have but a faint conception of the terrible havoc and devastation it has wrought, inflicting losses of the severest kind, not only to those directly interested; but to the general community.

For hundreds of miles in the western, north-western, and southern parts of the Colony, not a blade of grass or herbage of any description could be seen. Sheep by the millions perished, and also enormous numbers of stock. Those that were saved were only at great expense to the owners by their removal to the more favoured parts of the Colony, and by the cutting of scrub to feed them on. One of the results with sheep this season will be a very light wool clip, and a low percentage of lambing. The cost of replenishing the flocks and herds will prove most severe to many pastoralists.

In several parts of the Colony farmers and dairymen have also suffered severe losses.

In addition, the mining industry in most of the best mining districts has almost been paralysed for the want of water. Many of the mines were compelled to shut down at Cobar and the surrounding districts. The Great Cobar Copper-mining Syndicate was the only exception; but the management could afford to pay £11 per day for water to keep them going.

The foregoing will give a slight idea of the great loss of wealth to the Colony generally, and which has, as a consequence, materially affected labour and industry in all its branches. Hundreds of men were thrown out of employment, and made their way to Sydney to swell the ranks of the city unemployed.

To Bourke and Cobar, where the effects were more keenly felt, the Honorable the Minister gave special grants (referred to hereafter) to provide work, in repairing roads, for the unemployed, and thus saving their families from destitution. Considerable numbers of men were employed by station owners cutting scrub for starving sheep in the western and north-western districts, thus enabling them to live until employment improved.

The immense losses, the bitter disappointment, and the discouragement to those directly engaged in pastoral, farming, and mineral pursuits, as well as to the Colony generally, in consequence of the prolonged drought, should not be lightly passed over or forgotten on the return of a good season, as I fear has been the case too often in the past.

If I may be permitted to offer an opinion as to what can be done, if not to prevent at any rate to ameliorate this sad condition of affairs in the future, I would respectfully suggest—and I am confident the Government would assist—that those interested combine with a view to considering the best means to insure an additional supply of water by the construction of more tanks urgently required for the increased mining and pastoral industries which have come into existence during the last few years in many parts of the Colony; also by increasing the capacity of existing tanks, and where practicable enlarging the area. Many tanks require cleaning out, which in many instances would almost double the carrying capacity. It is said that the only means of conserving water in the Cobar district would be by the construction of tanks, as artesian boring has not proved successful. This district is rich in mineral and pastoral holdings.

In many parts of Bourke and north-western districts, artesian boring has proved a success, and in several places good supplies of water have been obtained; yet the area benefited from a bore is limited. Additional tanks, with irrigation where practicable from the Darling, Barwon, Lachlan, and other rivers, could be constructed, conserving the water in times of flood by dams, weirs, or locks, and distributing it in times of drought. No doubt these works would prove costly; but I am satisfied that they would prove amply reproductive, while the benefit conferred on the Colony and the people generally would be simply inestimable. And, furthermore, the very construction would provide a large amount of labour for a considerable period, and thereby absorb a great portion of the unemployed.

With these works successfully carried out, the rich lands of the far west would become the permanent home of thousands, capable of supplying the wants of almost the whole of federated Australia.

### Expenditure on Public Works.

The large expenditure on public works during the year has, to a considerable extent, diminished the serious effects produced on the labour market by the drought, as will be seen by the following figures:—

	£
Total expenditure on public works for the year ending 30th June, 1899 ...	2,189,287
Being an increase of £400,000 compared with the previous year.	
The Metropolitan Water and Sewerage Board ... ..	250,000
Hunter River Water and Sewerage Board ... ..	13,000
West Bogan scrub-clearing ... ..	24,185
Amount expended by various municipalities in the Colony for 1898, as per Coghlan .. ..	380,288
Total ... ..	£2,856,760

To this amount can be added the sum expended by the Railway Commissioners on railway deviations, duplications of lines, &c., during the year.

Although I do not know what this amount is, I think there can be little doubt it would bring the grand total expenditure on public works for the year to quite three and a quarter million pounds. These items include cost of material and supervision. But the greater part of this sum has been expended in giving labour, and no one will deny the immense benefits thereby conferred on the industrial classes generally, during a period which so seriously affected their welfare.

It has also prevented the necessity for relief works, which at the best are but temporary, and never satisfactory.

In two cases only was it found necessary to provide special grants for the relief of country unemployed, and these were at Bourke and Cobar, where on inquiry it was found they had special claims for favourable consideration by reason of the severe drought affecting them so seriously. The former received £350 and the latter £250 for special relief work. In the case of Cobar, the town was favoured with

with a little rain, when relief works were at once stopped. In the case of Bourke, however, only about a quarter inch of rain has fallen. This, of course, proves quite inadequate for local requirements, and the effect of the drought is more keenly felt than ever.

### The Building Trade.

No better indication of general improvement can be given than the activity which has taken place in the building trade during the last three or four months in the city and suburbs, and also in many country towns. There is evidence on all sides of reviving prosperity in the erection of public buildings, large business premises, and private dwellings.

No business man will enlarge his premises or erect new ones unless he is thoroughly satisfied that his increased demands justify it, and will pay a return on the outlay.

The same applies to private dwellings. Men with capital to invest will only purchase land and build thereon when they are convinced they will receive a fair return in interest on their outlay. In the procuring and manufacturing of materials, and the employment of such a variety of labourers and trades, there is more work afforded in the building trade than almost in any other industry. Activity in this direction is therefore of immense advantage to the industrial classes of the Colony.

When we consider that contracts for the erection of buildings in and around Sydney during the last two or three months, and now in operation, have been accepted to the value of over a million pounds, we can form some estimate of the great benefit (directly and indirectly) conferred on the general community by this industry alone.

Week by week reveals the fact that, almost daily, large contracts for buildings are being accepted, and which there is every prospect of continuing for some time. The cause of this boom is not far to seek. It is no doubt attributable to the fact that large sums of money are available for investment as soon as opportunity offers, and if I may be permitted to say so, I think that the union of the Australian Colonies has given both the impulse and the opportunity.

### Fossicking.

Fossicking as an industry came into existence in connection with the Bureau in August, 1893, and has in many instances proved a most successful and independent occupation by which to make a living, if not a fortune.

The mode adopted at the present time, is that any person registered on our books, and suitable for the work applies to the Bureau for a pass to some fossicking district, and a miner's right. He is referred to Mr. W. H. J. Slee, of the Mines Department, whose long experience as Chief Inspector enables him to advise the men as to the most suitable districts, and sends him to us with a recommendation for the assistance sought. This is complied with, the man signing a guarantee to refund the cost of same.

The following will show the number sent out fossicking since its commencement:—

1893-94	...	...	...	...	...	...	...	4,516
1894-95	...	...	...	...	...	...	...	10,718
1895-96	...	...	...	...	...	...	...	7,093
Intermediate period...	...	...	...	...	...	...	...	1,733
1896-97	...	...	...	...	...	...	...	1,647
1897-98	...	...	...	...	...	...	...	937
1898-99	...	...	...	...	...	...	...	360
Total	...	...	...	...	...	...	...	27,004

It will be seen that the number sent out for 1898-99 is considerably less than the number assisted in previous years, which is also attributable to the drought. Water is a most important factor in fossicking; in fact, it is vital to the industry, and without it it has naturally suffered. Many of those assisted have done well. In some cases it is said they have discovered valuable reefs, &c., but having insufficient means to work them have sold out to others. Many have also taken up land, and, combining other occupations with fossicking, have been able to send for their families, and have ultimately settled down. In this way hundreds have become permanent settlers in the country, making a good living, with much better prospects of succeeding in life than if they had remained in Sydney, earning a precarious living in the midst of its keen competition.

There are, however, I regret to state, numbers who have been assisted with passes, rights, rations, &c., who have not succeeded (or, I fear, even tried to do so), and have merely used the Department for a different purpose, by going to other employment, and thus evading the guarantee order that they would have to sign, authorising their employer to make the necessary deductions. No effort, however, is spared on our part to detect and discourage such tactics. Men of this class have no idea of appreciation for any assistance the Government may render them at a time when they most needed it, and take a pride, some of them, in evading payment of what they owe. Such men will never get on; and in their own interests the less that is done for them the better.

It is, however, satisfactory to know that since the system came into existence through the Bureau the increase in the value of gold won in the Colony has steadily increased, as the following table amply testifies:—

Year.	oz.	Value.		
		£	s.	d.
1891	...	...	...	...
1892	...	...	...	...
1893	...	...	...	...
1894	...	...	...	...
1895	...	...	...	...
Intermediate period	...	...	...	...
1896-97	...	...	...	...
1897-98	...	...	...	...
1898-99	...	...	...	...

I do not say that this annual increase is entirely due to fossicking, but I think we are justly entitled to take some credit for the large addition to the wealth of the Colony. It is certainly something more than coincidence. There is still a large field for permanent employment in the winning of gold in many parts of the Colony, which, with the latest improved scientific methods of treating ore and the opening up of new gold-bearing districts and river dredging, will assuredly make it one of our greatest and most profitable industries.

#### Casual Labour Farm.

This farm is situated at Pitt Town, near Windsor, and contains about 2,000 acres, formerly known as the Pitt Town Village Settlement. It was converted into its present use over two years ago, with the object of giving casual labour to those (chiefly single men) homeless and destitute, providing food, shelter, and wages from 2s. to 5s. per week.

It is under the management of Mr. A. Hutchison, who has wonderfully improved the place (which had almost become a wilderness) since he took charge.

The work performed has chiefly been farming, gardening, orchard work, wood-cutting, clearing, road-making, &c. If the land were only of better quality it could be made to self-support a large number of men. A considerable quantity of farm produce, vegetables, fruit, and firewood has already been produced, which with good seasons could be greatly increased.

The first batch of ten men was sent in January, 1898. The number sent this year was 137. The average time worked was eleven weeks. Those sent are only allowed to remain three months, so that applicants come and go all the year round. The average weekly wage paid them this year was 3s. 8d. per week. The cost of keeping each man was 3s. 2½d. without vegetables, or 4s. 3½d. with them. The conduct of the men generally the manager reports to be good. Three months of good food, with a home and the exercise of labour, have had a beneficial effect on the physical appearance and health of the applicants. Although the wages were not high, the money has enabled many of them to purchase boots and clothing, of which they were in much need.

#### West Bogan Scrub Clearing.

Notwithstanding all the criticisms levelled against the West Bogan Scrub clearing, it is said by those competent to form an opinion that the work done is a valuable one, and will recoup the Government for the outlay in improving the land and making it fit for occupation. As a means of employment, it has proved a boon to many of the unemployed, enabling them to earn a livelihood for themselves and their families at fair wages. It is but natural to expect that many who went to this work did not succeed, and this for many reasons. Some were unaccustomed to the work; some could not agree with their mates; some would not work together; while others left without a fair trial, the work being too far from Sydney, &c. These remarks apply to a number of those sent to all Government works. Of course, with these the work is always to blame. But the best evidence in favour of this undertaking is the fact that all the genuine workers that have once been there, and completed their work, are always eager to return to a fresh block. Furthermore, when vacancies for the Bogan are announced, those applying to be sent far exceed the number required. Only recently, when five gangs were wanted, twenty-three gangs applied. And later, when two gangs were required, no less than nineteen gangs applied. This, I think, is ample proof that the work and the wages are not so bad as represented by some.

According to the report of the officer-in-charge at Nyngan, about 784 were employed during the year, made up as follows:—Men who had not finished their blocks from the previous year; men employed locally to fill vacancies; and 330 men in fresh gangs (300 of whom were sent from Sydney, and thirty from Nyngan).

A gang consists of ten men, formed by the men themselves appointing their own ganger. Previous to formation they are always advised to select only such as are well known to one another as good and agreeable workers. When this is acted on, the result is always satisfactory. If in a gang of ten there should be two or three indifferent workers, or disagreeable or lazy, disunion sets in, resulting in low wages. Smaller gangs of, say, five or six would be preferable, as the chances of disagreement are reduced. When more than the requisite number of gangs apply, a ballot is taken. The blocks allotted to each gang comprise about 5,000 acres, which is estimated to give about four to six months' work. The price per acre is fixed by experts at from 1s. to 3s. 3d. per acre, according to the density of the scrub, averaging about 2s. 6d. all round. During the year the wages averaged from 5s. to 7s. per day, and the cost of living from 7s. 6d. to 10s. per week for each man. Till the husband is able to send his wife some money, his family in Sydney is provided with provisions, the cost of which remains a charge on his earnings.

Mr. Joseph Walsh, the officer-in-charge of the West Bogan Scrub clearing, has kindly furnished me with the following review of the year's operations under his supervision:—

"In compliance with your request, I have the honor to submit some general information regarding the work done in connection with the clearing of scrub lands, the property of the Crown, situated on the western side of the Bogan River, and near the township of Nyngan.

"The works were first initiated in September, 1896; the land to be operated upon was cut into blocks averaging 5,000 acres each; valuations were made by an experienced surveyor and a local expert of each block, and a price fixed per acre to enable average axemen to earn 6s. per day. At first great difficulty was experienced in dealing with the men, most of whom were inexperienced bushmen and others unwilling to do any class of work; most of those who were inexperienced soon developed into fairly good axemen, those who caused dissention and would not work were gradually weeded out.

"This work has been the means of connecting and educating some hundreds of men, who were mere idlers, into expert bushmen, whose services are now well worth 20s. to 30s. per week on any class of station work.

"Once a month each gang's work is measured by a surveyor, and payments made accordingly, and it is most gratifying to see the amount of money returned to me for despatch to their wives and families in Sydney.

"The land cleared to 30th June last comprises an area of 605,406 acres, costing £81,870, or an average of 2s. 8d. per acre, including all cost of supervision, which was practically useless and abandoned country, and has afforded work for 3,000 men.

"After

"After the completion of about 270,000 acres, certain portions were thrown open for lease, which in most cases were readily applied for, and it is most gratifying to notice large areas now being fenced and subdivided, houses built, and tanks sunk on portions which were a short time ago a perfect wilderness.

"One noticeable feature is the dress and condition of the men after being here a few months. A number of them arrive poorly clad, and without food or blankets; but after a few months' work, the contrast is very great—they look the picture of health, and are well clothed.

"Taken as a whole, the work completed during the preceding two years has been satisfactory, both to employer and the employed. Capable men have been enabled to earn wages averaging between 5s. and 6s. per day, whilst the cost of living has varied from 7s. 6d. to 10s. per week.

"For the last twelve months an area of 168,630 acres has been cleared, at an average cost of 2s. 6d. per acre, and about 784 men employed, their earnings being from 5s. to 7s. per day. The result of experience in this class of work, both by the men and overseers, is that it is being carried out in a thoroughly satisfactory manner, and is much superior to that performed privately on the stations adjoining.

"The scheme, as a whole, having proved so beneficial in every way, it has been decided to further extend the operations, and there is little doubt but that it will prove one of the most reproductive works ventured upon for many years past."

He also kindly enclosed the following statement, contributed by the Government Inspector, which may be of interest to the Hon. the Minister:—

"The Crown has leased, under improvement conditions, 745,439 acres, and a condition of the leases is that not less than 2s. 6d. per acre be expended in the first four years of the lease in thoroughly scrubbing and clearing the land. Of this area, about 550,000 acres have been operated on, and the amount expended on scrubbing is £48,506 19s. 9d.

"In addition, other improvements necessary for the profitable occupation of the land have been effected, at an expenditure of £21,370. The lessees' work was commenced about the same time as the Government scrubbing operations, and the number of men engaged on the work has varied from 500 to 2,000.

"There are now about 620 men employed by the lessees scrubbing and clearing, and the number will be doubled during the next three months, as the recent welcome rains will enable this work to be pushed on with vigour.

"In several instances the work of scrubbing and clearing on the leases has not been so thorough as that done by this Department, though the work, as far as it goes, is just as effective; but the lessees have four years to complete a work which, as far as they are concerned, will leave very little room for criticism, judging by the earnestness and energy displayed up to the present, and it is gratifying to find the action of the Lands Department receiving, in a practical sense, the best possible endorsement.

"Operations, entailing a large annual expenditure, will be carried on on these leases for a further four or five years at least, giving employment during the off seasons to a large number of men.

"It is difficult to arrive at the average earnings of the men employed by the lessees, as a number of them are Chinese. The wage paid to day men, of whom there are a good number, is from 20s. to 25s. per week, with rations and cook found. Tents, tools, and cookery utensils, &c., are supplied by the stations free of cost.

"As far as I can ascertain, the earnings of the men on contract work varies according to the qualifications of the men, some gangs earning from 15s. a week to £2 per week, out of which all expenses have to be met."

### Wages.

The wages offering at the Bureau have been much the same as during the previous year. In some callings there may be a slight difference; but on the whole there has been very little alteration in wages during the last five years.

It is well known that the Bureau does not interfere in the rate of wages, terms, or conditions of employment. Its main object is to bring employer and employee together, leaving it to themselves to make their own arrangements. When, however, an employer offers a low rate, we often write explaining he cannot expect to get a good man at his offer. In this manner frequently an advance is obtained.

An erroneous opinion is often expressed by some that the Bureau is the cause of a reduction in wages, &c. A moment's reflection will convince any reasonable mind that such is not the case. Work and wages are governed by the law of supply and demand, like anything else. It is also well known that where large numbers of men are seeking employment, there is a danger of reduction in wages. And any means that removes this condition can surely claim to have, to at any rate a large extent, averted a reduction of wages.

The Government Labour Bureau has, during its existence of seven and a half years, assisted and sent to work no less than 89,000 men, distributed over all parts of the Colony. Of course, a large number of these have returned; but they have been sent away again and again. Some may argue that these were loafers, whose competition was not to be feared; but such is not the case. Most of these men represented as capable a body of workers as any in this or any other city, and comprised all classes and callings, professional, clerical, mechanical, and labouring—all genuine working men. The Bureau, therefore, instead of having been the means of reducing wages, has, on the contrary, done more than any other institution to remove competition, and thereby protect the rate of wages.

Wage frequently is a factor in the well-being of a country, and denotes the character and condition of the people among whom it prevails. Low wages, as a rule, denote poverty, while high wages give encouragement to energy, perseverance, and diligence. For proof of this, we have only to look to those countries where high or low wages prevail. Good wages always indicate the prosperity of a community, and are therefore well worth aiming at. A good steady workman will always command good wages. The difficulty is to equalize the rate generally, hence the trouble in finding employment for inferior or incompetent workmen or old men. And should these accept work at their own value, the Bureau should not be held responsible. Unfortunately these become a burden on the State, and the difficulty of finding employment for this class is increased by the fact that, should the Government find any light work to suit them at piece-work or wages, the able-bodied men living in and around Sydney immediately rush in to participate rather than take work in the country on account of their families.

However,

However, it is far better to employ old men, or those unfitted for hard work, at some light labour they can perform, than give them free rations, if it can possibly be avoided. For the latter undoubtedly demoralises them, destroying what little energy some of them may have for honest labour.

### The Unemployed Difficulty.

This subject has claimed the attention of many public men during the last ten years. The problem has been very fully discussed in the Press and on the platform. Royal Commissions and Boards have carefully considered and reported on the subject. But, unfortunately, up to the present, there has been no satisfactory solution. It has been a great source of trouble to Government, by which endeavours have been made to meet the difficulty by providing work for the unemployed as far as possible during the year.

This year the trouble was considerably accentuated by reason of the prolonged drought. But everyone will rejoice at the fairer prospect appearing at last in copious rains over the greater portion of the Colony, and the promise of a good season, which, if only realized for the next year or two will do more than all the theories advanced to solve the unemployed difficulty. I may here be permitted to offer a few brief remarks on this question, as they appear to me in my experience in dealing with the unemployed, dividing them into three sections:—

1. The strong and willing man.
2. The indolent and lazy, who will not work.
3. The old and incapable.

1st.—All that the strong and willing want is the opportunity. How to give it them is the difficulty. Temporary Government relief work only assists for a time, although a boon to steady men with large families depending on them. But in many cases the danger is ever present of its sapping their manhood and independence, and destroying their energy, inducing them to look solely to the Government to supply them with work or support their families, thus throwing their responsibilities on the state under which they live. This does not tend to the healthy, robust, and manly independence of a good citizen. I am confident that one or two good seasons will considerably solve this matter, and any action that will occasion similar results to that produced by good seasons on a community will assist materially in the solution of the unemployed problem. The Federation of the Australian Colonies will most undoubtedly increase the opportunities for all the industrial classes. With increased expenditure of public and private capital, more permanent employment, removal of all intercolonial barriers making us one people with one destiny, will most assuredly enhance the scope of our energies.

2nd. The idle and lazy who will not work deserve very little consideration. There is in this city a number of this class who roam about begging, cadging, and stealing, disfiguring our parks and streets; who are a nuisance and a menace to the general community, and a disgrace to all genuine working men; and who I regret to say are encouraged in their idle worthless life by a too generous and liberal public who are so charitably disposed that they never stop to consider. This class always attends the Bureau when any relief in the shape of rations is given out, and as a rule attends all the other charitable institutions for the same purpose. These men never work or apply for it. There is only one method of dealing with them, and that is to apply the rule of "Work or starve." Prosperity or depression makes no difference to them, they ever remain drones in the busy working hive. With a view to reformation, if this rule were applied whenever and wherever possible it would be much better for themselves and the general community.

3rd. Old men unfitted for heavy work.—Of these there are from 600 to 700, aged from 55 to 80, and are the most difficult to provide for. Many of them are married men, several with young children to support. No employer will select them for heavy manual labour, although most of them are willing to work; and, notwithstanding their age, are as good if not better workers than many young men.

Unless these old men have children or friends to provide for them (which obligation, I regret to say, is invariably overlooked), the only alternative left for them is to go to an asylum, and this necessitates a separation of man and wife in their old days; and any system that avoids this undesirable contingency by providing and admitting aged couples to spend the few remaining years of their life together would be far preferable. I am satisfied that most of the old men who apply to the Bureau for light work, and also a large number of them at present in our asylums, are quite capable of earning, if not the whole cost of their living, at least a great portion of it, while the very exercise in doing so would be most beneficial to them.

Having this in view, and bearing in mind the cost of the present method of dealing with them, I would respectfully suggest the following, which I will call

### The Barrack System.

Attached is a rough sketch, giving a plan of it. It represents (say) an area of 1,000 acres, more or less, reserved for the purpose, with a square as near as convenient in the centre thereof, comprised of two-roomed dwellings for each married couple, or old single men in couples. There would be an oval of green in the centre for recreation purposes, and flower-beds in each corner, with a wide pathway all round; also a verandah. In the case of children, there could be a school; also a hall or church for religious services, lectures, concerts, &c. The surrounding land could be worked in the cultivation of vegetables, flowers, fruit, &c., and furnish light employment for these old people. Among them there would doubtless be many tradesmen, who could make boots, clothes, &c., while the carpenters, tin-smiths, and others could also be employed. On this settlement, of course, it would be imperative to have ground of good quality, suitable, and not far from market. The manager would have to be a person thoroughly accustomed to old people, with sufficient knowledge of the work required to instruct them in it. If such a system were tried with, say, from 200 to 300 old people, as an experiment, I am confident the last days of their lives could be made far happier at a cost much less than is possible under our present system, as a large portion of the old men would be willing and capable of light work, and by their earnings contribute towards their own support.

Number



## Number of Unemployed.

After careful calculation I estimate the number of unemployed in an around Sydney at from 3,000 to 4,000.

At the end of the year there was a slight indication of an increase; but as we have sent over 1,000 men to railway deviations, forest-thinning, Bogan scrub-clearing, and to private employers, during the last six weeks, this number is considerably reduced. It is not possible to do more than estimate the number of unemployed at any given time, because there is always a good deal of casual or irregular labour—a day a week, or a week per month. Thus, while there may be, say, 1,000 idle to-day, there may be only half that number the next day.

Comparing the character and number of unemployed at the present time with what it was some five or six years ago, there is, I am happy to say, a very marked improvement and decrease generally. For instance, in 1895, we had from 1,000 to 1,500 working daily at the Centennial Park for rations, while, during the winters of 1892–93 and 1894, we sheltered from 1,000 to 1,200 per night at the old Exhibition and the Woolloomooloo sheds. At this time there were daily and nightly processions of unemployed through the streets of Sydney, and a continual menacing agitation going on, Parliament House having to be guarded by the police against invasion, &c.

The chief causes of depression during those years was doubtless due to the effect of the memorable maritime strike and other industrial disputes, together with the terrible losses and disasters brought about by the financial crisis of 1892 and 1893.

Comparing those times with the present, I have no hesitation in saying that the whole character, condition, and numbers of the unemployed have been significantly improved in all its bearings and surroundings, and with the recent general rainfall there is every hope of good seasons, which, together with the certainty of a United Australia (already referred to), will increase and multiply the avenues of labour, and we can, I think, hopefully look forward to every capable and willing worker in the Colony being employed.

That there should be any genuine capable worker unemployed out of our comparative small population on this vast territory, with its immense natural resources, wealth, and possibilities, may seem strange. But, unfortunately, it is true not only in this but in every other Colony.

Much has been done to lessen and mitigate this evil (with more or less success), and it is most pleasing to note that the opinion of thousands of our fellow citizens to-day is that with Federation it will entirely disappear.

## Registry Offices.

Legislation for the purpose of licensing all registry offices in the city is much required, and, as I understand the Minister has prepared a Bill, I think it will soon become law, in order that those who apply at these offices for employment may be protected from imposition. This Department has had ample experience that several registry offices after charging excessive fees have sent applicants to bogus situations. In other cases fees have been taken from several people for a situation requiring only one. Several of the keepers of such offices have been prosecuted for victimising people for the purpose of obtaining fees.

## Relief.

The only relief issued at the Bureau during the year was to married women and children in Sydney whose husbands were in the country seeking employment. Such are known as free rations. Rations were also advanced to the families down here of men employed on the Bogan clearing, the cost of same being deducted from their earnings. The extent of the foregoing was as follows:—

	£	s.	d.
Free Rations	53	10	2½
Bogan „	71	2	4¼
	£124	12	6¾

Rations have also been issued to men going fossicking, costing £30 3s. 9d., which was paid for by the Mines Department.

During the year I visited Bourke twice, and Cobar once, in connection with the relief grants for the local destitute unemployed, which I have already referred to.

## Refunds.

The amount of refunds for rail and steamer fares, miners' rights, rations, and miscellaneous items, received at the Bureau and its branches for the year came to £2,646 6s. 2d., or a decrease of £155 13s. 9d. compared with the preceding year. For rail and steamer passes alone £2,547 1s. 11d. were refunded, which is equal to almost 70 per cent. of the cost represented. This is very satisfactory. The grand total refunded to the Bureau and its branches amounts to £20,598 12s. 10d. There is still, however, a considerable amount due to the Department. A strict system, of monthly circulars is in force to those indebted to the Bureau.

In the collection of fares I am much indebted to the assistance (in extreme cases) of the police, who, through the courtesy of the Inspector-General, Mr. Fosbery, have collected items in remote districts, which would otherwise have been lost. To make the work more uniform, the head office took over from the country branches the task of collecting the cost of passes issued by them on my authority.

I may here be permitted to point out that, although the cost of rail passes is large, it is not actually a burden on the country, from the fact that the railways are owned by the Government, and the despatch of unemployed has never at any time necessitated an extra ton of coal or an extra man, and the trains would have run just the same if no unemployed were carried. The real cost, therefore, is that in connection with the management and maintenance of the Bureau. This cost, since its inception, has, by the refunds, been exceeded by £10,202 18s. 6d., which represents an annual profit of about £1,360 for each of the seven and a half years that the Bureau has been established.

### Country Branches.

Most of the country reports point out the sad effects of the drought on labour and industry in many districts of the Colony. Two or three of the districts benefited by receiving a little rain, and having feed to dispose of to drought-stricken districts.

The whole of the forty-two reports go to show the wonderful enduring capacities of the Colony generally, and the immense resources of production which is possible under more favoured seasons, unequalled, perhaps, by any country in the world.

But for the drought there would have been very few unemployed in the country districts, and under the circumstances there were not so many as I anticipated. The number registered during the year at the branches was 686, and the number assisted and sent to work was 224.

I have to thank the whole of the country agents for their kindness and attention in furnishing me with their monthly and annual reports, which have enabled me to place before the Minister information relating to the state of labour and industry in the various districts of the Colony.

According to the reports (which are hereto attached), there has not been any appreciable difference in the rate of wages for the year.

### Summary.

The average daily attendance of unemployed at the Bureau has been from 150 to 500, and, on such occasions as the selection of men for railway deviations, has been as high as 800. The men come and go all day. When they find nothing suitable on the "wanted" board, the more energetic of them go elsewhere in search of work. The conduct of the men, generally, is good, with the exception of a few agitators who never will be satisfied. Frequently, when men have been required, and a selection about to take place, these agitators have endeavoured to persuade the men to follow them to the Queen's Statue or the Park, where they roundly abused everybody, from the Government downwards.

Generally speaking, the men readily submit to the rules of the Department. Those inclined to be unruly have to be treated firmly, in their own interests and those of good order prevailing in the Bureau.

All persons that apply to be registered are required to produce an elector's right, or a letter from some responsible person to certify that they have been for at least twelve months genuine residents of the Colony. It is surprising in the extreme to find so large a number of persons as we have who have never troubled to get an elector's right, although of age, born natives, or resident in the Colony for many years. Since this rule has been enforced during the last two years, many hundreds have been added to the voters of the Colony. There are still large numbers of foreigners who have been residing in the Colony for years, but not naturalised, and for that reason are not in possession of electors' rights. Many of these, it may be presumed, take an active part in all Parliamentary elections, but have no vote to support their very energetic demonstration.

The number of applicants from the other colonies for registration was 171, or a decrease of 496 compared with the preceding year.

I am pleased to acknowledge the assiduous and willing assistance rendered by my staff in carrying out the operations of the Government Labour Bureau during the year.

As a means of providing for aged people, the old-age pension schemes have been widely discussed, but at present it may be said to be only on trial. If experience proves this system to be satisfactory and effective, I have no doubt it will be adopted by this and other colonies. At the same time I fear the proposals in this direction, hitherto advanced, will fail to meet the circumstances of a large section of the aged poor.

I have, &c,  
 JOSEPH CREER,  
 Superintendent.

CLASSIFICATION of Trades and Occupations during the year ending the 30th June, 1899; and a comparison of same with previous years.

Trades.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	Trades.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.
Accountants				4	2	5	Coach-trimmers				1	2	
Acrobats			1				Commercial						
Actors		1			2		travellers	15	20	13	6	4	4
Agents				3			Commission agents						1
Architects	1	4	5	3		1	Compositors		61	92	18	9	22
Art decorators			1				Condiment-makers		1		4		
Artesian-well							Confectioners	8	14	6	2	1	4
borers		2	2		1	1	Cooks	314	262	275	156	96	66
Artists	4	2	1	2	1	2	Coopers	8	13	18	11	8	12
Artists' models		2					Coppersmiths	5	4		1		1
Asphalters	7	5	9			1	Cordial-makers	9	10	8	3	1	6
Assayers		5	2		2	1	Cork-cutters						1
Auctioneers	3	3	1				Curriers	8	4	8	5	2	4
Axemen						2	Cutters (tailors)				1		
Bacon-curers		1	1		1	2	Dairy hands	66	43	41	39	26	28
Bakers	149	109	129	89	50	44	Dealers		21	94	42	29	18
improvers						1	Dentists		1	2	1	1	
Ballad writers				1			Divers			4			
Barbers	2	2	1	2			Draftsmen		8	6	2	2	2
Barmen and boots	30	21	21	6	4	3	Drainers		3	4	9		1
Barristers				1			Drapers		44	57	30	16	10
Basket-makers	7	2	7	5			Drovers			3			
Bellows-makers		1					Dyers		3	1	3	2	3
Billiard-makers	1		2	2	1	2	Electricians		4	9	7	1	1
Blacksmiths	201	174	156	68	38	45	Electroplaters				1		
strikers						13	Engine-drivers		102	103	80	51	33
improvers						1	Engineers, civil						
Boatbuilders	4	2	2	2	1	3	„ electric						
Boatmen			1			1	„ gas						
Boiler-makers	74	33	26	10	8	7	„ mechanical	158	138	100	45	22	38
Bone-carvers			1				„ marinet..					1	1
Bookbinders	4	6	7	5	5	9	„ minung.						
Book-keepers				3	1	1	Engine fitters						5
Boot-finishers and							Engravers		1	6		1	
operators		2	8	30	6	2	Factory hands				2	2	1
Boot clickers						2	Farm hands	473	407	222	208	130	98
Bootmakers	89	77	201	89	31	49	Farriers		11	5	20	15	6
Bottlers	3	6	8	1	2	1	Fellmongers		3	67	69	55	16
Box-makers				1	1		Fencers		3	3		1	1
Brassfinishers		3	10	3		3	Firemen		99	68	69	42	30
Brassfitters						1	Fishermen			4	15	12	10
Brassmoulders	5	4	2	2		1	Fitters		19	29	42	12	10
Brassworkers			1				Florists			1	3		
Brewers and hands	5	6	3	2	6	2	Foundry hands			1	33	3	
Bricklayers	206	123	110	46	23	13	Frame-makers						
Brickmakers	81	86	87	23	10	10	(picture)				2	3	
Bridge hands	16	9	19	12	7	1	French polishers		14	15	11	4	2
Brush hands and							Fruiterers						1
makers	1	4	1				Furnacemen			1			1
Builders	5					1	Furriers			3			
Bushmen		190	183	146	52	32	Galvanizers				3		
Butchers	199	196	212	144	97	65	Gardeners (flowers)		155	152	137	86	59
Butlers			1				„ (fruit)						
Bicycle makers						1	„ (vegetable)					2	1
Cabinet-makers		5	11	2		1	Gasfitters					1	
Cabmen			2		1		Generally usefals.		762	396	345	208	133
Candle-makers				1			Glass-bevellers						2
Cannister-makers				1			Glass-blowers						1
Canvassers	19	26	44	11	5	5	Glass-makers		1				
Cardbox-makers				1			Glass-stainers			4			
Carters, wool							Glaziers				3		
Caretakers	15	16	14	6	2	8	Goldsmiths			1			
Carpenters, bridge	576	537	339	150	4	11	Graziers					1	2
„ general					75	82	Greengrocers					5	1
„ house					24		Grocers		86	72	73	33	23
„ ships						3	Grooms		368	323	272	169	103
Carpet-layers		1					Gilders					1	
Carters	348	321	472	181	107	103	Guards (railway)						1
Carvers, stone				1	1		Gunsmiths			3	3		2
„ wood						1	Hairdressers		33	21	24	6	4
Casomakers		6	5			3	Hair-workers						
Cellarmen	5	3	1	3		1	Harness-makers					6	3
Chainmen	23	19	20	3	4	4	Hat-blockers						1
Chairmakers		1		1		1	Hat-finishers					1	
Charcoal-burners			1				Hatters		4		3		
Chemists		12	17	4	4	2	Herbalists						
Chimney-sweeps		1	4	1			Horse collar makers				2		
Cigar-makers					1		Horse-trainers			4			
Cigarette-makers			1				Hydropathists				1		
Circus hands		2					Inkmakers			1			
Civil engineers		4	5				Iron-dressers				1		1
Clay-modellers	1	1					Ironfounders					1	
Clerks	264	263	264	155	104	87	Ironmongers		13	12	20	9	6
„ mercantile						19	„ saddler's						1
Cloth-weavers		2	1				Iron-moulders		63	22	39	9	9
Coachmen	6	17	10	10	4	5	Iron-turners			31	9	4	3
Coach-body-makers	41	12	8	6	3	4	Ironworkers		23	16	25	7	
Coach-painters	5	11	13	6	1	4	Ivory-turners						
Coachsmiths		15	9	1			Jamnamakers				5	1	





COMPARATIVE STATEMENT showing results for the years ending 17th February, 1893, 1894, 1895, 1896, and 30th June, 1897, 1898, and 1899.

Table giving the number registered for each of the above years; number assisted and sent to work for the same periods; amounts refunded for railway passes, miners' rights, &c.; number of fossickers sent out from Sydney and Country (inclusive), together with increase or decrease under each head.

NOTE.—This return does not include those men who were employed on the different relief works for rations only, and it will be noted there is a broken period accounted for owing to altering the date of our annual reports to suit the financial year, viz., 1st July to 30th June.

Years.	No. Registered.	Increase or decrease.	No. Assisted and sent to work.	Increase or decrease.	Refunded for railway passes and miners' rights.	Increase or decrease.	No. of Fossickers.	Increase or decrease.	Remarks.
1893	18,600	.....	8,154	.....	£ s. d. 1,135 16 1	£ s. d. .....	.....	.....	Fossickers were not sent out the first year.
1894	12,145	D. 6,455	10,349	I. 2,195	2,676 10 0	I. 1,540 13 11	4,516	.....	
1895	13,575	I. 1,430	16,380	I. 6,031	2,477 15 8	D. 198 14 4	10,718	I. 6,202	
1896	14,062	I. 487	20,576	I. 4,196	4,235 19 6	I. 1,758 3 10	7,093	D. 3,625	
Intermediate 18 Feb. to 30 June	3,283	.....	5,327	.....	1,227 7 7	.....	1,733	.....	
1897	6,427	D. 7,634	13,718	D. 6,858	2,864 19 6	D. 1,371 0 0	1,647	D. 5,446	
1898	4,167	D. 2,260	7,817	D. 5,901	2,801 19 11	D. 62 19 7	937	D. 710	
1899	3,843	D. 324	7,228	D. 589	2,557 10 2	D. 244 9 9	360	D. 577	
Total.....	76,102	.....	89,549	.....	19,977 18 5	.....	27,004	.....	

TABLE showing various trades and callings to which persons have been assisted and sent to work in town and country; summary of wages recorded; together with comparative figures for the years 1897, 1898, 1899.

Trades and Occupations.	1897.		1898.		1899.		Wages Recorded.		
	Town.	Country.	Town.	Country.	Town.	Country.	1897.	1898.	1899.
Accountants and Bookkeepers...	...	3	...	6	...	5	.....	£50 to £65 per ann.	£52, £60, £75, and £150 per annum.
Artesian well-borers .....	...	...	...	1	...	...	.....	25s. per week	.....
Artists' models .....	...	...	1	...	3	...	.....	2s. per hour	2s. per hour.
Asphalters .....	2	...	...	...	...	...	Contract .....	.....	.....
Assayers .....	...	...	...	2	...	1	.....	£3 10s. per week	.....
Attendants, Hospital .....	2	3	1	2	...	...	£50 to £70 per ann.	£52 p. ann. & found	.....
Bakers .....	4	55	...	31	2	41	20s. to 50s. per week.	25s. to 45s. per week.	22s. 6d. to 40s. and found; 55s. to 60s., find self.
Barmen and boots.....	...	...	...	1	...	...	.....	20s. and found	.....
Bee-farmer.....	1	...	...	...	...	...	.....	.....	.....
Billiard-markers .....	3	...	...	...	...	3	15s. to 20s. & found.	.....	15s. to 20s. & found
Bird-trappers.....	...	2	...	...	...	...	Own account .....	.....	.....
Blacksmiths .....	26	31	8	17	5	14	20s. to 50s. per week.	25s. to 50s. per week.	20s. to 25s. found; 50s., find self; and 8s. and 9s. per day.
Boatbuilders .....	...	1	...	...	...	...	.....	.....	.....
Boiler-makers .....	8	3	...	...	...	2	1s. per hour .....	.....	10s. per day.
Bootmakers .....	2	12	1	9	1	6	Piece .....	Piece & 35s. p. week.	40s. to 50s. p. week, piece.
Brass-finishers .....	4	1	1	...	2	...	1s. per hour .....	1s. per hour .....	1s. 1d. per hour, 42s. per week.
Brewers' hands.....	1	3	...	...	...	...	25s. to 30s. per week	.....	.....
Bricklayers .....	73	35	14	13	14	10	7s. to 9s. per day ...	7s. to 9s. per day & contract.	9s. to 10s. per day, and fare allowed; 1s. 4d. per hour.
Brickmakers .....	...	5	...	13	...	8	Contract, 7s. p. day.	8s. p. day & contract.	14s. per 1,000 on the hack; 22s. per 1,000 at the kiln.
Bridge hands.....	4	4	...	4	...	1	1s. per hour .....	8s. per day & piece.	8s. and 9s. per day.
Bullock-drivers .....	...	1	...	...	...	...	20s. p. week & found.	.....	.....
Bushmen .....	24	82	...	20	...	...	12s. to 20s. per week.	15s. to 20s. p. week and found.	.....
Butchers.....	8	91	...	63	...	22	15s. to 40s. per week	20s. to 50s. p. week and piece.	25s. to 30s. per week and found; and freezing works, piece.
Cabinet-makers .....	1	...	1	...	...	1	1s. per hour .....	Piece .....	40s. per week.
Canvassers .....	17	1	...	2	1	3	Salary & commission	Salary & commission	Salary & commission

Trades and Occupations.	1897.		1898.		1899.		Wages Recorded.		
	Town.	Country.	Town.	Country.	Town.	Country.	1897.	1898.	1899.
Carotakers .....	2	...	2	1	1	...	5s. to 12s. 6d. p. week and found.	12s. 6d. to 15s. per week and found.	.....
Carpenters and joiners .....	117	69	49	44	42	29	6s. to 9s. per day ...	7s. to 10s. per day	1s. 1½d. per hour, 8s. to 10s. per day; fares paid.
Carpenters (foremen) .....	...	...	...	...	...	1	.....	.....	13s. 6d. per day.
Carpenters (bridge) .....	3	45	3	8	...	9	6s. to 9s. per day ...	8s. to 9s. per day ...	8s. to 9s. per day.
Carpenters (ship) .....	...	2	...	...	...	...	.....	.....	.....
Carpet layers and beaters .....	1	...	1	...	...	...	1s. per hour .....	1s. per hour .....	.....
Carters .....	...	...	1	4	...	...	.....	20s. to 25s. p. week and found.	.....
Casemakers .....	2	...	...	...	...	...	.....	.....	.....
Chaffcutters .....	...	...	1	...	...	...	.....	Contract .....	.....
Clearers .....	...	...	3	62	...	140	.....	Contract .....	15s. to 20s. p. week, found; 6s. p. day and contract.
Clerks .....	...	13	4	12	1	7	15s. to 50s. per week	25s. to 50s. per week	20s. to 60s. per week.
Coach trades .....	4	2	2	3	...	2	1s. per hour & piece.	1s. per hour & piece.	1s. per hour.
Commercial travellers .....	...	...	...	2	...	1	.....	.....	.....
Compositors and printers .....	2	3	4	3	...	10	Piece .....	Piece .....	20s. to 30s. & piece; printers, 55s.
Concrete hands .....	5	...	1	...	...	...	10d. p. hour & piece	Piece .....	.....
Cooks (male and female) .....	7	81	4	75	8	64	12s. 6d. to 35s. p. wk.	15s. to 40s. per week.	15s. to 70s. per week
Coopers .....	2	...	1	2	...	2	1s. p. hour and piece	25s. p. wk & found, & piece.	Piece.
Cordial-makers .....	...	...	...	1	...	...	.....	.....	.....
Coke drawers .....	...	...	...	...	...	2	.....	.....	Piece.
Circus hands .....	...	...	...	1	...	...	.....	.....	.....
Curriers and tanners .....	1	1	...	3	...	...	.....	40s. to 45s. per week.	.....
Dairy hands .....	9	7	11	15	5	10	8s. to 15s. per week and found.	8s. to 20s. per week and found.	10s., 12s., 15s., and 20s. per week.
Dealers .....	...	...	...	1	...	...	.....	.....	.....
Doctors .....	...	...	...	...	...	1	.....	.....	.....
Draftsmen .....	1	...	...	1	...	...	.....	.....	.....
Drainers .....	5	...	2	1	1	...	1s. per hour .....	1s. per hour .....	1s. per hour.
Drapers .....	...	7	2	4	...	1	£1 to £2 per week and found.	25s. to 30s. p. week, and found.	25s. p. wk. & found.
Drovers .....	...	7	...	5	...	5	15s. to 20s. per week, found.	20s. to 25s. p. week, found.	20s. to 25s. per week and found.
Editors, newspaper .....	...	...	...	1	...	1	.....	.....	70s. per week.
Engine-drivers .....	3	15	...	11	1	15	25s. to 35s. per week.	25s. to 60s. per week.	6s. to 8s. per day; 25s. to 50s. and 60s.
Engine-fitters .....	...	...	...	5	...	2	.....	1s. per hour, 40s. to 50s. per week.	9s. per day.
Engineers .....	3	11	1	8	...	6	70s. per week .....	30s. to 50s. per week	30s., 45s. to 50s. per week.
„ electrical .....	...	...	1	...	3	...	.....	.....	.....
Eucalyptus leaf picker .....	...	...	...	...	...	1	.....	.....	Piece.
Factory hand .....	...	...	1	...	...	...	.....	.....	.....
Farm, orchard, and plough hands	12	110	8	84	10	84	8s. to 20s. per week and found.	8s. to 25s. per week, found.	10s., 15s., 17s. 6d., and 20s. per week and found.
Fellmongers .....	...	34	...	48	...	4	.....	6s. 6d. to 7s. 6d. per day.	7s. per day.
Fencers .....	9	...	1	6	...	8	6s. to 7s. per day and contract.	7s. per day, contract	Contract.
Firemen .....	3	...	...	1	...	2	6s. per day .....	6s. 6d. per day .....	6s. 6d. per day.
Fishermen .....	...	4	...	...	1	...	Own account .....	.....	.....
Flour-mill hands .....	...	5	...	...	8	...	£1 to £1 5s. per week, found.	.....	4s. per day (lads only).
Fossickers .....	...	1,647	...	937	...	360	Own account .....	Own account .....	Own account.
French-polishers .....	1	...	...	...	...	...	1s. per hour .....	.....	.....
Furnacemen .....	1	12	...	...	...	1	6s. per day .....	.....	8s. per day.
Gardeners .....	20	15	17	23	12	17	10s. to 27s. 6d. per week.	10s. to 25s. per week, found.	6s. per day, 15s. to 17s. 6d. per week, £40 to £50 per annum.
General useful (lad and young men).	187	112	91	56	59	81	5s. to 20s. per week, found.	5s. to 20s. per week, found.	5s. to 20s. per week and found.
General useful (old men).									
Glaziers .....	...	1	...	...	...	...	.....	.....	.....
Governesses and female servant	1	93	5	7	...	16	8s. to 15s. per week, found.	9s. to 15s. per week, found.	8s. to 15s. per week and found, household servants only.
Grocers and hands .....	...	4	1	5	...	1	15s. to 35s. per week	17s. to 30s. per week	.....
Gum-pickers .....	...	1	...	...	...	...	Piece .....	.....	.....
Grooms .....	37	22	11	15	9	28	10s. to 20s. per week, found.	10s. to 20s. per week, found.	15s. to 30s. per week, found.
Hair-dressers .....	...	4	...	2	...	4	15s. to 30s. per week, found.	25s. per week, found, and 45s.	25s. per week, found, and 45s. to 50s., and self.
Hospital nurse .....	...	...	...	...	...	1	.....	.....	.....
„ wardsmen .....	...	...	...	...	...	2	.....	.....	£52 per annum, £65 married man.
Horse-breakers .....	...	1	...	...	...	1	Per head .....	.....	25s. per week, found.
Horse-clippers .....	...	...	...	...	1	...	.....	.....	Piece.
Horse-drivers .....	31	13	2	6	5	3	12s. 6d. to 25s. per week.	15s. to 25s. per week	.....

Trades and Occupations.	1897.		1898.		1899.		Wages Recorded.		
	Town.	Country	Town.	Country	Town.	Country	1897.	1898.	1899.
Horse-trainers .....	...	...	...	1	...	2	.....	.....	.....
Iron-fitters .....	18	10	2	...	...	...	1s. per hour .....	1s. per hour .....	.....
Ironmongers .....	...	1	...	1	...	...	.....	30s. per week and found.	.....
Ironmoulders .....	...	2	...	4	...	...	1s. per hour .....	1s. per hour .....	.....
Ironturners .....	3	3	...	3	1	1	1s. per hour .....	1s. per hour .....	1s. 2d. per hour.
Ironworkers .....	...	2	...	...	...	...	1s. per hour .....	1s. per hour .....	.....
Jockeys .....	...	...	...	...	...	2	.....	.....	.....
Journalists .....	...	1	...	1	...	...	.....	.....	.....
Kitchenmen .....	5	5	11	1	3	...	7s. to 15s. per week, found.	7s. 6d. to 15s. per week, found.	10s. to 15s. per week, found.
Labourers .....	177	247	26	78	57	165	5s. to 7s. per day...	5s. to 7s. per day, 1s. per hour.	5s. and 6s. per day, 1s. per hour.
"    Bogan Scrub .....	...	905	...	548	...	298	Piece .....	Piece .....	Piece.
"    Botany Sewage Farm .....	2,920	...	1,317	...	183	...	6s. per day .....	6s. per day .....	6s. per day.
"    Casual Labour Farm .....	...	...	...	44	...	137	.....	.....	.....
"    Centennial Park and Kensington. .....	1,003	...	1,107	...	588	...	5s. per day .....	5s. per day .....	5s. per day.
"    Forest Department .....	...	27	...	69	...	...	6s. per day .....	6s. per day .....	.....
"    Glebe Island .....	...	...	127	...	99	...	.....	6s. per day .....	6s. per day.
"    Homebush Reclamation Works. .....	...	...	...	...	35	...	.....	.....	6s. per day.
"    Mittagong Road Works. .....	...	...	...	...	...	127	.....	.....	6s. per day.
"    Railway Deviations .....	...	49	...	299	...	826	6s. per day .....	6s. per day .....	6s. per day.
"    Randwick, Church and School Lands. .....	1,034	...	...	...	...	...	Piece .....	.....	.....
"    Randwick Quarries .....	32	...	...	...	...	...	Piece .....	.....	.....
"    "    Rifle Range .....	177	...	246	...	...	...	Piece .....	Piece .....	.....
"    Shea's Creek .....	2,442	...	1,218	...	...	...	7s. per day .....	7s. per day .....	.....
"    Stock Routes .....	...	60	...	25	...	...	6s. per day .....	6s. per day .....	.....
"    Christmas work. ....	...	...	...	...	2,601	159	.....	.....	5s. and 6s. per day.
Laundrymen and laundresses ..	...	2	...	6	1	1	.....	15s. to 20s. per week	20s. per week; laundresses, 12s.
Leather dressers .....	...	...	...	...	1	...	.....	.....	.....
Machinists, iron .....	...	4	...	...	...	...	1s. per hour .....	.....	.....
Married couples (1899, children of).	5-10	51-102	...	19-38	...	28-56	£40 to £80 pr. ann.	£40 to £104 per ann.	£45 to £75 with £10 bonus, in some cases coach fare paid.
Masons, marble .....	1	...	...	...	...	...	1s. per hour .....	.....	.....
"    rubble .....	10	8	2	3	3	...	5s. 6d. to 8s. per day	6s. to 7s. 6d. per day.	8s. to 9s. per day.
"    stone .....	29	2	2	14	3	6	7s. to 8s. per day...	7s. to 9s. per day...	8s. to 10s. per day.
Mattress maker .....	...	1	...	...	...	...	.....	.....	.....
Meat preservers .....	...	1	...	...	...	...	.....	.....	.....
Millers .....	...	1	...	4	...	2	.....	£3 to £3 10s. per week.	£3 per week.
Millwrights and hands .....	...	2	...	3	...	...	7s. per day, £1 per week, found.	25s per week, found, 40s. to 50s. per wk.	.....
Miners, coal .....	...	...	...	...	...	...	.....	.....	Piece.
"    copper .....	...	...	...	...	...	...	.....	.....	7s. 6d. to 9s. per day.
"    diamonds .....	...	...	...	...	...	...	.....	.....	.....
"    gold .....	7	148	...	114	...	117	35s. to 50s. per week	7s. per day, 4s. to 50s. per wk. and contract	7s. to 8s. per day, 40s. to 45s. per wk.
"    shale .....	...	...	...	...	...	...	.....	.....	Piece.
"    silver .....	...	...	...	...	...	...	.....	.....	.....
Mine managers .....	...	2	...	...	...	...	.....	.....	.....
Musicians .....	...	...	...	1	...	...	.....	.....	.....
Oilmakers .....	...	1	...	...	...	...	Contract .....	.....	.....
Oven-maker .....	...	1	...	...	...	...	.....	.....	.....
Painters and paperhangers .....	68	19	24	9	12	8	5s. to 8s. per day...	5s. to 8s. per day.	1s. per hour, 7s. per day.
Pattern-makers, iron .....	2	1	...	...	...	...	1s. per hour .....	.....	.....
Photographers .....	...	...	...	1	...	...	.....	6s. to 7s. per day...	.....
Pipe-layers .....	6	...	...	...	...	...	.....	.....	.....
Plasterers .....	15	6	3	11	2	13	1s. per hour .....	1s. per hour and piece.	1s. per hour, 7s. 6d. to 9s. per day, 1s. 1½d. per hour, and fare paid.
Plate-layers .....	5	9	8	...	...	1	.....	.....	8s. per day.
Plumbers .....	12	9	5	2	4	...	6s. 6d. to 7s. per day	7s. per day .....	7s. to 9s. per day, piece.
Porters .....	...	...	2	...	...	...	.....	.....	.....
Quarrymen .....	18	7	...	10	2	4	6s. to 8s. per day...	7s. to 8s. per day...	6s. 6d. to 8s. per day.
Rabbit-trappers .....	...	...	...	...	...	4	.....	.....	Own account.
Saddle and harness makers .....	1	8	...	5	...	3	25s. to 40s. per week	30s. per week and piece.	25s. per week and 35s. found.
Sawyers .....	3	13	...	5	...	1	Piece .....	Piece .....	Piece.
Scabblers .....	5	...	...	...	...	...	5s. 6d. to 6s. 6d. per day.	.....	.....
Shearers .....	...	103	...	79	...	72	Per 100 .....	Per 100 .....	Per 100.
Shipwrights .....	4	1	2	...	...	...	1s. per hour .....	1s. per hour .....	.....
Signwriters .....	3	...	...	...	...	...	Piece .....	.....	.....
Slaters and shinglers .....	1	...	1	...	2	...	Piece .....	Piece .....	8s. per day.
Slaughtermen .....	...	5	...	...	...	...	Piece .....	.....	.....
Slesper-cutters and squarers ..	...	11	...	...	...	23	Contract .....	Contract .....	Contract.
Smelters .....	2	4	...	3	...	1	.....	9s. 6d. per day .....	9s. 6d. per day.



Trades and Occupations.	1897.		1898.		1899.		Wages Recorded.		
	Town.	Country	Town.	Country	Town.	Country	1897.	1898.	1899.
Solicitors .....	...	...	...	1	...	...	.....	.....	.....
Station and shed hands .....	...	345	...	275	...	214	10s., 15s., 20s. per week.	12s., 15s., 20s. per week.	15s. to 25s., and found.
Station overseers .....	...	3	...	2	...	...	.....	.....	.....
Stonebreakers .....	57	9	4	25	13	4	Per yard .....	Per yard .....	Per yard.
Store hands .....	...	3	2	11	12	13	.....	7s. 6d., 15s., 30s. per week.	17s. 6d. to 50s. per week, found.
Surveyors' hands .....	...	9	...	9	...	5	15s. to 20s. per week, found.	20s. to 25s. per week, found.	6s. per day, 15s. to 22s. 6d. per week, and found.
Tailors .....	1	7	...	5	...	7	Piece .....	Piece .....	Piece.
Teacher, music .....	...	...	...	...	...	1	.....	.....	£1 per week, and found.
Tent-makers .....	...	...	4	...	...	...	.....	.....	.....
Tinsmiths .....	3	5	...	5	...	2	1s. per hour .....	1s. per hour and piece.	35s. per week, and found.
Tutors .....	...	4	1	9	...	6	10s. to 17s. 6d. per week.	£30 to £60 per annum.	£30, £40 to £120 per annum.
Upholsterers .....	1	...	...	...	1	...	.....	.....	Piece.
Waiters .....	...	1	...	1	2	3	15s. to 20s. per week, found.	20s. per week, found.	15s. to 22s. 6d. per week, found.
Watchmakers .....	...	...	...	1	...	1	.....	Own account .....	.....
Watchmen .....	1	...	...	2	...	...	.....	10s. per week and found.	.....
Well-sinkers .....	...	...	...	...	...	3	.....	.....	Piece.
Wheelwrights .....	11	4	3	1	1	3	7s. per day, 20s. per week, found.	1s. to 1s. 3d. per hour, piece.	8s. per day, 45s. per week, found.
Wood-turners .....	1	...	...	...	...	...	.....	.....	.....
Wool-classers .....	...	10	...	6	...	6	Per 1,000 .....	Contract .....	60s. to 70s. per week, £1 per 1,000, and £70 clip.
Wool-pressers .....	...	3	...	9	...	8	.....	Contract .....	Contract.
Wool-sorters .....	...	4	...	...	...	5	.....	.....	Piece.
Wool-washers .....	55	69	...	11	...	38	6s. per day .....	6s. to 6s. 6d. per day	6s. to 7s. per day, and 25s. to 40s. per week.
Women to join husbands .....	...	...	...	36	...	22	.....	.....	.....
Children accompanying same .....	...	...	...	70	...	57	.....	.....	.....
Totals .....	8,787	4,931	4,376	3,441	3,819	3,409	.....	.....	.....
	13,718		7,817		7,228				

SUMMARY of Free Rations and Rations advanced to the families of men employed at West Bogan Scrub Works for year ending 30th June, 1899.

Month.	Free Rations.				Bogan Rations.			Total Cost of Rations.
	Families Relieved.		Rations issued at 1s. 10d.	Cost of Rations.	Families Relieved.	Rations issued at 1s. 10d.	Cost of Rations	
	Adults.	Children.						
1898.				£ s. d.			£ s. d.	£ s. d.
July .....	23	101	47½	4 9 0½	56	132	12 7 8	16 16 6½
August .....	16	64	32	3 0 0	43	93	8 14 4½	11 14 4½
September .....	44	163	72½	6 15 11½	54	122½	11 9 8½	18 5 7½
October .....	91	265	117	10 19 4½	35	72½	6 15 11½	17 15 3½
November .....	25	111	48½	4 10 11½	38	78½	7 7 2½	11 18 1½
December .....	32	145	67½	6 6 6½	29	66	6 8 9	12 10 3½
			At 1s. 10d. each.			At 1s. 10d. each.		
1899.								
January .....	18	47	31	2 16 10	20	48	4 8 0	7 4 10
February .....	13	33	22½	2 1 3	16	37	3 7 10	5 9 1
March .....	16	42	29½	2 14 1	13	27½	2 10 5	5 4 6
April .....	19	63	34½	3 3 3	4	8	0 14 8	3 17 11
May .....	15	40	24	2 4 0	4	8	0 14 8	2 18 8
June .....	23	84	48½	4 8 11	30	70	6 8 4	10 17 3
Total .....	395	1,158	575	63 10 2½	342	763	71 2 4½	124 12 6½

The Labour Agent, Armidale, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir, Department of Labour and Industry, Armidale, 4 July, 1899.

I have the honor to report that during the year ending the 30th June, ultimo, there was only one person registered for employment in this office, and he having obtained a situation, was granted a pass by rail to Gunnedah at a cost of 19s., which he refunded. The sum of 30s. was also collected from Miss Emily Alderton on account of head office, and remitted to Treasury.

The rainfall during the year has been much below the average, and consequently work on the principal industries, viz., mining and agriculture, has fallen off to a considerable extent. Recent rains, however, have given a slight impetus to a general demand for labour in all its branches, and should they continue at intervals there is every prospect of increased employment. From what I can learn there are at the present time about 100 men who are not in constant employment in the district, and who are trying to make ends meet by fossicking when other work cannot be obtained. The current rate of wages are about as follows, viz.:—Miners, 8s.; truckers and labourers, 6s. to 7s.; engine-drivers, 9s.; smelters, 9s.; carpenters, 9s. to 10s.; tool-sharpeners, 8s., and boys from 3s. 4d. to 5s. per shift; farm labourers, from 15s. to 20s. per week and found. Although, so far, there is every prospect of a good spring, I would not advise any person at present to come to this district in search of employment.

I have, &c.,  
C. SMITH,  
Agent.

The Labour Agent, Albury, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir, Department of Labour and Industry, Albury, 1 July, 1899.

I have the honor to submit herewith my report for the year ending 30th June, 1899.

No business of any description was transacted at this branch during the period named; and as the facilities which the Department offers to those in needy circumstances and in search of employment have not been availed of, it may be reasonably presumed that there is no surplus labour in this district. The rates of wages as reported from time to time have not materially varied during the past twelve months.

In bringing under review the disastrous effects wrought by the long and protracted drought in the Central and Western Divisions of the Colony, the prosperity of the Albury District, favoured by a good season and average rainfall, forms a pleasing contrast to the distress existing within the drought-stricken area. The immediate effect locally of the dry season experienced in other parts, and the large mortality in stock which ensued, has been the opening up to stockowners of markets for the disposal of their surplus stock at prices not obtained since 1889, and in some cases the profitable letting of their pastures to stockowners of other districts. The wheat farmers also have reason to feel satisfied with the past year's operations. Whilst the labours of the farmers in the dry country were met by loss and failure of crops, the last season's yield in this district exceeded that of previous years, in some instances as much as 30 bushels to the acre being cropped. The success of this season's crop has been assured by the regularity of the rainfall during the past three months.

The boring operations commenced at Black Range for the purpose of testing the existence of a deep lead in the Murray Valley, referred to in a prior report, have been temporarily suspended: but it is understood the work will be resumed shortly, and a thorough test made.

Should the experiment be attended by success, the expenditure of a considerable amount of outside capital in the exploitation of the leads and the opening up of a wide avenue of employment will follow.

The anticipated early consummation of the federation of the Colonies has had a marked effect upon the local land market. Active inquiries are being made for land in the vicinity of Albury, and as a consequence values have become enhanced.

It may not be considered inconsistent with the objects of this report to draw attention to the growing competition of the coloured races in business pursuits throughout the country districts, for in that direction may be discovered an indirect contributing cause to the limited employment to be found in certain occupations.

These men—Hindoos, Syrians, and others—who act as pedlars for the sale of the wares of their employers in the large centres, are to be met with in all parts of the country in their house-to-house canvass, and are to be found established in business in many towns. By their cheap mode of living and immunity from the ordinary social expenses which fall upon the shoulders of the European business man, they are enabled to enter, with undue advantage, into competition with the country shopkeeper to the detriment of the latter and his employees. Competition of a legitimate kind cannot be objected to, but competition of this class is both objectionable and undesirable and requires restricting.

I have, &c.,  
M. J. McMAHON,  
Local Agent.

The Labour Agent, Bega, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir, Department of Labour and Industry, Bega, 30 June, 1899.

In submitting my annual report for the year ending 30th instant, I have the honor to state that no advantage has been taken by the public generally, nor, in particular, by those in search of employment, of this branch during the year. I have not had any applications for employment, and employers prefer, apparently, to apply direct to Sydney for such hands as they may require. The demand for skilled mechanics is not large, there being only two or three fairly extensive industries in the district. As I have pointed out in my monthly reports, the main support of the people is dairying and farming; but

but owing to the continued dry weather that prevailed for the best part of the year, an anxious time has been spent by everyone. A large number of cattle died from the effects of the drought; and in order to try and save others, a lot of expense was incurred in removing them to where it was possible a little feed could be had. It is estimated, by people who are in a position to judge, that at least 500 head have been lost. This part of the Colony would, with fair seasons, be second to none; possessing, as it does, fine agricultural and grazing land, and a mild climate. The distress amongst the farmers would be alleviated to a great extent by one good season. This boon is expected from time to time, and consequently, when a little rain falls, people are more cheerful and hopeful, and their depression for the time being disappears, only to return with the dry weather.

The rainfall for the year registered 18.19 inches.

The following rates of wages obtained in the district during the year:—

Blacksmiths	...	...	...	...	...	...	£2 to £2 15s. per week.
Carpenters	...	...	...	...	...	...	£2 10s. per week.
Coach-painters	...	...	...	...	...	...	£2 10s. per week.
Compositors	...	...	...	...	...	...	£1 10s. to £2 10s. per week.
Shop hands	...	...	...	...	...	...	£3 per week.
Junior shop hands	...	...	...	...	...	...	£2 per week.
Storemen	...	...	...	...	...	...	from 10s. to £1 10s. per week.
Labourers	...	...	...	...	...	...	6s. to 7s. per day.

There are but few unemployed about the town and district, as there are many small jobs offered, such as pulling corn, milking, &c., whereby people out of work earn a few shillings. Some considerable number of young men have lately left the district for other parts to get constant work, as no opening exists here for them.

From the facts detailed, it will be noted that Bega and its neighbourhood has not escaped the general depression which has caused such widespread loss; and it is hoped that during the next twelve months a far more cheerful and healthy change will be experienced.

I have, &c.,  
W. E. O'BRIEN,  
Agent.

The Labour Agent, Bathurst, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Court-house, Bathurst, 30 June, 1899.

I have the honor to forward herewith my report for the year ended 30th June, 1899. The operations for the past year have been very limited, as employers of labour in this district do not take advantage of this branch; but the branch has been found useful, to those seeking employment in other districts, in providing passes.

There appears to be no difficulty by employers of labour in obtaining competent workmen.

The past disastrous drought, of course, has been the means of making business of all descriptions dull; but the recent rainfall, although late, will have the effect of making ploughing possible, and will probably cause a movement in stock which should provide employment for ploughmen and drovers.

From an estimate obtained from the police, it would appear that the probable number of unemployed is fifty.

The current rates of wages are as follows:—

Accountants	...	...	40s. to 60s. per week.	Farm hands	...	...	15s. to 20s. per week and keep.
Bakers	...	...	35s. to 40s. "	Fellmongers	...	...	30s. to 45s. per week.
Barmon	...	...	20s. to 30s. "	Fencere...	...	...	40s. to 45s. "
Blacksmiths	...	...	7s. to 8s. per day.	Gardeners	...	...	15s. to 25s. "
Bootmakers	...	...	35s. to 45s. per week.	Grocers...	...	...	30s. to 60s. "
Brickmakers	...	...	7s. to 8s. per day.	Grooms...	...	...	15s. to 20s. "
Bricklayers	...	...	8s. to 9s. "	Ironworkers	...	...	45s. to 60s. "
Carpenters	...	...	8s. to 9s. "	Labourers	...	...	6s. to 7s. per day.
Clerks	...	...	35s. to 50s. per week.	Miners	...	...	7s. to 8s. "
Coachmakers	...	...	45s. to 55s. "	Navvies	...	...	7s. to 8s. "
Coachmen	...	...	15s. to 20s. "	Ploughmen	...	...	20s. per week and keep.
Cooks	...	...	15s. to 25s. "	Shearers	...	...	20s. per 100.
Drapers	...	...	30s. to 65s. "	Station hands	...	...	15s. to 20s. per week and keep.
Draymen	...	...	20s. to 30s. "	Stonemasons	...	...	10s. to 11s. per day
Drovers	...	...	20s. to 30s. "	Wheelwrights	...	...	40s. to 50s. per week.
Engine-drivers	...	...	50s. to 60s. "				

I have, &c.,  
H. H. CHIPPINDALL,  
Labour Agent

The Labour Agent, Bourke, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Department of Labour and Industry, Bourke, 1 July, 1899.

I have the honor to submit you my report for the past year. During that period—and indeed now for three years—the western portion of the Colony has suffered from a severe drought. The pastoralists were compelled during the last year—and are now—cutting scrub to keep their sheep alive, and this fact accounts for a great deal of labour being in the hands of those who probably, under ordinary circumstances, would be out of employment.

The labour market in the district is at present quiet, though I believe it to be a fact that there is employment for any man for an ordinary day's work on the various stations scrub-cutting. The unemployed in Bourke are not noticeable, and one can hardly help at this time expressing surprise at the agitation of a number of men in Bourke some months ago, seeing the quiet state of things here now. The agitation seems to have collapsed as suddenly as it arose.

With regard to wages, I learn the usual wage of a tradesman to be 10s., and carters and others doing similar work up to £2 per week.

During the year the Bourke meat works closed down, owing to the difficulty in getting stock here, on account of the drought. This means a large decrease in the circulation of money in the town.

The work performed in my office embraces the following—

Registrations	...	...	...	...	...	...	...	54
Passes issued	...	...	...	...	...	...	...	10

Amount of refunds received on account of railway passes, £12 15s. 6d.

I have, &c.,

O. A. S. FITZPATRICK, C.P.S.,  
Agent.

### The Labour Agent, Broken Hill, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Court-house, Broken Hill, 4 July, 1899.

I beg to submit the following as my annual report for the year ending 30th June, 1899:—

Very few names have been registered in my books during the year, and these were men who, I have no doubt, speedily obtained employment, as I never heard of them afterwards.

As I have before reported, good hard-ground miners need never be out of employment—the demand for them now is greater than ever. There is also a demand on the Proprietary Mine for general labourers, able and willing to do the work required of them.

A local weekly newspaper some little time ago published the startling statement that 2,000 men were out of employment in Broken Hill. I immediately instituted inquiries, which resulted in my being perfectly satisfied that there were no grounds for such a sweeping statement. Indeed, when a meeting (called by advertisement) of the unemployed was held in the Central Reserve on the 19th ultimo, only ninety-one names were registered, and of these thirty-six were elderly men and fourteen were youths. As this town has a population of about 27,000 people, I regard this result as satisfactory. In every large town there must, unfortunately, under present conditions, be always persons who cannot, through numerous causes, age and physical infirmity especially, obtain permanent employment, and I cannot help thinking that a number of men here have accustomed themselves to rely on the local municipal council for such casual labour as it may from time to time require. When the revenue is low these men are the first to suffer unless they are prepared to undertake some other kind of labour (in the mines for instance), which may call for a greater tax on their powers and to which they are not, perhaps, accustomed.

During my residence here, extending now into four years, I have never known a case where a good man in any department of industry could not quickly get permanent employment.

There is very little labour employed permanently on the stations in this district. The rainfall makes little or no difference to the labour market. Although benefiting the country to an extent hardly to be described, a good fall of rain rather lessens the amount of casual labour employed, as tank-sinkers, &c., have then to cease work.

I have issued no railway passes during the year, nor have I received any refunds from persons who have obtained Government aid to proceed to their employment here.

I attach hereto a statement showing the rate of wages obtaining here.

I have, &c.,

JAMES WATT,  
Labour Agent, Broken Hill.

#### Rate of wages paid at Broken Hill.

Apprentices—machine shop.....	4s. to 5s. 6d. per day.	Locomotive-drivers .....	10s.	per day.
Blacksmiths—machinery smiths...	10s. 6d. "	" stokers .....	8s. 4d.	"
" smiths (general) ..	8s. 4d. to 10s. "	Masons .....	9s. to 10s. 6d.	"
" strikers, 1st grade..	7s. 6d. "	Planers—machines shop .....	9s. to 10s.	"
" " 2nd grade	6s. "	Riveters, 1st grade .....	9s.	"
Boiler-makers .....	9s. to 10s. 6d. "	" 2nd " .....	8s.	"
" assistants .....	7s. 6d. "	Screwers and sharpers.....	7s. 6d. to 9s.	"
Boys (all) .....	2s. 6d. to 5s. "	Tinsmiths, 1st grade .....	10s.	"
Carpenters, 1st grade .....	10s. 6d. "	" 2nd " .....	9s.	"
" 2nd " .....	9s. 6d. "	Furnace feeders and tappers .....	9s.	"
" 3rd " .....	8s. 4d. "	Charge wheelers .....	8s. 4d.	"
Drillers—machine shop .....	8s. 4d. to 9s. "	Miners .....	9s.	"
Electricians, 1st grade .....	9s. 10d. "	Platmen .....	8s. 4d.	"
" 2nd " .....	9s. "	Bracemen .....	8s. 4d.	"
Engine-drivers, winding .....	10s. "	Truckers.....	7s. 6d.	"
" stationary .....	9s. "	Station employees—		
" winch .....	8s. "	Shepherds .....	15s. per week, with rations.	
Firemen .....	8s. 4d. "	Boundary-riders .....	20s. "	"
Fitters .....	9s. to 10s. 6d. "	Overseers .....	25s. "	"
Lathe hands—machine shop .....	8s. to 10s. 6d. "			

The Labour Agent, Braidwood, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Braidwood, 13 July, 1899.

I have the honor to forward herewith the annual report of this branch for the year ending 30th June last. The operations at this branch during the year have been exceedingly small, only one applicant having been registered.

There are a good many of unemployed in this district, which is perhaps owing to the fact that there are no industries beyond that of mining, and that industry at present is going ahead very fast.

The rates of wages are as follows:—

Miners ... ..	£1 per week.
Labourers... ..	10s. to 15s. per week.
Mechanics ... ..	£1 to 30s. „

I have, &c.,  
W. MARSH,  
Labour Agent.

The Clerk of Petty Sessions, Coonamble, to The Superintendent, Government  
Labour Bureau, Sydney.

Sir,

Court-house, Coonamble, 6 July, 1899.

I have the honor to report that during the year ended 30 June, 1899, at this branch of your Department only two men registered their names. As a means of bringing the unemployed and employers of labour together the office is useless; in fact, for that purpose, there is no necessity for an agency here—both classes ignore it—my work in connection with the office for the year being, with the exception of the registration of the two men before mentioned, merely to furnish month after month nil returns, and report no change in the labour market. Apparently there are few if any genuine unemployed in the district. There has been no demand for any class of labour. The drought caused great losses in stock, and although during the last few weeks there have been two or three falls of rain there has not been sufficient to ensure a supply of feed for stock during the winter, and unless there is further rain shortly the present growth will quickly disappear. The rate of wages current is as shown in last annual report—carpenters and builders, 8s. to 10s. per day; coachbuilders, wheelwrights, and blacksmiths, from 1s. to 1s. 3d. per hour; saddlers from £2 to £2 10s. per week; bakers, £2 per week; and labourers and station hands, no fixed rate. There have been no refunds received from persons who were assisted with railway passes during the year. There has been no new industry opened up. The district is chiefly pastoral, although I believe in parts a good deal of agriculture was attempted; the drought however, spoilt all prospects in that direction.

I have, &c.,  
C. DILLON, C.P.S.,  
Coonamble.

The Labour Agent, Cowra, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Court-house, Cowra, 18 July, 1899.

I have the honor to inform you that for the year ending 30th June last, no business has been done at this branch either in registration by applicants for work, or inquiries by employers.

For the past three years, owing to the continued drought, the labouring classes in this district have been unable to obtain permanent employment, only work of an intermittent kind, principally clearing, fencing, and grubbing land for agricultural purposes. The subsequent failures to a great extent of the crops prevented in a great measure engagement in harvesting. Last season in particular the majority of the crops failed through want of rain at the most critical period, in September, when the ears required the moisture to fill them. Notwithstanding these drawbacks the farmers and graziers have not had so severe a drought as their more western neighbours.

The present season gives every indication of being the best experienced for some years, the crops are in a forward and healthy condition, grass and water are plentiful, and good prices are ruling for stock and wool, and as a natural sequence permanent work will be obtained in farming and grazing pursuits.

The introduction of dredging for gold in our rivers and creeks, on the New Zealand methods, promises to give employment to a large number of men on the Lachlan, where leases for that purpose have already been applied for.

The following scale of wages is generally followed in the Cowra district:—

Farm labourers ... ..	15s. to 20s. per week.
Station hands ... ..	12s. „ 25s. „
Cooks ... ..	10s. „ 20s. „
Shearers ... ..	18s. „ 20s. per 100 sheep.
Rouseabouts ... ..	15s. „ 20s. per week.
Miners ... ..	45s. „ 50s. „
Wheelwrights ... ..	50s. „ 55s. „
Blacksmiths ... ..	50s. „ £3 „
Carpenters ... ..	50s. „ £3 „
Drapers ... ..	30s. „ £4 „
Grocers ... ..	25s. „ £3 „

I have, &c.,  
JAMES MILLER,  
Agent.

The

The Acting Labour Agent, Cobar, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Court-house, Cobar, 29 June, 1899.

I do myself the honor to submit the annual report of this office. The past year has been a very slack one for labour, owing to the disastrous drought the district has been suffering from—the most severe one that has ever been experienced; consequently there has not been that demand for labour that there otherwise would have been. There is now every prospect of a break-up of the drought, and if we are fortunate enough to have a good rainfall during the next two or three months it may be reasonably expected that the number of men employed during the current twelve months will double that of the past year. There has been, comparatively speaking, little mining doing during the past year, and a good rainfall will cause a considerable stir in mining operations, and, consequently, an increased number of hands will be employed.

During the past year there have been 15 men registered for employment, viz.:—Engineer, 1; clerk, 1; miners, 7; wool-classer, 1; wool-scourer, 1; plumber, 1; prospector, 1; labourer, 1; tailor, 1; and ten railway passes have been issued.

The current rate of wages remain about the same, there being little or no alteration, and may be quoted as follows:—Miners, 8s. 4d.; engine-drivers, 8s. to 10s.; carpenters, 7s. to 10s.; blacksmiths, 8s. to 10s.; smelters and general mine labourers, 7s.; firemen, 7s.; general station hands, 20s. per week and found; married couples, £65 to £75 per annum.

During the past year there have been about 1,000 men employed on the field, and with anything like a fair season I think this number will be increased to a very great extent during the ensuing twelve months.

I have, &c.,

WALTERUS BROWN, P.M.,

Acting Bureau Agent.

The Labour Agent, Cooma, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Department of Labour and Industry, Cooma, 4 July, 1899.

I have the honor to submit my report for the year ending 30th June, 1899:—

1. Registrations of unemployed, thirty-four.
2. Passes issued total twenty-eight.
3. Refunds of railway fares direct to this office, £17 10s. 9d.

4. Labour market.—No demand for labour, as the local supply is more than sufficient. Although the unemployed are not much in evidence, work is scarce generally, and there is a considerable amount of poverty. The gold-fields of Cooma and Cowra Creek give employment to about 150 men, and there are others seeking alluvial gold. The principal industry, however, is grazing, which does not require so many men. Agriculture is precarious on account of the Monaro climate. There are no factories—properly so called—in this district, but the trades usually found in country towns are all represented.

5. Current rate of wages:—

Gold and copper miners	... ..	£2 2s. a week.
Contract labourers	... ..	£1 10s. to £2 "
Ordinary labourers	... ..	£1 10s. "
Blacksmiths	... ..	£2 "
Carpenters	... ..	£2 2s. "
Bush labourers, boundary riders, &c.	... ..	From 12s. 6d. to £1 a week, with rations.

6. Remarks.—The past twelve months shows an improvement on the year 1897-98, and present appearances point to further improvement; the former extremely dry period has been followed by beneficial rains and unusually mild weather, giving promise of a good spring, and an opportunity to farmers to carry out all necessary ploughing.

The area under cultivation will greatly exceed last year's operations.

I have, &c.,

EDWARD GOMM,

Agent.

The Labour Agent, Cootamundra, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Department of Labour and Industry, Cootamundra, 4 July, 1899.

I have the honor to inform you that for the year ending 30th June, 1899, eleven persons registered at this branch. In the majority of these cases railway passes were issued to enable the parties to get to the employment that awaited them. As the branch is not used to a very great extent, and from my own observation, I have come to the conclusion that on the whole this district has during the last twelve months been comparatively free from the unemployed. This is owing in a great degree, I think, to the fact that this being almost purely an agricultural district, and the supply of labour being met by the farmers and their families, that it has become known that the supply of labour is equal to the demand. The prosperity of the Cootamundra District, I think I may safely say, depends on the success of the annual harvests; and as, prior to the year 1890, and for some years previous to that date, there was a generous rainfall, it was proved that the soil in the district was capable of producing anything. In the winter months of 1898 there was a fair rainfall, which raised the hopes of the farming community; but, unfortunately, the rain held off when most needed to crown the crops. I refer to the months of September and October, 1898. If during the latter month good rain had fallen, it would have been a record crop, as a much larger area was under crop than formerly. However, bearing in view former successes, the farmers have faced their disappointments, and are now completing the sowing of their crops. Everything just now points to a good season. Last month was a rainy one, which softened the soil and helped ploughing, and assisted to germinate the seed already sown. I sincerely trust that the hopes of the farmers may be fulfilled. There has been little other work done in the district, except that the prices for stock

stock have improved, and several buyers from Victoria have been in the district and bought largely. There are numbers of men employed on the new deviation works some 10 or 12 miles from here; but these men have chiefly come from Sydney, and, as I understand a branch of the Labour Bureau has been opened at Murrumburrah, probably some of the labour has come from that town, it being near the scene of operations. The present rates of wages are as follow:—

Clerks, drapers, and grocers	... ..	£1 10s. to £3 10s. weekly.
Compositors	... ..	10s. to £2 10s. "
Butchers	... ..	£2 "
Drovers	... ..	£1 10s. and keep "
Station hands	... ..	15s. " "
Farm labourers	... ..	15s. " "
Bricklayers and carpenters	... ..	8s. daily.
Masons	... ..	9s. "
Blacksmiths	... ..	7s. "
Labourers, painters, and carters	... ..	6s. "

I have, &c.,  
G. ADDISON,  
Labour Agent.

The Labour Agent, Dubbo, to The Superintendent, Government Labour Bureau, Sydney.

Sir, Labour Bureau, Dubbo, 5 July, 1899.

I have the honor to report as follows on transactions of this Branch for the year ending 30th June, 1899:—

*Registration of Unemployed.*—Only four men registered their names at this office during the past twelve months, and they only did so with a view of obtaining railway passes.

*Passes Issued.*—Only two passes were issued.

*Refunds.*—13s. 3d.

*State of Labour Market.*—No demand for labour here; local supply sufficient. Police state that there are a good number of unemployed in the town and district.

*Employers of Labour.*—No advantage whatever has been taken of this branch.

*Rates of Wages.*—Farm hands (good), 15s. to £1, with rations; day labourers, 5s. to 6s. per diem.

*Town Industries.*—Flour-milling, coach-building, saw-milling, brewing, wool-washing and boiling-down establishments, wages average 8s. per diem.

*Remarks.*—Scrub-cutting, ringbarking, timber-getting are done by contract; wage earned varies a good deal.

The Municipal Council employ eight hands; wages average 8s. per diem. As far as I know, and from inquiries made, late rains have made no difference in the labour market.

I know of no person obtaining employment through the agency of this office since the establishment of this branch.

I have, &c.,  
R. T. MACNEVIN,  
Agent.

The Labour Agent, Forbes, to The Superintendent, Government Labour Bureau, Sydney.

Sir, Court-house, Forbes, 30 June, 1899.

I have the honor to report that during the year ending to-day there has been one registration (a swagman) of an applicant for work, and no other business appears to have been transacted at this agency.

The rate of wages paid in this district is the same now as has prevailed for some years past.

The district has been suffering from drought for some considerable time, and though there has been a small fall of rain within the last month the labour market has not been affected in any way.

The supply of labour available locally seems to be quite sufficient for all requirements.

Employers never make use of the agency as a medium for obtaining employees.

I have, &c.,  
W. BUTLER LUSK,  
District Agent.

The Labour Agent, Grafton, to The Superintendent, Government Labour Bureau, Sydney.

Sir, Labour Bureau, Grafton, 1 July, 1899.

I have the honor to submit the annual report as to the operations of the Grafton Branch of the Government Labour Bureau, and in so doing would state that during the period in question, viz., from 1st July, 1898, to 30th June, 1899, the services of this branch have not been availed of either by employers of labour or persons seeking employment, with the exception of one man registering; and it is only natural to presume that there must be a fair amount of unemployed in such a large district as Grafton. It may probably be accounted for from the fact that this district—unlike so many parts of the Colony last year—has enjoyed a most beautiful season, one of the best known for many years; consequently agricultural and dairy farms have been receiving splendid returns for their various produce, especially in the dairying industry, which appears to be making very great progress in these parts, and consequently the Fresh Food and Ice Company's branch here has been kept fully employed during the year. The other industries of the district are, of course, the Meat-preserving Works at Ramornie, and mining, and both of these are at present not in full swing, from causes which I cannot at present definitely ascertain. During the year many applications for suspension of the labour conditions on various mines in the district have been made, and in most cases granted, notably that of the Beacon G.M. Co. (Limited) at Upper Bucca Bucca, and other applications are now pending before the resident Mining Warden. Some experienced miners prognosticate a great future for the mining industry in these parts, especially from hydraulic mining, and several special-lease applications for gold-dredging in the Clarence River are now before the Mines Department.

In

In regard to wages, unskilled labour is paid for at the rate of 18s. to 25s. per week and cooked rations. Tallow-makers, meat-extract makers, and firemen employed at the meat-works at Ramornie average from 35s. to 45s. per week and a ration. Butchers make about 60s., but receive no ration. The men working in the tinsmith portion of the works average from 40s. to 45s. per week.

The saw-mills of the district are not at present as busy as would be expected. Circular sawyers get 8s. per day; mechanics, 7s.; launch drivers, 8s. per day; draymen and engine-drivers, 7s. per day; and ordinary labour is in all trades paid for at the rate of 6s. per day.

The rainfall during the year has been most general, and the recent heavy rains has tended to keep off the frosts and thereby save the sugar-cane and other crops from injury. So far the winter has not affected the maize or cane, and everything tends at present to another very prosperous season for this very large and most important district. Stock of all description are in splendid condition for the winter.

I have, &c.,

JAMES C. THORNTON,

Agent.

The Labour Agent, Glen Innes, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Department of Labour and Industry, Glen Innes, 4 July, 1899.

I have the honor to forward herewith my annual report for the year ending 30th June, 1899, attached hereto.

I have, &c.,

F. BURNE.

ANNUAL Report by the Labour Agent at Glen Innes, for the year ending 30th June, 1899.

Number of men registered during the year ending 30th June, 1899, nil.

„ obtaining passes during the year ending 30th June, 1899, nil.

„ „ employment during the year ending 30th June, 1899, nil.

„ receiving miners' rights during the year ending 30th June, 1899, nil.

„ unemployed in the district during the year ending 30th June, 1899.—There were from 20 to 25 unemployed during the early part of this year, 1899, which mostly consisted of travellers to and from the district. All those, however, who remained in the district found work, mining, which industry has revived, in consequence of the rise in tin; also, any of the permanent residents, who were temporarily out of work, got employment on the farms, as the rain enabled the farmers to resume work which the drought had somewhat impeded.

The mild weather and seasonable showers which have prevailed throughout the autumn up to within the last fortnight has given a sufficient growth of grass as to ensure a fair supply for the winter.

The average rainfall for the year has been 1.96 per month.

New industries started in the district during the year ending 30th June, 1899, nil.

INDUSTRIES IN FULL WORK.

40 dairy farms.	1 gas works.
3 saw-mills.	3 brick works.
2 tanneries.	2 flour mills.
2 wool scours.	2 saddlery establishments.
1 iron foundry.	1 chaff-cutting establishment.

RATES of Wages prevailing in the District for the year ending 30th June, 1899.

Carpenters ... ..	8s. per day.
Labourers (ordinary) ... ..	6s. „
„ (farm) ... ..	15s. per week.
Butchers ... ..	40s. „
Station-hands ... ..	12s. 6d. per week, and found.
Tinsmiths ... ..	7s. to 8s. per day.
Carters ... ..	30s. per week.
Miners ... ..	7s. 6d. per day.
Blacksmiths ... ..	8s. „
Painters ... ..	8s. „
Drapers ... ..	50s. per week.
Bricklayers ... ..	9s. per day.
Stonemasons ... ..	9s. „

There have been no inquiries by employers of labour during the year ending 30th June, 1899.

F. BURNE,

Labour Agent.

The Labour Agent, Goulburn, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Department of Labour and Industry, Goulburn Branch, 1 July, 1899.

In furnishing my annual report I have the honor to state that there has been no alteration in the rates of wages paid to labourers, mechanics, and others during the past twelve months. Owing to the long-continued drought there have been a number of unemployed in and around this city. A number of men have proceeded from here to the railway deviation works at Murrumburrah. The number of registrations at this branch during the past year is fifty-six, and the number of passes issued during the same period is nineteen. There have been no applications to me on the part of employers. The recent rain has been the means of providing work for a few gardeners, as well as allowing ploughing operations to proceed.

I have, &c.,

C. J. B. HELM,

Labour Agent.

The



The Labour Agent, Hillston, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Hillston, 4 July, 1899.

In submitting my annual report for the year ended 30th June, 1899, I have the honor to state that the assistance of this Branch was not sought in any way either by employers or would-be employees, and no transactions of any kind took place. The most important matter in the district has been the protracted drought, resulting in an almost entire absence of feed and water, necessitating sheep and other stock being sent away in large numbers to more favoured districts. On those stations where the water lasted but feed gave out, large sums of money have been spent in getting chaff to keep stock alive, and also in cutting scrub; this, although of course entailing heavy expense on the stations, has had the effect of absorbing a great amount of labour which otherwise, owing to the impossibility of being employed on their own smaller holdings, would have found no outlet. Notwithstanding, however, all efforts, the mortality amongst stock of every kind has been enormous, and there will be practically no lambing in many places.

The industries are mainly pastoral and agricultural, wages ranging from 10s. to 20s. per week, with rations, and the supply is equal to the demand, while owing to the causes above stated, it may fairly be said that the district is free of unemployed—that is, of men who would work if they could get it to do. There are a few of the usual class of persons who prefer any kind of life to work of any sort, but these are not worth taking into account.

Taking the district as a whole, I am of opinion that good men will always obtain good wages, and as the seasons improve, of which there is now every indication, small settlements in all parts will receive a great impetus, and immediately any definite decision is announced as to the railway extension here, there will be a large demand for land under any of the present forms of tenure, with the result that Hillston will in a very short time become the centre of one of the most thriving and populous districts in New South Wales.

I have, &c.,  
W. LION VOLCKMAN,  
Labour Agent.

The Acting Clerk of Petty Sessions, Hay, to The Superintendent, Government  
Labour Bureau, Sydney.

Sir,

Court-house, Hay, 6 July, 1899.

During the year ended 30th June last, no applications from persons in want of employment have been registered at this office.

The public have been made aware that the Branch exists, but both masters and men appear to prefer dealing directly with each other.

The collections of refunds for railway fares are nil.

The disastrous drought, extending almost continuously over the last four years, has greatly reduced the demands for labour in this, practically, pastoral district, and the enforced economy on the part of the employers has been felt by employees, the general labouring population around, and the business people of this town.

About 3 inches of rain have fallen during the past four weeks, and this has had the effect of brightening the general outlook.

Following are the ruling rates of wages in the principal branches of employment:—

Blacksmiths	...	...	...	...	...	...	...	8s. per day.
„ assistants	...	...	...	...	...	...	...	6s. „
Bricklayers	...	...	...	...	...	...	...	10s. „
Carpenters	...	...	...	...	...	...	...	10s. „
Cooks	...	...	...	...	...	...	20s. to 25s. per week, with rations.	
Gardeners	...	...	...	...	...	...	...	20s. „
Horse-drivers	...	...	...	...	...	...	15s. to 20s. „	
Labourers, general	...	...	...	...	...	...	15s. „ 20s. „	
Wheelwrights	...	...	...	...	...	...	8s. „ 10s. per day.	

I have, &c.,  
S. H. HEAD,  
Acting C.P.S.

The Labour Agent, Junee, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Department of Labour and Industry, Junee, 15 July, 1899.

I have the honor to submit my report for the year ending 30th June last, of the work done at this branch. Only three persons during that period have registered themselves for employment, two of whom have since obtained employment, but not through this office.

No passes have been granted, and no refunds have been received.

Since my last report for the year, the principal industries have been even slacker than before, owing to the protracted drought; all businesses having had to discharge some of their hands, there not being sufficient work for them.

There are no genuine unemployed in this district at present, and no demand for labour.

The

The rates of wages have continued about the same throughout the year, viz. :—

Bakers ... ..	average	£2 10s. per week.
Blacksmiths ... ..	"	£3 "
Bootmakers ... ..	"	£2 "
Bricklayers ... ..	"	9s. per day.
Butchers... ..	"	25s. per week.
Carpenters ... ..	"	20s. to 30s. per week.
Carters ... ..	"	25s. to 35s. "
Clerks ... ..	"	50s. "
Cooks ... ..	"	15s. to 20s. " board and lodging.
Drapers ... ..	"	60s. "
Farm hands ... ..	"	20s. to 30s. " and tucker.
Gardeners ... ..	"	15s. " board and lodging.
Generally usefuls ... ..	"	15s. " "
Grooms ... ..	"	20s. " "
Grocers ... ..	"	60s. "
General labourers ... ..	"	15s. to 20s. "
Masons (stone) ... ..	"	60s. "
Moulders ... ..	"	60s. "
Miners (gold) ... ..	"	40s. to 45s. " and 7s. per shift.
Plasterers ... ..	"	10s. per day of eight hours.
Plumbers .. ..	"	9s. per day.
Printers ... ..	"	20s. to 25s. per week.
Ploughmen ... ..	"	20s. per week and board.
" (strikers' out) ... ..	"	15s. to 25s. per week and board.
Saddlers, &c. ... ..	"	8s. 6d. per day.
Steam chaff-cutting—labourers ... ..	"	5s. per day, and rations.
Tinsmiths ... ..	"	8s. per day.
Wheelwrights ... ..	"	30s. to 60s. per week, or 8s. per day.
Wood-cutters ... ..	"	20s. per week, and board and lodging.
Hotel porters ... ..	"	15s. " "
Soapmakers ... ..	"	60s. per week.
" labourers ... ..	"	10s. to 20s. per week.

The principal industries in the district are wool and wheat growing, iron foundry, machinists (agricultural), mining, soap-works, coach-building, builders, road contractors, tank-sinkers, tinsmiths, and plumbers, &c.

I have, &c.,

W. THEO. GARLAND,  
Labour Agent.

#### The Acting Clerk of Petty Sessions, Jerilderie, to The Superintendent, Government Labour Bureau, Sydney.

Sir, Department of Labour and Industry, Jerilderie Branch, 1 July, 1899.

I have the honor to forward you my annual report in connection with the Government Labour Bureau in this district during the year ending 30th June last. No applications for employment, or from persons requiring employees were received at this office.

The current rate of wages for the class of labour usually required in this district, namely, station and farm hands, is from 15s. to 20s. per week, with rations.

It is only at shearing and harvest time that extra labour is required, which is fully supplied locally and from Victoria.

Graziers and farmers are compelled, owing to the long drought and depressed times, to employ as little labour as possible.

I have, &c.,

JOHN CURRY,  
Acting C.P.S.

#### The Labour Agent, Kempsey, to The Superintendent, Government Labour Bureau, Sydney.

Sir, Kempsey, 30 June, 1899.

I have the honor to inform you that this branch's operations for the past year have amounted to nil, there having been no applications for labour by employers, or for work by employees—no applications for registration, nor for passes, or assistance of any kind whatsoever; indeed the general public seem to be unaware of the facilities offered by this branch of the Labour Bureau for obtaining any necessary labour, and as far as I can ascertain send to Sydney to engage what skilled labour they require. The supply of unskilled labour is locally ample to meet all requirements in the present and future.

Practically there are no unemployed in this district. An occasional swagman may be seen passing through; but, as a rule, they are of the class which do not desire work. The contractor for the Kempsey bridge informs me that he has had very few applications for work by local unemployed, and as his workmen remain with him for all his contracts, he engages very little outside labour, but has no difficulty in obtaining what he wants. The manager of the principal dairy factory, Mr. F. F. East, informs me that matters remain much as he reported last year, and that there is no difficulty in obtaining the labour his company requires. He reports, however, that there is a demand for men skilled in the dairy business who can milk and attend to stock, especially in the spring, and that this is the case he thinks on all the northern rivers, and that men of this character would find suitable employment without difficulty.

Harvesting

Harvesting operations this year have been successful, the work, however, being largely performed by the farmers themselves with the assistance of their neighbours, and perhaps a casual labourer. The year just passed has been a very good one for this district, it having been exceptionally fortunate with regard to the rainfall. The crops have been good and the staple products have maintained remunerative prices. I can, however, hear of no additional demand for labour.

The rates of wages in this district do not vary, and are approximately as follows:—

Bullock-drivers	...	...	...	...	26s. to 30s. per week, and rations.
Bricklayers	...	...	...	...	8s. to 10s. per diem.
Blacksmiths	...	...	...	...	6s. to 8s. „
Carpenters	...	...	...	...	6s. to 12s. „
Carters	...	...	...	...	9s. to 10s. „
Farm labourers	...	...	...	...	10s. to 20s. per week, and rations.
Labourers	...	...	...	...	5s. to 6s. per diem.
Mill-hands	...	...	...	...	5s. to 7s. „
Painters	...	...	...	...	7s. to 10s. „
Plasterers	...	...	...	...	10s. to 12s. „
Station-hands	...	...	...	...	10s. to 20s. per week, and rations.
Wheelwrights	...	...	...	...	6s. to 10s. per diem.

I have, &c.,  
HERBERT PHILLIPS,  
Government Labour Agent.

The Labour Agent, Lithgow, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Court-house, Lithgow, 1 July, 1899.

I have the honor to forward herewith the annual report of this branch for the year ending the 30th June last. The operations at this branch have been very small, only one applicant having been registered, who obtained employment and received a pass, and who subsequently refunded amount of same to your office.

There are five local collieries idle at present, employing, before they shut down, about 210 men, who are on strike for a uniform hewing rate of 1s. 10d. per ton. Most of the mines have erected weighing-machines under the Coal Mines Regulation Act, and since this has been done the owners offered 1s. 6d. per ton hewing rate for all coal filled with a fork, and their contention is this is equal to 1s. 8d. per ton formerly paid for screen coal. The miners say they cannot make sufficient to keep themselves on this; in fact, they could not do so on the former rate of 1s. 8d. per ton, and as both sides seem determined to fight the struggle is likely to be a prolonged one. The miners are receiving outside assistance from the labour societies, and are supported locally as well. There are rumours of two of the mines starting with non-union labour. The ironworks are constantly kept going, giving employment to about 200 men. The proprietor, who is now in England, it is said, for the purpose of getting more machinery for the extension of the galvanising plant, and for steel works. The smelting works employ about 110 men, and their work is constant. The woollen mills at Coerwell employ, on an average, from 20 to 30 men, besides about 20 women, boys, and girls. There are two breweries employing about 25 men. A syndicate have, through their representative, taken up a special lease near Cullen Bullen for the purpose of obtaining limestone, the intention being to forward the limestone to Lithgow and manufacture it into cement; this would mean the employment of a good deal of labour, as the whole of the buildings and machinery necessary would be required to be erected. The late drought has completely broken up within the past two months. The rain will not be of any use, as far as grazing is concerned, as the climate here is too severe at this time of the year for herbage to grow, but it will enable farmers to plough and grow winter feed to keep their stock alive. The holdings in this district are only small, and are worked in most instances by the owners and their families, outside labour not being availed of. I omitted to mention the colliery-owners in this district obtained the contract to supply 125,000 tons of coal for the railways this year, which is an increase of 50 per cent. on last year's contract. No refunds of railway fares have been received by me during the year. The unemployed number about 275.

The rates of wages ruling in this district are as follows:—Smelters, from 7s. 6d. to 9s. 6d. per day; labourers, from 6s. 6d. to 7s. 6d. per day; bricklayers, 9s. per day; carpenters, 8s. per day; blacksmiths, 8s. per day; engineers and engine-drivers average 9s. per day; weavers earn from 22s. 6d. to 35s. a week at piece-work.

I have, &c.,

EDWARD M. COHEN,  
Labour Agent.

The Labour Agent, Lismore, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Department of Labour and Industry, Lismore, 1 July, 1899.

I have the honor to submit my annual report for the year ended 30th June last, which must necessarily be brief, for two reasons, viz., because of the small amount of business transacted and the limited time I have for compiling matters of this kind. The Quarter Sessions and District Court are about being held, and being the close of the quarter, returns and office business keep both officers here at work from 8 a.m. to 9 and 10 p.m. regularly.

This branch of the Labour Bureau is not being used in any way by those seeking employment or those requiring labour, not one application having been received during the year, its sole use apparently being to make monthly reports as to the state of the district, so far as can be ascertained from inquiries made. As on former occasions, I communicated with several persons in the district with a view of obtaining accurate information concerning the various industries, but up to the present time they have not replied, consequently my statements will be of a general nature. The rainfall for the year ended

30th June at Lismore was 47 inches, which was somewhat below the average for this district; nevertheless, the evidences of drought have not in any way been seen all through the Richmond. There appears nothing but "peace, progress, and abundance" stamped on every farm and industry. There is still a large quantity of cane growing, and the incoming season is expected to be a good one.

The dairying industry is forging ahead with remarkable vigour, farmers coming into the district from other places endeavouring to obtain suitable farms to settle on. Property is changing hands every day, at good figures—as much as £20 per acre having been refused during the past month for land close to Lismore, £12 per acre being quite a common price for conditional purchase land in good localities. There is a large area open for homestead selection in the district, but being some distance from the population centres and creameries, besides being somewhat difficult to get at because of the bad roads in the hilly country; but before long there is no doubt but this difficulty will be overcome, and the whole of the Crown lands will be in occupation. The Government Experimental Farm at Wollongbar at the present time, in the coldest weather, is a sight worth looking at, and as the incoming home-seeker travels from Ballina to Lismore, the farm with all its parts in perfect order must certainly go a long way towards deciding any doubts as to the capacity of the soil to produce paying crops.

The timber trade is also booming, all the mills being kept at work early and late, and each of the proprietors say they have orders for weeks in advance; and in the connection evidence is given of the local consumption of timber by the many new buildings going up in and around the city.

The business places of Lismore are steadily increasing, and the principal streets fast filling up with show windows and new signs of progress.

Coming to the labour conditions of the district, it will be seen from the subjoined reports received from Messrs. H. V. Jackson, manager, Experimental Farm; J. McBryde, manager, Rous Mill; and J. Gibson, manager, N.S.W. Creamery Butter Company (Limited), that there are not many unemployed in the district, but rather a demand for those who thoroughly understand farm work and dairying, but generally the supply is equal to the demand. The Resident Engineer, Mr. Fitzneads, informs me that he keeps an average of about thirty men per month employed on road work, at 7s. per day, and that he knows of about sixty men out of employment in the district—these are men who only undertake ordinary labour, and have no special knowledge of farming.

The average earnings per man in the cane-cutting gangs is, I am informed, the same as last year's reports, viz., 7s. 2d. per day, ranging from 6s. to 11s. per day; ditto for bullock team and driver, 14s. 1d., ranging from 10s. to 22s. 6d. per day; ordinary labourers working for contractors, 5s. to 7s. per day, and found; ditto on farms, from 15s. to 22s. 6d. per week, and found; old men and youths get from 10s. to 15s. per week, and found.

The following is the schedule of prices paid for skilled labour, viz. :—

Engineers, fitters, and engine-drivers ... ..	27s. 6d. to 60s. per week, and found.
Firemen, &c. ... ..	27s. 6d. to 35s. " "
Carpenters ... ..	9s. per day.
Masons ... ..	8s. "
Bricklayers and plasterers ... ..	8s. "
Boiler-makers and fitters ... ..	9s. "
Painters ... ..	6s. 6d. "
Plumbers ... ..	7s. 6d. "
Moulders ... ..	9s. "

I also attach a return kindly supplied by the police authorities, showing the population within the Police Patrol District of Lismore which extends only a radius of miles from the town, together with the agricultural and pastoral returns for the same area, and also a list of the mills, manufactories, and works up to the present date, which will give a good idea of the business being carried on.

I have, &c.,

ANDREW T. COCHRANE,  
C.P.S. and Labour Agent.

Andrew T. Cochrane, Esq., Clerk of Petty Sessions, Lismore,—

Sir,

Your letter of the 16th June, 1899, has been sent on to me here. From applications that have been made to me for employment, or for assistance in that direction, I should not consider there was a scarcity of ordinary labouring farm hands. There is only a scarcity of ordinary labouring farm hands. There is only a scarcity or difficulty in obtaining the services of a good all-round genuine gardener and farm hand of real sound experience. I have only just executed an order for a gentleman in your district for that class of man. The rate of wages paid for ordinary unskilled dairy servants, i.e., rouseabouts and milking men, varies from 8s. to 15s. or 16s., and their keep. The wage depends on the ability of the man and the nature and amount of work, also the class of dairy-farm where he may be employed.

I have, &c.,

H. V. JACKSON,  
Manager, Experimental Farm, Wollongbar.

Andrew T. Cochrane, Esq., Clerk of Petty Sessions, Lismore,—

Dear Sir,

I am in receipt of your letter of the 16th inst., and in reply beg to state that the average number of men employed, and the rate of wages paid for last year, is about the same as given in my letter to you of the 22nd June, 1898. There have been but few men looking for work this year, but I think the supply is equal to the demand.

I am, &c.,

JNO. McBRYDE,  
Manager.

A. T. Cochrane, Esq., Court-house,—

Dear Sir,

Yours of June to hand. Amount of hands employed in this district by this Company is an average of 50 men. Average pay, £2 per man a week. Supply is equal to demand. There is not any unemployed of farming hands and milk men, but a demand for good hands. General state of the dairying industry is very encouraging, and come to stay.

Yours, &c.,

J. GIBSON,  
Lismore

## Lismore Police Patrol District, 1899.

Population for year 1899.—Europeans, 7,680; Chinese, 19; Aliens (Syrians), 33; Aliens (Hindoos), 30—total, 7,762.  
Population of Lismore, 1899.—Municipal District of Lismore, 3,982; outside Municipality, 3,780; Patrol Police District of Lismore—total, 7,762.

Agricultural and Pastoral Returns, 1898-99, Lismore Patrol District.—No. of acres of land enclosed, 91,632; No. of acres of land unenclosed, 35,090; No. of acres under crop, 8,130; No. of horses, 3,717; No. of cows, 11,586; No. of ordinary cattle, 10,042; No. of pigs, 6,254.

Police Station, Lismore, 22 January, 1899.

Number of Mills, Manufactories, and Works in the Lismore Patrol District, during the year ending 31 December, 1898:—2 butter factories, 2 creameries, 1 tannery, 1 furniture warehouse, 1 ice-making, 1 bacon-curing, 1 confectionery, 1 joinery works, 1 gas works, 2 aerated waters, 2 printing offices, 1 iron foundry, 3 saw-mills, 4 tailoring establishments, 2 saddle and harness makers, 2 coach-building, 2 tinsmiths, 2 agricultural implements, 2 boots and shoes, 3 dressmaking, 1 stone-crusher, 1 water works—total, 58.

The Labour Agent, Mudgee, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Mudgee, 3 July, 1899.

In forwarding the annual report for the year ended 30th June last, I have the honor to state that during the past year no registrations were effected, no refunds received, and no railway passes issued. As previously reported, this office is not used as a means of bringing employer and employee together; I cannot hear of any demand for labour, and there seems to be very few unemployed about this district. During the past twelve months the rainfall has been about the average, but a short spell of dry weather necessitated farming being delayed a little; on the whole, the farmers and graziers had very little to complain of; vast numbers of sheep and cattle have been depastured in this district from the drought-stricken centres. The principal industries are mining, grazing, and farming. With regard to mining, the usual number of miners are employed, and it is anticipated that with the special leases for dredging for gold being granted, an impetus will be given to mining. Already many leases have been applied for, the idea being that the rivers which flow through auriferous regions have, for centuries past, deposited gold-wash in the bed of the river. There are petitions being prepared now to endeavour to prevent the leases being issued, on the grounds that it will interfere with the small miner; that the pollution of the water by the decayed matter being continually churned up will prove a source of danger to those dependent upon the rivers for a water supply, &c.; but, on the other hand, if successful, a vast amount of wealth should be added to the Colony, though I do not anticipate that the dredging will give much employment to local men. According to local reports mining at Yamble and Two-mile Flat is very dull. A number of men are at work there, and the best results do not appear to give anything more than "tucker." At Cudgebong nothing has been done lately in mining matters. There are still a considerable number of men at work about there, but gold seems very hard to get. The battery at Cunningham's lease is still at work, but the results are said to be rather poor. There is said to be a lot of dissatisfaction on the Hargraves field, at the effort made by one company to reduce wages. It is claimed that £2 2s. should be the minimum wage, and £2 is now being paid; consequently, not a single Hargraves man is working on the mine in question. The average wage of miners is 7s. 6d. per diem for six working days per week.

As regards grazing, fat stock are bringing high prices, and Mudgee is the centre of a large grazing district. The local butchers supply meat even as far distant as Cobar while the drought continues. This district has the reputation for possessing valuable stock, and at the annual show, held in May last, some of the sheep and cattle were fit to compete in any part of the Colony. Taken on the whole, the district for grazing purposes has not suffered to any extent.

As regards the farming industry, ploughing has been delayed a little on account of rain holding off; but since my last monthly report good steady rain has fallen, and, notwithstanding the low price of wheat—at present 2s. 6d. per bushel—a much larger area is being cultivated, and already I hear of hares and marsupials damaging the growing crops; and yet the Pastures Board are only offering 1d. for the scalps of these destructive animals.

In conclusion, the outlook for the coming year is good. Many people would select land, but there is a great scarcity of agricultural land available for selection.

On the stations, boundary-riders are paid from £60 to £65, without rations; single men, £40, with rations; married couples, £52 to £60, with board; and farm labourers 17s. 6d. per week, with board and lodging.

It is anticipated that federation accomplished will open the markets of all the colonies to our farmers, who are very favourably situated as regards rainfall and climate.

I have, &c.,

D. G. M'DOUGALL,  
C.P.S., &c.

The Labour Agent, Molong, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Labour Bureau, Molong Branch, 4 July, 1899.

I have the honor to report that during the year ended 30th June, 1899, no applications, either by employers or by persons seeking employment, have been made at this office. The same report was made for the years ending 30th June, 1897, and 30th June, 1898.

The labour register does not contain a single entry. The only work performed during the year was the furnishing each month of reports to the effect that no names had been registered, no refunds of any description made, and that the state of the labour market remained unaltered. The prevailing rate of wage for the class of labour usually employed, namely, farm and station hands, being from 12s. 6d. to 15s. per week, with rations.

This report as to the state of the labour market applies to the whole year.

I have, &c.,

F. S. MURRAY,  
Labour Agent.

The

The Labour Agent, Maitland, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Labour Bureau, Maitland Branch, 30 June, 1899.

During the year ended 30th June forty-eight persons in want of employment were registered at this office, and forty-eight passes were granted.

The district is purely a farming one (mostly lucerne), and there is no demand for labour; in fact, the work going on is insufficient to supply local demands. No difficulty is experienced in obtaining men when required by employers; beyond a few Government contracts there is nothing new in the district.

The average rate of wages is as follows:—

Labourers ... ..	5s. per day.
Miners ... ..	7s. 6d. per day.
Mechanics ... ..	6s. to 8s. per day.
Carpenters... ..	7s. per day.
Bricklayers... ..	8s. per day.
Masons ... ..	8s. per day.
Farm labourers ... ..	9s. to 12s. per week.

I have, &c.,

H. J. HORNIMAN,

Labour Agent.

The Labour Agent, Moree, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Court-house, Moree, 4 July, 1899.

Having only come to this district some five months ago, I am not in a position to report on the condition of things during last year. It may, however, I think, be said that, instead of the state of the country improving, it has distinctly changed for the worse since the date of the last annual report.

The long-continued drought has, of course, exercised a marked effect on the number of men employed at station work, and, until we again get something approaching the average rainfall, it is not likely that a change for the better will take place.

The building trade in the town is also nearly at a standstill, owing to the difficulty in obtaining timber. Several of the saw-mills, I am informed, have shut down for the present, as it has been found almost impossible to get the felled timber drawn to the mills.

The construction of the Moree-Inverell railway line continues to employ a large number of men; but the works are now being carried on at a great distance from Moree, in the direction of Warialda, so that it is hard to learn the course of events in connection therewith. I understand, however, that everything is proceeding satisfactorily.

The work of the Moree branch has only been of a routine character. During the year no entries have been made in the registers, and, so far as I am aware, no applications for workmen have been received.

The schedule herewith represents the average rate of wages paid during the year; but, unfortunately, there has been little room for many men at the rates mentioned.

I have, &c.,

C. H. GALE, C.P.S., &c.,

Acting as Labour Agent.

Rates of Wages at Moree for July, 1899.

	£	s.	d.	
Station clerks ... ..	50	0	0	per annum, and rations.
Station boys ... ..	18	0	0	" "
Farm labourers ... ..	50	0	0	" "
General labourers ... ..	50	0	0	" "
Domestic servants ... ..	26	0	0	" "
Printers ... ..	2	10	0	per week.
Editor of paper ... ..	3	5	0	"
Compositors ... ..	1	15	0	"
Carpenters ... ..	0	9	0	per day.
Painters ... ..	0	10	3	"
Bricklayers ... ..	0	11	0	"
Hotel grooms... ..	1	5	0	per week.
Shoeblocks ... ..	1	0	0	"
Hotel cooks ... ..	1	10	0	"
Boundary riders ... ..	50	0	0	per annum, and rations.
Drapers ... ..	2	10	0	per week.
Horse-drivers ... ..	1	5	0	"
Grooms on stations ... ..	50	0	0	per annum, and rations.
Fencers ... ..	1	10	0	per week.
Gardeners ... ..	1	5	0	"
Station-hands ... ..	1	0	0	"

The Labour Agent, Muswellbrook, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Muswellbrook, 1 July, 1899.

I do myself the honor to report, for the year just ended, that the business of this branch has been as under:—

Business passes issued, &c.—Three registrations were made, and passes issued—(1) on 29th August, 1898, pass to Narromine; (2) on 20th October, 1898, pass to Boggabri; (3) on 24th October, pass to Boggabri.

Moneys

Moneys collected.—No payments have been made direct to this Branch, but the sum of £1 17s. 6d. was paid at your department in connection with this branch, *vide* your letter 31st January, 1899.

Drought.—It is my pleasing duty to report that this district has been much favoured as regards rainfall, and the effects of the severe drought which has proved so disastrous to other portions of the Colony has been but slightly felt in this portion of the Valley of the Hunter.

Rainfall.—Feed has been fairly plentiful, as may be judged by the quantity of rain that has fallen here during the period under notice; the rainfall from June, 1898, to June, 1899, was 22 inches 83 points.

Labour market, wages, &c.—There has not been any want of employment here, and current wages have ruled; and as far as I can judge, there has not been such a number of "tramps" on the roads in this district, which may, I presume, be taken that this is a prosperous part of the Hunter.

And, in conclusion, may state that up to the present the weather has been most mild, and a good winter in every way is expected, stock being in good condition and grass plentiful.

Trusting this report will meet with your approval,

I have, &c.,

J. KINGSMILL, C.P.S.,

Labour Agent.

The Acting Labour Agent, Murrumburrah, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Murrumburrah, 12 July, 1899.

In compliance with the request contained in your letter of the 8th instant (912/300), I do myself the honor to transmit the attached report, showing the condition of labour and industry in this district.

I have, &c.,

ARTHUR T. PATON.

Acting Labour Agent.

In this district agricultural and pastoral pursuits are principally carried on.

Owing to drought, dairy farming had to be discontinued, and pastoralists had to resort to scrub-cutting for the sustenance of starving stock.

The mining is chiefly alluvial, with one exception—The Crown Point Gold-mines, Limited, at McMahon's Reef.

There is a good deal of what may be called fossicking going on about Cullinga and Murrumburrah, but in all not more than 100 men are employed.

We have experienced a good fall of rain some weeks ago which, though coming late for the growth of the grass, was a great boon to the farmers.

The railway deviation works just started have attracted a large number of men to the district, and they will probably absorb all our local unemployed.

From the date of opening the branch here (14th June) to the present 269 men have registered themselves, nearly all of whom are unskilled labourers.

Since I have taken over the duties of this office a fact has come to my knowledge which calls for strong comment. It appears that it is the practice of the gangers, and others on the deviation works deputed to employ labour, to disregard the fact of a man holding a Labour Bureau ticket, the primary consideration, apart from physical fitness, being the possession of an elector's right on the applicant's part. Such a course of conduct, undoubtedly, renders the establishing of a labour branch here a work of super-erogation on the part of the Government.

The Labour Agent, Newcastle, to The Superintendent, Government Labour Bureau, Sydney.

Newcastle.

I MIGHT point out that, though the number of persons registered has been small, the fact that thirty-seven deserving persons, having eighty-seven others dependent upon them for support, have been assisted to employment shows that some good work has resulted from the Branch.

RETURN of the estimated number of persons employed and unemployed in the various trades and callings, with the ruling rates of wages in each case:—

Class of Employment.	Rates of Wages.	Employed	Unemployed.
Wharf labourers .....	1s. per hour .....	80	45
Carpenters .....	8s. to 9s. per day .....	300	50
Bricklayers .....	9s. to 10s. " .....	30	40
Plasterers .....	9s. " .....	20	30
Shop assistants .....	35s. per week .....	500	40
Carters .....	35s. " .....	550	40
Miners .....	2s. 11d. to 3s. 2d. hewing rate* .....	5,000	200
Joiners .....	9s. per day .....	60	12
Bricklayers' labourers .....	8s. " .....	40	30
Printers .....	8s. " .....	70	10
Stone-masons .....	9s. to 10s. per day .....	60	12
Clerks .....	35s. per week .....	600	70
Plumbers .....	9s. to 10s. per day .....	60	10
Butchers .....	25s. per week and keep .....	180	10
Bakers .....	12s. per day .....	25	5
Labourers .....	5s. to 6s. per day .....	500	80
Watermen .....	About 50s. per week .....	38	Nil.
	Total .....	8,113	684

\* Miners' average earnings, when in work, 7s. 6d. to 9s. per day.

Unless new works are started there is not likely to be any demand for outside labour during the ensuing year.

The miners who are unemployed are chiefly those at Teralba and Stockton, and it is hoped that they will be soon fully employed.

Coal-mining being the most important industry of the district, I have, with the courteous permission of the Chief Inspector of Coal-mines for the Colony, gathered the following valuable information from his published reports:—

The number of collieries in the Northern district in year 1897	...	...	...	...	62
	1898	...	...	...	62
Number of persons employed therein in 1897	...	...	5,925	...	
"	1898	...	6,247	Increase	322
Quantity of coal raised during year 1897 (in tons)	...	...	3,176,869	...	
"	1898	...	3,355,600	Increase	178,731
Value of coal raised, 1897	...	...	£938,774	...	
"	1898	...	£957,505	Increase	£18,731
Coke return, 1898, 34,422 tons, value	...	...	...	...	£34,375

From the same reliable source I have also obtained the following particulars of the shipping business, and the number of vessels cleared outwards for foreign and intercolonial ports:—

Number of vessels in year 1897	...	...	1,375	...	
"	1898	...	1,431	Increase	56
Tonnage, 1897	...	...	1,740,345	...	
"	1898	...	1,808,605	Increase	68,260
Value of imports, 1897	...	...	£510,721	...	
"	1898	...	£409,527	Decrease	£101,194

Export of coal to foreign and intercolonial ports—

Quantity in tons, 1897	...	...	2,431,489	...	
"	1898	...	2,485,394	Increase	53,905
Value, 1897	...	...	£842,347	...	
"	1898	...	£846,128	Increase	£3,781

Total value of exports, inclusive of coal, to foreign and intercolonial ports—

1897	...	...	£1,746,925	...	
1898	...	...	£1,782,634	Increase	£35,709
Export of coke, 1897, 10,448 tons, value	...	...	£13,064	...	
"	1898, 9,644	...	£11,693	Decrease	£1,371

From these figures it will be seen that there has been an increase in 1898 over 1897 in the number of persons employed in and about the mines, in the output of coal, in the number and tonnage of vessels trading to the port, and in the quantity and value of the exports, all of which tends to show that the collieries have worked well during the year, and that the trade is steadily increasing. As the result of negotiations between the coal-mine owners and the miners the price of best Newcastle coal was raised from 6s. 9d. to 8s., f.o.b., from the end of 1898, and at the same time the hewing rate for large coal was raised from 2s. 11d. to 3s. 2d. per ton. There are now, however, some difficulties existing as to this rate in connection with the compulsory weighing, under the Act 60 Vic. No. 12, of all coal gotten, but it is hoped that this will soon be arranged satisfactorily.

The following particulars show the approximate number of seamen employed, the number of ships trading to the port, their tonnage, &c., for the year ending 30th June, 1899:—

Class of Vessel.	Number of Vessels.	Tonnage.	Number of Seamen employed.
Deep-sea traders	1,370	1,799,940	31,510
Coasters between Sydney	2,721	550,000	21,768
Government steamers	10	400	128
Dredges	7	17,500	
Punts (dredge)	10		
Rock-smasher	1		
Tug boats	16	1,091	
Harbour and river steamers	36	720	96

Pontoons used in connection with the dredges:—Two measuring 60 feet by 14 feet each, seven measuring 16 feet by 16 feet each, six measuring 14 feet by 14 feet each.

Total number of vessels, 4,160; tonnage, 2,352,151.

Total number of seamen, 53,660.

Of the number of seamen above-mentioned, 3,000 were shipped or engaged at the port of Newcastle, and 348 reside in the district. Seamen, in this return, include engineers and all others employed on vessels.

The



The ruling wages are:—

Foreign-going sailing vessels—						
Chief mate ... ..	...	...	...	...	...	£7 10s. to £8 per month.
Second mate ... ..	...	...	...	...	...	£5 to £5 10s. "
Carpenter ... ..	...	...	...	...	...	£5 per month.
A.B's. ... ..	...	...	...	...	...	£3 10s. per month.
Ordinary seamen ... ..	...	...	...	...	...	£2 to £2 10s. per month.
Cook ... ..	...	...	...	...	...	£4 per month.
Steward ... ..	...	...	...	...	...	£5 "
Intercolonial sailing vessels—						
Chief mate ... ..	...	...	...	...	...	£8 per month.
Second mate ... ..	...	...	...	...	...	£6 "
Cook and steward ... ..	...	...	...	...	...	£6 10s. per month.
A.B's. ... ..	...	...	...	...	...	£4 per month.
Boys ... ..	...	...	...	...	...	£1 10s. per month.
Foreign-going steamers—						
Chief mate ... ..	...	...	...	...	...	£11 per month.
Second mate ... ..	...	...	...	...	...	£7 15s. per month.
Third mate ... ..	...	...	...	...	...	£6 per month.
Carpenter ... ..	...	...	...	...	...	£5 10s. per month.
Boatswain ... ..	...	...	...	...	...	£4 15s. "
A.B. and lamps ... ..	...	...	...	...	...	£4 per month.
A.B's. ... ..	...	...	...	...	...	£3 10s. per month.
Ordinary seamen ... ..	...	...	...	...	...	£2 10s. "
Chief engineer ... ..	...	...	...	...	...	£18 per month.
Second engineer ... ..	...	...	...	...	...	£12 "
Third engineer ... ..	...	...	...	...	...	£9 "
Fourth engineer ... ..	...	...	...	...	...	£8 "
Donkeymen ... ..	...	...	...	...	...	£4 10s. per month.
Firemen and trimmers ... ..	...	...	...	...	...	£4 per month.
Chief stewards ... ..	...	...	...	...	...	£7 "
Mess-room steward ... ..	...	...	...	...	...	£1 10s. per month.
Chief cook ... ..	...	...	...	...	...	£6 per month.
Second cook ... ..	...	...	...	...	...	£2 "

In view of the significance of the figures contained in the foregoing statements, showing as they do the great importance of the district as the largest labour centre in the Colony, I have taken some pains to show the variety of channels through which all this labour is employed, and I shall here enumerate some of the principal industries outside the coal trade, as well as some closely connected with it. 1st. The railways in the district form a most important factor in the employment of labour and the development of the coal and other trades. In addition to the Government railways, each of the several large collieries has its own railway of considerable value, and upon which much labour and capital has been expended. They are the means of conveying the millions of tons of coal from the pits' mouths to the ships at the cranes on the Dyke at Carrington and the coal-shoots, from all of which it is loaded directly into the ship's holds, and is thence carried to the various foreign and other ports. As showing the great value of those railways, cranes, and shoots, I may mention that in August last the Government railway properties in the immediate vicinity of Newcastle, including the fourteen steam cranes and two hydraulic cranes at Carrington, were the subject of an important magisterial inquiry before Mr. C. N. Payten, S.M., sitting as a Court of Appeal under the Hunter District Water Supply and Sewerage Act, at which lengthy and detailed evidence occupied the attention of the court for thirteen days. Numerous expert valuers having been examined, the properties referred to were assessed for rating purposes at £1,054,000 capital value, of which the property at Carrington before-mentioned formed the largest proportion, namely, £583,738. These railways, cranes, and shoots give employment directly and indirectly to a large number of men. The cranes are worked by the Crane Employees Association, Limited, who contract with the Railway Commissioners for the work. Seventy men are employed at them loading coal day and night (by the aid of the powerful electric light) at the rate of from 1,500 to 2,000 tons a day for each crane. The railways give employment to hundreds of men through the year, all at good average wages.

I am indebted to Mr. B. S. Holland, J.P., town clerk, for a copy of the published accounts of the city council, from which I have gathered the following particulars, viz. :—

The total expenditure for the year 1898 for labour, materials, carting, electric lighting, scavenging, the maintenance and repairing of the city streets measuring 28 miles in length, public recreation reserves, public baths, sea-bathing places, watering of the streets, removal of nightsoil and other sanitary matters, and in the general good government of the city, including salaries, amounted to £18,498.

The council has at present employed 22 labourers, 3 mechanics, 1 carpenter, 1 mason, 1 gardener, 1 quarryman, 1 paver of footpaths, and 2 drainers; in all, 32 men, receiving the following wages:—Foreman, 9s. per day; 16 labourers, 8s. per day; 6 labourers, 7s. 6d. per day; 6 labourers, 7s. per day; 3 labourers, 3s. 10d. per day.

There are also the following licensed drivers:—Cabmen, 26; busmen, 59; van and draymen, 35. Total, 120.

The following are particulars relating to works on the public roads of the district, viz. :—Number of contracts let locally, 76; monthly average of men employed, 116; miles of road constructed, 3½; miles of road cleared, 6½; miles of road formed only, 10; miles of road drained, 10; besides repairs, in which 10 maintenance men were regularly employed. Rates of wages paid by Department, 7s. per diem; rates of wages paid by contractors, 6s. per diem.

The total cost of those works has been about £9,000. There is also a large bridge being built over Cockle Creek, upon which 60 men are employed, including carpenters, masons, and labourers, at the usual Government wages, namely, masons, 12s.; carpenters, 8s.; labourers, 6s. per day.

The

The undermentioned works have been carried out under the direction of the Government Architect's Department:—

Large offices erected for the Hunter District Water Supply and Sewerage Board, costing about £5,000; average number of men employed thereon, about 12.

New post and telegraph offices, Newcastle West, costing about £1,500, and employing on an average about 8 men.

Additions to the Hospital for the Insane at Newcastle, costing about £285, and giving employment to about 8 men.

There were also general contracts costing about £400, and employing 5 men; also minor repairs costing £150, and giving employment to 3 men.

The manager of the "Sulphide Corporation" has very kindly supplied some particulars of the large operations of that Corporation at Cockle Creek. He says they are simply smelters of their own ore, from their own mine, "The Central," at Broken Hill, and buyers of such gold, lead, and silver ores as are available. The ore treated for the past twelve months comprised 31,305 tons of concentrated ore from the Central Mine, and 1,480 tons purchased ore from various other places in New South Wales, from which 18,596 tons of bullion, containing 1,787 oz. of gold and 946,855 oz. of silver, were recovered in addition to the lead. The approximate value of the bullion is about £20 per ton.

The average number of men employed has been 450 during the year, and of those 350 were regularly employed, while the remaining 100 men were not employed full time.

The corporation are adding somewhat to the plant, and there is a probability that the works will be still further extended within the ensuing twelve months, so that there may be a further demand for labour, both temporarily for construction and afterwards for regular work. The figures given are, of course, those for the Cockle Creek works alone, and do not include the labour employed at the Central Mine, which also is in New South Wales. The following are the rates of pay received:—

Smelter hands ... ..	8s.	to 6s. 6d.	per 8 hours.
Roaster hands ... ..	from 7s. 6d.	to 6s. 6d.	"
Fitters and engine-drivers ... ..	10s.	to 8s.	"
Carpenters ... ..	9s.		"
Bricklayers ... ..	10s.	to 9s.	"
Railway maintenance men ... ..	8s.		"
Skilled labourers ... ..	7s.		"
General labourers ... ..	6s. 6d.		"
Youths and boys ... ..	5s.	to 2s. 6d.	"

Amongst the other important industries of the district the following are deserving of mention:—

Ireland's Butter Factory, employing 19 hands, and turning out in the year no less than 1,464,646 lb. of butter.

The Newcastle Gas and Coke Works, employing 46 hands, and producing 70,000,000 cubic feet of gas, 78,000 gallons of tar, and 49,000 tons of coke annually.

The Castlemaine Brewery, employing 43 hands.

Biscuit factory and bakeries, employing over 400 hands.

Two large iron foundries, employing 32 and 21 men respectively.

The "Soho" Foundry of Messrs. Morris and Bearby, of Carrington, at which 80 men are employed.

The Sydney Soap and Candle Works at Waratah, employing from 58 to 89 hands.

The English and Australian Copper Company at Wallsend, employing 40 men.

The Strand Meat-preserving Works, employing 5 men.

The Purified Coal and Coke Works at Wallsend, employing 30 men.

The Co-operative Coal and Coke Company's Works at Plattsburg, employing 20 men.

The Brick Works at Wallsend, employing 10 men.

Proctor's Coach and Buggy Factory at Wickham, employing 12 men.

Coughlin's Cooperage, employing 6 hands.

N.S.W. Aerated Water and Confectionery Company, Limited, employing 36 hands.

Armstrong and Royce's Sawmill and Joinery Works, employing 16 hands.

The Wickham Ironfoundry and Engineering Works have just been newly started in the premises formerly occupied by Messrs. Hudson Brothers, and will shortly be employing from 25 to 30 men.

Bowtell's Steam Brick and Tile Works at Merewether, employing 20 men.

Hughes' Drain-pipe and Pottery Works at Merewether, employing about 10 men.

At Wallsend there are, altogether, about 2,000 men employed, and none actually unemployed. At Minmi there are over 800 hands employed, and none unemployed; there is, however, no demand for further labour at either of those places.

At Teralba there are 110 men on strike at the Pacific Colliery, and about 50 others have been thrown out of work in consequence.

At Dudley Colliery there are about 80 hands employed, and miners are still wanted there. The Burwood Colliery in the same locality is in full work with 300 men employed. The Durham, which has just recently been opened, is employing 50 hands, which number will, in the course of a short time, be considerably increased.

At West Wallsend the Seaham Colliery employs about 300 hands, the West Wallsend about the same number, Killingsworth Colliery about 50 men, and various others, including portion of Young Wallsend, about 200 men. There are about 20 men unemployed there, including miners, painters, bricklayers, stonemasons, and labourers.

The new works in contemplation in the Newcastle District are: A new post-office in Hunter-street, Newcastle; a large graving dock at Stockton, for which a special lease has already been granted, and upon which it is stated that the large sum of £100,000 is to be expended, and probably about 300 men employed; a large floating dock in the basin at Carrington, for which a special lease has also been granted; and a special lease has recently been taken up for the purposes of public baths, to be excavated out of the rocks near the sea-beach at Newcastle, which will also give employment to a number of men.

In conclusion, I desire to acknowledge the valuable assistance which has always readily been given by Mr. Inspector Lynch and his staff of police throughout the district, to whom I have, when applicants were unknown to me, invariably referred for information as to the *bona-fides* of their applications for passes and miner's rights; and who have so ably assisted me in the collection of the details of the information contained in this report.

I desire also here to acknowledge the willing assistance which has been given by Mr. C. H. Hannell, Shipping-master, the officers of the Customs Department, Harbours and Rivers Department, Roads Department, and Government Architect's Department.

I have, &c.,

W. F. ROBERTSON,

C.P.S. and Chamber Magistrate, Agent for the Government Labour Bureau.

The Labour Agent, Nowra, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Labour Bureau, Nowra Branch, 3 July, 1899.

I beg to submit my report for the year ended the 30th June, 1899.

The business transacted at this branch during the year was very light, no employers having registered their names, and only one man applied for registration for employment.

The district is chiefly an agricultural and pastoral one, and very little change takes place in regard to the state of the labour market.

The drought, which was very severe and prolonged, seriously affected all classes in the district, and old settlers here stated that it was about the worst season they could remember.

Gold-mining has been successful at Yalwal, Grassy Gully, and Nerriga, and these gold-fields are rapidly increasing. A large number of men are employed at the mines and prospecting, but operations have been hampered, owing to the scarcity of water, and consequently numbers of men found it difficult to obtain more than a living.

During the month of June last the drought had completely broken, and very heavy rain fell in all parts of the district, which will have a beneficial effect on all classes of labour.

Considering the very bad season, however, there were not many what could be termed unemployed in the district.

General labourers and farm labourers, as a rule, can find some employment, but mechanics find it very difficult. A large number of men were employed in connection with road contracts.

During the year a large number of farmers and farm labourers left this district for the Northern river districts.

The following is the current rate of wages paid throughout the district:—

Bricklayers	...	...	...	...	...	}	7s. to 8s. per diem.
Carpenters	...	...	...	...	...		
Stonemasons	...	...	...	...	...		
Painters	...	...	...	...	...		7s. per diem.
Labourers	...	...	...	...	...		5s. to 6s. per diem.
Farm labourers	...	...	...	...	...		20s. per week, or 10s. with board.
Plumbers	...	...	...	...	...		7s. 6d. per diem.
Bakers	...	...	...	...	...		30s. per week, with board.
Butchers	...	...	...	...	...		20s. to 25s. per week, with board.
Storekeepers' assistants	...	...	...	...	...		10s. to 30s. per week.

I have, &c.,

W. F. MARKS,

Agent.

The Labour Agent, Nyngan, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Labour Bureau, Nyngan Branch, 1 July, 1899.

I have the honor to submit herewith my annual report of the operations of this branch for the year ended 30th June last.

The number of men registered was 113, classified as follows:—

Labourers	...	...	...	...	...	...	...	...	...	92
Miners	...	...	...	...	...	...	...	...	...	4
Engineers	...	...	...	...	...	...	...	...	...	2
Tanners	...	...	...	...	...	...	...	...	...	2
Shearers	...	...	...	...	...	...	...	...	...	1
Sailors	...	...	...	...	...	...	...	...	...	1
Cooks	...	...	...	...	...	...	...	...	...	5
Domestic servants	...	...	...	...	...	...	...	...	...	1
Prospectors	...	...	...	...	...	...	...	...	...	1
Printers	...	...	...	...	...	...	...	...	...	1
Shop assistants	...	...	...	...	...	...	...	...	...	1
Bushmen	...	...	...	...	...	...	...	...	...	1
Blacksmiths	...	...	...	...	...	...	...	...	...	1

The labour market during the year has been in a very stagnant condition, owing principally to the very severe drought that has prevailed during the whole of that time, being the worst known in this district for many years.

A great many of the mines have been obliged to stop work, owing to the want of water, thus throwing many men out of employment; but many of these men are now able to return to work, the drought having partly broken up and sufficient rain having fallen to enable the mines to again commence operations.

The West Bogan scrub works have attracted a good number of men from other districts, the number of *bona fide* residents of this district registered not being more than about 20 per cent., the number of *bona fide* residents unemployed at the present time not being more than from 15 to 20. Many of those who apply to be registered are not genuine unemployed, and cannot be relied upon to remain at work when they obtain it.

The number of unemployed will decrease as soon as sufficient rain falls to enable agriculture to be carried on, which is now practically at a standstill.

The rate of wages prevailing during the year would average as follows:—

Labourers	...	...	...	...	...	...	...	about 6s. per day.
Cooks	...	...	...	...	...	...	...	25s. per week.
Miners	...	...	...	...	...	...	...	30s. "
Boundary riders	...	...	...	...	...	...	...	20s. "
Station hands	...	...	...	...	...	...	...	15s. to 20s. "
Carpenters	...	...	...	...	...	...	...	about 9s. per day.

The timber trade is the only industry carried on at the present time in this district, an additional sawmill having been erected during the year, and the trade has been fairly active.

The rainfall in and about Nyngan from the 1st July, 1898, to the 30th June, 1899, has only been 8½ inches, which will give some idea of the dry season experienced, and the severe check given to the agricultural industry.

Two railway passes have been issued during the year, and no refunds have been received.

I have, &c.,

G. A. HYDE,  
Labour Agent.

The Labour Agent, Narrabri, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Labour Bureau, Narrabri Branch, 13 July, 1899.

The following are the particulars of the work done at this branch during the period above mentioned:—

Passes issued	...	...	...	...	...	...	...	Nil.
Registrations	...	...	...	...	...	...	...	Nil.
Refunds received	...	...	...	...	...	...	...	2; amount, £3 10s. 6d.

During the first half of the year work in town was fairly brisk in the building line, but during the latter half no works have been going on.

With the exception of pastoral pursuits and timber-getting, there are no industries in this district of any importance.

The long-prevailing drought has had a disastrous effect on the grazing pursuits; many thousands of stock have died, and the majority of the remainder have been removed to other districts. Some little work, however, has been made in the cutting of scrub for such as were left.

The timber work has given employment to, on an average, 100 men, who, if experienced workmen, could make from 6s. to 7s. per day clear.

The following wages have been paid in the town and district:—

Boundary riders	...	...	...	...	...	...	...	20s. per week and rations.
Scrub-cutters	...	...	...	...	...	...	...	15s. " "
General labourers	...	...	...	...	...	...	...	15s. " "
Carpenters	...	...	...	...	...	...	from	7s. to 8s. per day.
Bricklayers	...	...	...	...	...	...	...	8s. per day.
Stonemasons	...	...	...	...	...	...	...	9s. "
Wheelwrights	...	...	...	...	...	...	from	8s. to 10s. per day.
Drapers	...	...	...	...	...	...	...	70s. per week.
Grocers	...	...	...	...	...	...	...	50s. "
Butchers—								
Slaughtermen	...	...	...	...	...	...	...	45s. per week.
Assistant slaughtermen	...	...	...	...	...	...	...	30s. "
Carters	...	...	...	...	...	...	...	30s. and rations.
Other employees	...	...	...	...	...	...	from	24s. to 30s. per week.

I have, &c.,

WALTER SCOTT,  
Labour Agent.

The Labour Agent, Orange, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Court-house, Orange, 5 July, 1899.

I do myself the honor to submit my report for the year ended 30th June, 1899.

Four men were registered during the year, all of whom received railway passes for the purpose of enabling them to proceed to private employment.

There has been no demand for labour. A number of men are always camped near the town, but I am inclined to think that many of them do not want to work.

		RATE of Wages.				
Farm labourers	...	...	...	...	...	15s. to 20s. per week.
Miners	...	...	...	...	...	30s. to 45s. ,,

The effect of the drought was marked by light crops, which were not nearly up to the average, but as prices obtained for produce were much higher than usual, through the complete failure in other districts, the return to the farmers was very little, if any, below the average. This district does not suffer nearly as much as many others through droughts, owing to the richness of the soil and good rainfall. I have ascertained from many of the old inhabitants that a drought, which may cause a complete failure of crops in other districts, has never been so bad here as to prevent light crops being grown, and, as I have already stated, the prices increase, which nearly make up for the deficiency in weight.

Orange is really the centre of commerce for the Western District, and on account of its elevation, rich agricultural soil, fine bracing climate, and many other advantages, is frequently mentioned as likely to be chosen as the site for the capital of the Federal Commonwealth.

A report for this district, would, I feel sure, be incomplete without some reference being made to the firm of Messrs. Dalton Brothers, general storekeepers and merchants, established in the year 1849. These premises consist of three storeys, and occupy a space of about 3 acres of land in the centre of the town. Eighty persons are employed, and the yearly expenditure in wages alone amounts to £9,000. The value of stock kept on the premises is £75,000.

The town of Orange has the finest gravitation scheme of water supply in the Colony. The reservoir, which is situated about 3 miles from the town, contains 121 millions of gallons. The cost, including reticulation, was £25,000.

*Mining.*—There are about 800 miners constantly working on the different fields in the district, and the value of gold won during the year ended 31st December, 1898, was £93,910. Several new finds have been made during the year—three of which are likely to prove permanent and give employment to a great number of miners, viz. :—Amaroo, Rosedale, and Palmer's Bulga. The latter place is situated near the Ophir, where gold was first discovered in payable quantities in New South Wales nearly fifty years ago. Some special leases have been applied for on the Macquarie River for dredging, and great returns are expected, as this part of the river is well adapted for dredging, and splendid yields of gold have been won in years past by the primitive cradle, &c. Quite a new departure was made in mining last week by some gold miners at Byng, who came across some good samples of scheelite, which I believe is valued at £35 per ton. Thorough prospecting is being carried on in the district at a much greater depth than heretofore, and I feel sure that double the number of men will be employed in the near future.

I have, &c.,

HENRY J. LEARY,  
Local Agent.

The Labour Agent, Queanbeyan, to The Superintendent, Government Labour  
Bureau, Sydney.

Sir,

Labour Bureau, Queanbeyan Branch, 29 June, 1899.

I have the honor to report that during the twelve months ending 30th June, 1899, there have been eight registrations of unemployed at the Queanbeyan branch. Of these, five have found employment; the sixth case was hardly of a *bona-fide* nature, the applicant registering in order to obtain a railway pass, which, after careful investigation, was refused. The others, as far as I know, did not obtain employment.

These applicants were all from this and adjacent districts.

During the past twelve months four railway passes were issued, the cost of which has, in three instances, been refunded.

The limited patronage this agency receives may be explained by the fact that comparatively few unemployed strangers visit the district.

There is a large number of local men, whose small farms only occupy a portion of their time, and who are always on the look-out for a job. These men know, and are well known by, the local employers of labour, and either party have little occasion to seek the assistance of the Labour Bureau.

Considerable privation and want has existed, during the past twelve months, owing to the long-continued drought. This has at length broken, and present indications give promise of a fine spring and a consequent expansion of farming operations.

There is a fair amount of work going on in the district at the present time, principally scrub-cutting and clearing, but it is fully met locally. Many men, who usually go out west shearing, have this year remained at home, being dissuaded by the drought-stricken state of the Western Districts.

A good many labourers have left for the Murrumburrah railway deviation works.

The bridge over the Queanbeyan River, local road contracts, and some little building employ a few more, and there appears to be legitimate grounds to expect a revival of mining at Captain's Flat and in its neighbourhood.

The district has been remarkably free from industrial disputes during the past year, some slight differences at Captain's Flat having been promptly settled.

The

The following is the current rates of wages obtaining in this district :—

Bakers	...	...	...	...	...	...	...	45s. per week.
Blacksmiths	...	...	...	...	...	...	...	40s. to 50s. per week.
Boundary-riders	...	...	...	...	...	...	...	15s. per week, and rations.
Bricklayers	...	...	...	...	...	...	...	8s. 6d. per day.
Butchers	...	...	...	...	...	...	...	15s. to 25s. per week, with board.
Carpenters	...	...	...	...	...	...	...	7s. to 9s. per day.
Carters	...	...	...	...	...	...	...	5s. "
Compositors	...	...	...	...	...	...	...	30s. to 40s. per week.
Cooks (female and general servants)	...	...	...	...	...	...	...	8s. to 14s. " with board.
Housemaids	...	...	...	...	...	...	...	4s. to 8s. " "
Labourers (agricultural)	...	...	...	...	...	...	...	4s. to 6s. per day. "
Laundresses	...	...	...	...	...	...	...	4s. per day.
Miners	...	...	...	...	...	...	...	20s. to 35s. per week.
Painters	...	...	...	...	...	...	...	8s. to 9s. per day.
Plasterers	...	...	...	...	...	...	...	10s. "
Saddlers	...	...	...	...	...	...	...	30s. to 35s. per week.
Station-hands	...	...	...	...	...	...	...	15s. ,, 20s. ,, and rations.
Stonemasons	...	...	...	...	...	...	...	7s. to 9s. per day.
Tinsmiths	...	...	...	...	...	...	...	9s. "
Storekeepers' assistants	...	...	...	...	...	...	...	20s. to 50s. per week.
Wheelwrights	...	...	...	...	...	...	...	40s. to 50s. "
Plumbers	...	...	...	...	...	...	...	8s. to 9s. per day.

I have, &c.;

H. J. JEFFREYS,  
Agent.

The Labour Agent, Tamworth, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Labour Bureau, Tamworth Branch, 5 July, 1899.

I have the honor to report that for the year ending the 30th June, 1899, little or no work has been done in this office in connection with labour matters. During the period under review one registration has been recorded, and one pass has been issued. The season generally has not been a severe one, and the country now looks prosperous. No new industries have been started. Mining is carried on as usual, but nothing worth special mention has been discovered; however, most men apparently earn sufficient to keep them going. As a rule, genuine steady workers of all classes can find some employment, though, in some instances, the pay offered is below the value of the work performed. Idlers get so little encouragement here that the unemployed of that class find it best to make their visits brief. Employers always seem able to obtain their own workmen, and a number are now engaged on several buildings in course of erection here. The rates of wages, as supplied by the various employers here, are as follows:—

Drapers	...	...	...	...	...	...	...	30s. to 60s. per week.
Butchers	...	...	...	...	...	...	...	30s. to 45s. "
Blacksmiths	...	...	...	...	...	...	...	30s. to 45s. "
Store-carters	...	...	...	...	...	...	...	25s. to 40s. "
Millers	...	...	...	...	...	...	...	45s. to 90s. "
Grocers	...	...	...	...	...	...	...	40s. to 70s. "
Hairdressers	...	...	...	...	...	...	...	30s. to 60s. "
Saddlers and harness-makers	...	...	...	...	...	...	...	45s. to 70s. "
Ironmongers	...	...	...	...	...	...	...	30s. to 60s. "
Bootmakers (piece-work), &c.	...	...	...	...	...	...	...	60s. "
Printers	...	...	...	...	...	...	...	40s. to 45s. "
Compositors	...	...	...	...	...	...	...	40s. to 45s. "
Carpenters	...	...	...	...	...	...	...	6s. to 10s. per day.
Coach and body builders	...	...	...	...	...	...	...	35s. to 80s. per week.
Painters and finishers	...	...	...	...	...	...	...	35s. to 80s. "
General labourers	...	...	...	...	...	...	...	5s. to 8s. per day.

Employers hesitate about giving information as to the wages paid to their own employees.

I have, &c.,

LACHLAN W. BROUGHTON,  
Labour Agent.

The Labour Agent, Tenterfield, to The Superintendent, Government Labour  
Bureau, Sydney.

Sir,

Court-house, Tenterfield, 3 July, 1899.

I have the honor to forward herewith my annual report for year ending 30th June, 1899. The work in this district, such as to give employment to any extent, has not been great—in fact, the town has, through various reasons, been at a standstill. The boot factory has been employing fewer hands than last year, but is still continuing to employ several men. There are two mills which employ labour, but not to any extent. The road work is let out, as usual, by contract, under the supervision of the

the Road Superintendent, and is usually undertaken by contractors, who employ men who are resident in the district. This season has been severe in this district, owing to want of rain, and has made business dull. The rate of wages usually given is as follows:—

Butchers, &c. ... ..	25s. to 30s. per week.
Carpenters ... ..	8s. to 10s. per day.
Blacksmiths ... ..	8s. per day.
Labourers ... ..	7s. „
Mechanics ... ..	8s. „
Compositors and bootmakers ... ..	40s. per week.

I have, &c.,  
W. C. GEIKIE,  
Labour Agent.

The Labour Agent, Wagga Wagga, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Labour Bureau, Wagga Wagga Branch, 1 July, 1899.

With reference to the labour market in this district, I have the honor to inform you that, owing to the removal of the wooden viaduct, and substitution of steel and cement work by the Government, and the vast improvements to the Sandridge Estate by Messrs. Dixon & Co., of Sydney, to utilise the land for the culture of tobacco, there has been a fair amount of employment for these classes of labour, leaving only a small number of unemployed, the rate of wages for these works being about 6s. per day.

The building trade has been moving along steadily, absorbing most of the available labour of the artisans that follow these works, the wages ruling being:—

Carpenters ... ..	7s. 6d. per day.
Bricklayers ... ..	7s. 6d. „
Hod-carriers ... ..	6s. 6d. „

The severity of the drought, necessitating the removal of most of the stock to the mountains, has been the means of employing a large number of men and youths as drovers and shepherds. The wages for this class of work range from 20s. to 27s. 6d. per week for man, horse, and dog, and rations found. In reviewing the past year it is apparent that, had Mr. Dixon not improved Sandridge, and the non-existence of the necessity for removing the stock to the mountains, there would have been a large number of unemployed here; and as both these outlets for labour are worked out, the latter end of the winter will be more severe than the autumn and the beginning of winter.

The failure of crops has materially decreased work with manufacturers of farming implements, &c.; but the recent rains will tend to increase work of an agricultural and pastoral nature.

PHILIP E. ELDERSHAW, C.P.S.,  
Labour Agent.

The Labour Agent, Walgett, to The Superintendent, Government Labour Bureau, Sydney.

Sir,

Court-house, Walgett, 8 July, 1899.

I have the honor to forward you herewith my annual report for the year ending 30 June, 1899, and beg to inform you that no transactions have taken place in connection with this branch during the past year.

The state of the labour market has been extremely dull, during the past twelve months, owing no doubt to the continuance of the drought, which has been extremely severe throughout this district, causing enormous loss of stock, whilst others which could be removed have been taken to more favoured localities. Large numbers of men have been employed in scrub-cutting throughout the district during the past six months in order to save the lives of stock. The rainfall during the past twelve months has been far below the average, 12.25 inches only having been recorded during that period, the result being that the sawmills have had to shut down, being unable to obtain carriers to draw the timber. I have no doubt that during the next few months more work will be offering owing to the approach of the shearing season, and already men are to be seen *en route* to the various stations in search of employment.

There are no industries in the district beyond a few sawmills and wool-washing establishments, it being purely a pastoral district and the class of employment offered is of a labouring character, and the rate of wage is, generally speaking, about £1 per week.

The general rate of wages are as follows:—

Married couples ... ..	£50 to £65 per annum.
Cooks ... ..	20s. to 25s. per week.
Boundary riders ... ..	15s. to 20s. „
General hands ... ..	15s. to 20s. „
Shearers ... ..	£1 per hundred.

The demand at present is quite equal to the supply.

I have, &c.,  
W. STURROCK,  
Labour Agent.

The

The Labour Agent, Wilcannia, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Court-house, Wilcannia, 30 June, 1899.

I have the honor to furnish my annual report:—

Since the opening of the branch at this place no business of any kind has been transacted.

Almost the only labour employed in the district is station-hands, and the current rate of wages is: Boundary-riders, 12s. 6d. to 20s. a week; general hands, 10s. to 20s. a week; bullock and horse drivers, 25s. a week; cooks, 25s. a week; married couples, £65 to £80 per annum; at shearing time, rouseabouts are paid from 20s. to 25s. a week; and shearers get 20s. per 100 sheep. The drought does not appear to affect either the number of men employed by the stations or the rate of wages paid.

So far as I am able to judge, it does not appear that there are many unemployed in the district, although the supply of labour exceeds the demand.

I have, &c.,

J. LAIDLAW,

Labour Agent.

The Labour Agent, Wollongong, to The Superintendent, Government Labour  
Bureau, Sydney.

Sir,

Wollongong, 5 July, 1899.

I have the honor to report that during the year ending 30th June, the names of twelve men, seeking employment at this branch of the Government Labour Bureau were registered in the books kept at this office. These applicants were all local residents, and their reason for registering was in order that in the event of the Government Labour Bureau being requested to furnish part of the labour required for the construction of the Port Kembla Harbour Works, they, as local men, should be given the preference. It is anticipated that before many months elapse these important works will be commenced, and they will be the means of giving a great impetus to all classes of trade in this locality.

Trade generally during the last twelve months has been moderately brisk. At certain periods of the year the rough weather experienced on the South Coast very much retarded coal-shipping operations. However, the inconvenience and loss to the district occasioned by the stormy weather, and the want of a properly-constructed harbour will soon be things of the past, once the Port Kembla Harbour scheme (already sanctioned by Parliament) is carried out.

With other parts of the Colony the Illawarra District participated in the serious effects of the drought, which lasted from early spring until late in the summer. However, a copious downpour of rain has since fallen, and farmers, stock-owners, dairymen, and others anticipate next season to be a fairly successful one.

During the ensuing year the coke industry in this part of the Colony promises to be exceptionally brisk. A Mount Lyell Company of Tasmania is already commencing operations on an extensive scale for the construction of coke-works at Port Kembla. Tenders are being called for the erection of the necessary plant, and the services of navvies for the required excavations are being speedily secured, although the rate of pay offered by the company for the last-mentioned kind of work is only 6s. per day. However, several men have already tendered their services at this rate of remuneration.

Generally speaking, the coming year in this district promises to be more prosperous than has been the case for many years.

H. S. BINGLE,

Labour Agent.

The Labour Agent, Young, to The Superintendent, Government Labour Bureau,  
Sydney.

Sir,

Labour Bureau, Young Branch, 1 July, 1899.

I have the honor to report that the operations of this branch during the year ending the 30th June last have been of a very limited character. Only four men applied to be registered, two of whom obtained employment.

The labour market, although at times much depressed owing to the severe drought, may, on the whole be considered fairly satisfactory under the circumstances.

The following are the rates of wages ruling throughout the year:—Miners, 50s. per week; carpenters, 8s. to 10s. per day; bricklayers, 9s. to 10s. per day; blacksmiths and tinsmiths, 40s. to 50s. per week; painters, 8s. per day; stonemasons, 11s. per day; flour-mill hands, 25s. to 30s. per week; and farm labourers, 15s. to 20s. per week.

The splendid rains, about 4 inches, which have fallen during the past month have completely changed the aspect of things, and a good season is now assured for farmers and pastoralists. The young crops, about which some anxiety was felt, are now looking very promising.

Tanks in some parts are not nearly full, but the supply obtained is sufficient to remove any anxiety for the near future. The effects of the drought, however, will be felt for some time, as the losses of stock have been very heavy, more particularly in the western part of the district. It is estimated that 300 horses, 4,000 cattle, and 100,000 sheep have perished during the past twelve months.

I have, &c.,

R. W. COLLINS,

Labour Agent.



NUMBER of Men registered and assisted to Employment at the Country Branches for the Year ending 30th, June 1899.

Branches.	July.		August.		Sept.		October.		Nov.		Dec.		January.		Feb.		March.		April.		May.		June.		Total Number.	
	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	No. Registered.	Assisted to Employment.	Registered.	Assisted.
Armidale											1	1												1	1	
Aibury																										
Bega			1	3	3	2																				7
Bathurst	1	2																								4
Bourke						1														53	8	1	1			54
Broken Hill							1																			4
Braidwood							1												1							1
Coonamble																										
Cowra																										
Cobar																					1	11	9	3	1	15
Cooma	6	2	2	4	9						1	1	1	1					5	3	3	1	10	6	34	
Coorambundra	2	2	4	4	1	1														1	1	1	1	1	1	11
Dubbo	1	1	1																					1	1	4
Forbes																										1
Grafton									1																	1
Glen Innes																										
Goulburn	6		3	3	6	3	3				2		2	3				5	2			2	2	3		56
Hillston																										
Hay										1														1		3
Junee											1															
Jerrilderie																										
Kempsey, West																										
Lithgow																				1	1					1
Lismore																										
Mudgee																										
Molong																										
Matland	2	2	22	22	8	8	1	1			1	1	2	2				4	4					4	4	48
Moree																										
Muswellbrook			1	1			2	2																		3
Murrumburrah																										
Newcastle	3	4	7	5	1	1	2	2					10	12	4	4		2	2	3	3	3	3	2	2	261
Nowra										1																1
Nyngan	9		10		6		8		6			5		3								26	10	25	22	113
Narrabri																						2	2	1	1	4
Orange																			1	1						8
Queanbeyan			5	2	3	3																				1
Tamworth							1	1																		
Tenterfield																								1	1	1
Wagga Wagga																										
Walgett																										
Wilcannia																										
Wollongong															10	1		2								12
Young			2	2																						4
	30	18	104	51	22	22	21	11	9		12	3	20	18	17	5	19	10	64	15	53	33	315	38	686	224

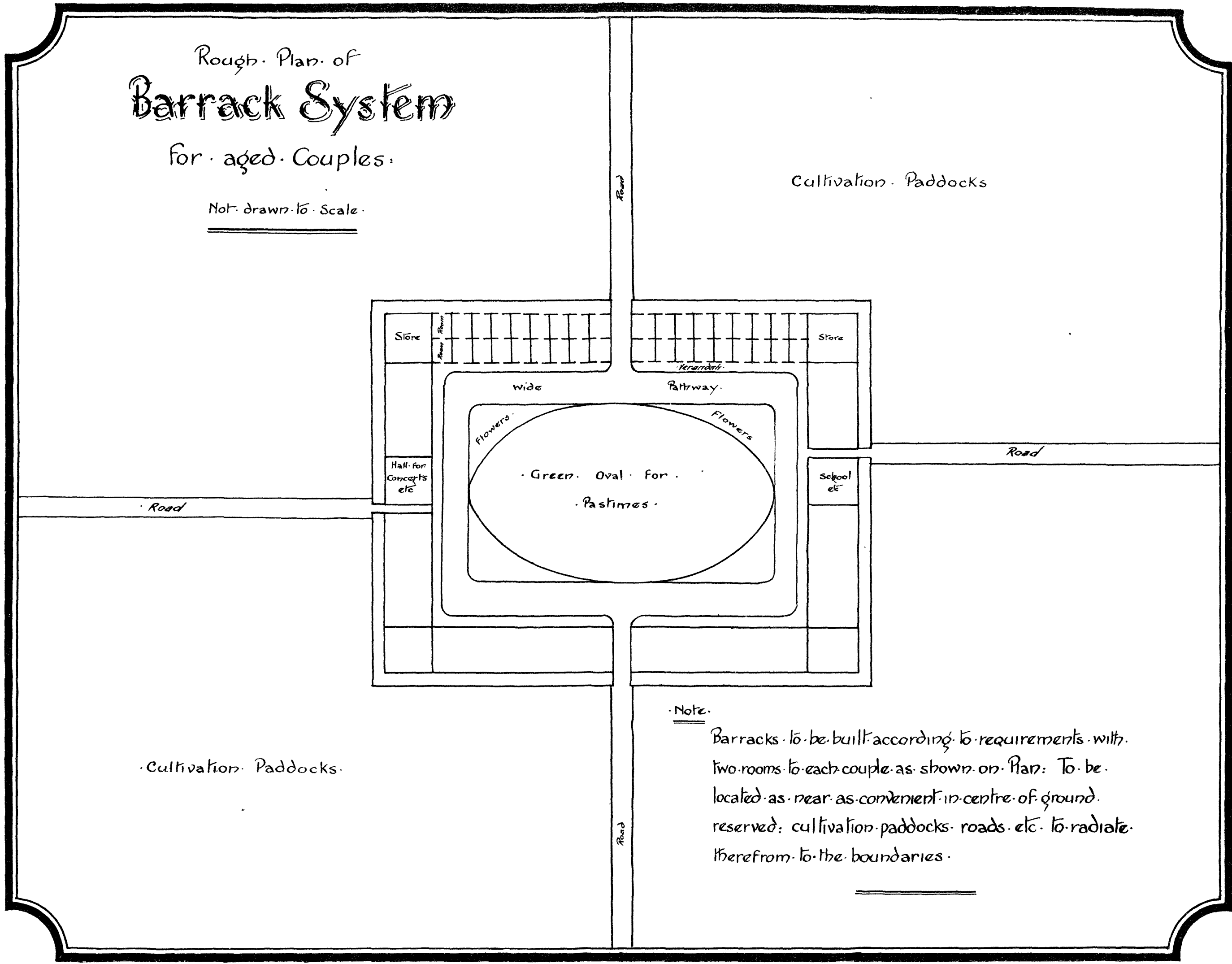
[One Diagram.]



Rough Plan of  
**Barrack System**

for aged Couples:

Not drawn to Scale.



Note.

Barracks to be built according to requirements with two rooms to each couple as shown on Plan: To be located as near as convenient in centre of ground reserved: cultivation paddocks roads etc to radiate therefrom to the boundaries.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## BOARD FOR INTERNATIONAL EXCHANGES.

(REPORT FOR YEAR 1898.)

*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

## The Chairman of the Board for International Exchanges to The Chief Secretary.

Sir,

Board for International Exchanges, Sydney, 29 May, 1899.

On behalf of the Board for International Exchanges, I have the honor to transmit a report of the work done by the Board during the year 1898.

Number of letters and circulars despatched, 603.

Number of parcels despatched, 1,181.

Number of cases despatched, 17, containing 90 parcels for transmission to addresses.

Number of cases received, 24, containing 226 parcels for transmission to addresses within the Colony.

Number of publications received by the Board and presented to various Government Departments, 1,826.

As the Public Library of New South Wales is recognised by the Board as the most suitable depository for the official publications, dealing with subjects of general interest, received from foreign countries, of the 1,826 publications received, 1,304 were handed to that Institution. The value of these publications retained by Government Departments is estimated at £370.

As the financial year is not co-terminous with the year adopted for the furnishing of the annual reports of various Government Departments, it would be difficult to give the exact expenditure of the Board during 1898, as some of the accounts for carriage, such as transhipment of cases from London to New York, Brussels, Paris, &c, are not presented until months after the shipments have been made from Sydney, but during the year cheques were drawn by the Board amounting to £37 3s. 6d. A full statement of the annual receipts and expenditure is furnished each July. The expenditure for the financial year ending on 31st June, 1898, was £51 3s. 6d.

The system of regular exchanges that has been established between this Colony and the Governments of Great Britain, United States, France, Belgium, and Germany, has been satisfactorily continued. Fifty of the official departments at Washington have either exchanged publications with the Board, or have promised to do so. Each individual State of the United States has been asked to exchange official documents with this Colony; some have gladly accepted the proposal, and others have the matter still under consideration.

On the 5th May, 1898, Mr. J. R. Martin, Assistant Statistician, and Dr. R. N. Morris, Superintendent of Technical Education, were appointed additional members of the Board.

The Parliamentary Librarian having reported to the Board that his set of the official publications of the United States was incomplete, the Board obtained, towards the completion of the set, 125 volumes from the authorities at Washington.

During the year the Hon. the Chief Secretary approved of the Board distributing the publications of the Royal, Linnean, and such other local scientific societies as the Board may approve, conditionally that such societies place six copies of their publications at the disposal of the Board. The Royal Society of New South Wales, the Linnean Society of New South Wales, and the Australasian Association for the Advancement of Science having accepted this condition, their proceedings for the past year have been forwarded through the Board.

As a question has been raised as to the Board's authority for requisitioning the Government Printer for the official publications issued by his Department, the Board wish to point out that if it is to carry out the objects of its appointment as originally set forth, 25th July, 1890, "to act on behalf of the Government in the matter of international exchanges of literary and scientific works, official publications, &c.," it must be able to offer any and all of the Government publications of this Colony, in order to get similar publications from such countries as Great Britain, the United States, France, and Germany. The Board has sent away no publication without first being assured that it would get very full value in exchange, and in the case of Great Britain and the United States we have benefited tenfold.

HENRY. C. L. ANDERSON,  
Chairman.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## FIRE BRIGADES BOARD, SYDNEY.

(REPORT FOR 1898, BEING THE FIFTEENTH ANNUAL REPORT.)

Presented to Parliament, pursuant to Act 47 Vic. No. 3, sec. 7.

*Printed under No. 8 Report from Printing Committee, 2 November, 1899.*

## The Chairman to The Chief Secretary.

Sir,

Fire Brigades Board, Castlereagh-street, 20 June, 1899.

Herewith I have the honor, by direction of the Fire Brigades Board, to forward, in compliance with the 7th section of the "Fire Brigades Act, 1884," for the information of the Chief Secretary, the attached report of the Board's administration during the twelve months ending on the 31st December, 1898.

I have, &amp;c.,

CHARLES BOWN,

Chairman.

The Principal Under Secretary.

## REPORT OF THE FIRE BRIGADES BOARD FOR THE YEAR 1898.

The issue of the departmental report for the year 1898 has been delayed in compliance with a request that the 30th June should be taken as the end of the financial year for the preparation of departmental reports. That request having been withdrawn in consequence of the probable early consummation of Australian Federation, the report is now issued for the usual calendar year.

In March, in accordance with the first section of the Fire Brigades Act, the terms of office of the Board, five elective members of the Board expired. Mr. T. M. Tinley, J.P., and Mr. Frederick Jackson, J.P., representing respectively the Fire Insurance Offices having their head-quarters in and out of the Colony, retired, and their seats were filled by the unopposed elections of Messrs. Walter Church, J.P., and S. Hague Smith. The representatives of the Municipal Council of the City of Sydney, of the other Municipalities, and of the Volunteer Fire Companies were re-elected. At the first meeting of the newly-constituted Board, Mr. Church, who had previously held the position for several years, was elected Vice-Chairman.

Forty-five Insurance Offices, or one less than in the previous year, made the returns required by the Act—the sum of their risks amounting to £60,426,170—an increase of £518,217. The contribution levied, upon the basis of the risks, amounted to 2·66 pence in £100. The nominal reduction of one in the number of offices is accounted for by the withdrawal of the Fire Underwriters Association from the collection of contributions from Insurance Institutions having risks but no representatives in the Colony, other arrangements having been made by the interested companies. Such risks escape the contribution levy made under the Act, there being no representatives of the insuring offices to make the prescribed sworn returns. In the year 1897 the insurances so held were returned by the Fire Underwriters Association at £200,200. Of the forty Insurance Companies, the head-quarters of five were in Sydney and of thirty-five out of New South Wales. The Aachen and Munich Fire Insurance Company of Munich was added to the list, while the Indemnity Fire and Marine Insurance Company of Australasia (Limited) retired.

## Municipalities.

No additional municipalities having been proclaimed under the Act, the number of municipal contributories remained forty-three. These returned the assessed value of their ratable property at £4,641,595, a decrease of £78,366 as against the previous year's decrease of £255,678. The persistent fall in values which the municipalities' returns have shown for several years had therefore not touched bottom, but was becoming less rapid. The contribution payable on the basis of the assessment was 316 pence in £, or 2s. 10½d. per £100. The ratio thus again increased in consequence of the continued fall in the assessed values, although the total sum levied by the Board was similar to that of the preceding year. Some of the boroughs have fallen into considerable arrears in payment of their contributions, and have ignored repeated claims for settlement. In justice to those municipalities and other contributories which maintain the department, it is felt that decisive action must be taken, however reluctantly, to compel payment by the defaulting councils.

## Fires.

The number of calls received by the Fire Brigade was 565, of which 64 were false alarms. The fires attended numbered 422, exclusive of 79 chimney fires. In his report, hereto appended, the Superintendent of Fire Brigades draws attention to the illustration afforded by certain fires of the necessity for legislation for regulation of building.

## Building Act required.

As previous reports have pointed out, there can be no doubt that a Building Act, upon modern enlightened lines, is most desirable from an architectural and sanitary point of view, as well as from that of public protection from fire. The conflagration which devastated a large section of the business portion of Regent-street, Redfern, originated in a large timber-yard, from which the flames, fanned by a high wind, swept across the street with such startling rapidity that the residents escaped with difficulty, having no time to save aught but their lives. At the resultant inquiry before the City Coroner, the jury were unable to determine the cause of the fire, other than that it originated in Mr. George Hudson's timber-yard; but added to their verdict this rider:—"We are of opinion that a timber-yard at No. 52, Regent-street is a source of danger to the inhabitants in the vicinity, and should not be permitted." Unfortunately, in the existing state of the law there is no power to prevent the establishment of timber-yards or large stores of inflammable goods of various descriptions in thickly-populated neighbourhoods. The existence of hotels, lodging-houses, restaurants, &c., without adequate means of escape for their inmates in case of fire, is also matter for anxiety.

Ship fires and salvage on—  
s.s. "Buteshire."

Seven fires upon vessels in the harbour were attended and extinguished by the Brigade. Of these, that on the s.s. "Buteshire" calls for especial mention. This steel steamship of 5,574 tons, belonging to the Elderslie Steamship Company (Limited), was lying at Smith's Wharf, Miller's Point, and the Brigade was summoned to its assistance shortly after midnight on the morning of the 19th October. The fire was spreading in the charcoal insulation in the fore hold, and threatened total destruction of the vessel, which was valued at about £85,000. After an exhausting struggle, during which several steam fire-engines and a large quantity of hose and other valuable fire-extinguishing appliances were employed, the fire was finally extinguished at 8 a.m. on Monday, 24th idem. Many of the firemen did not recover for several days from the effects of the heat and smoke in the confined hold, coupled with the strain of continuous trying work for many hours. The wear and tear upon the engines and hose was severe, the heat of the deck destroying much of the latter; and expenses for fuel and other necessaries were also incurred. Acting upon the intention expressed in the Report for the year 1897, the Board preferred a claim for £1,500 for salvage and expenses. The agents for the vessel, Messrs. Dalgety & Co., denied the right of the Board to charge for the services of the Brigade, and offered £100, afterwards raising the sum to £130 for the service. The Board declined the offer, and a case to decide the question at issue is now before the Vice-Admiralty Court.

Bill to extend  
Fire Brigades  
Act to harbour  
waters.

On the 29th November the Board, introduced by the Chief Secretary, waited upon the Colonial Treasurer and Premier, the Right Honorable G. H. Reid, P.C., and in response to their representations, the Minister promised to have a Bill prepared to extend the jurisdiction of the Board over the harbour, and to provide for raising of a revenue by a port due for maintaining fire-floats, &c., for protection of shipping.

## Water.

The Metropolitan Board of Water Supply and Sewerage has continued to accord most courteous consideration to any representations by this department with regard to water service for fire-extinction. The opening of the Centennial Park Reservoir of 18,500,000 gallons capacity, in September, and consequent increase of pressure throughout the area formerly served by the Paddington Reservoir, is an improvement of incalculable value for the purposes of the Fire Brigade.

Traffic in  
explosives,  
inflammable  
liquids, &c.  
Amendment of  
Fire Brigades  
Act.

The traffic in explosives and inflammable liquids, unfortunately, is still carried on without the more stringent regulations which public safety requires. Beyond the Premier's promise to introduce a Bill to extend the Fire Brigades Act to the waters of Port Jackson, there appears to be no immediate probability of the Act being improved in other respects.

Electric  
Tramway.

The Board views with some apprehension the laying of an electric tramway, of the overhead system, in the narrow main thoroughfare of the city. It is feared that the trolley-wires, charged with the electric current, may seriously hamper the firemen in working the fire-escape ladders and other appliances. Every precaution, however, will be taken to minimise the additional risk which, it is feared, will be incurred in case of fire along the route of the line in George-street.

Stations.  
Necessity for  
enlargement of  
head-quarters.  
Manly.  
Parramatta.  
Burwood.

The necessity for increased space at Head-quarters Fire Station is being felt very keenly; but, the repeated proposals submitted by the Board to the Government for extension of the premises have not yet had fruition. In Manly and Parramatta fire stations have been erected, which are now occupied by the local Volunteer Fire Companies. In Burwood a suitable fire station, to be occupied by the Burwood Volunteer Fire Brigade, is to be built as soon as a conveyance of the selected site at the corner of Burwood-road and Belmore-street can be obtained, £1,000 having been provided in the Government Estimates for purchase of the ground. The Government Architect is about to proceed with the alterations required to the old court-house and police station, at Redfern, to fit it for occupation by the Metropolitan Fire Brigade, the Government having provided £1,400 for the purpose. Plans have been prepared by the Board's Architect for the erection of a large station on the site secured in the

## Redfern.

Paddington

Paddington Reservoir Reserve, which also will be occupied by the Brigade. In Chatswood it is proposed to build immediately, and a Volunteer Fire Company has been organised for protection of the rapidly-growing district. A convenient fire station has been erected in Parramatta, at the junction of Church and FitzWilliam Streets, on ground dedicated by the Government for the purpose. It is hoped that the Volunteer Fire Companies and their equipments in Granville, Rookwood, and other places will, before long, be better housed.

At the close of the year there were 171 telephone fire-alarms, connected by 149 miles of wire, in operation in the city and suburbs. Necessity for extreme economy again limited the extension of these most useful aids to Fire Brigades; but it is anticipated that several additional alarms will this year be installed in suitable centres of spreading suburban populations. As mentioned in the last Report, it is found that the greater length of lines required for suburban installations, and the absence of poles along the routes in many localities, render these installations, and their subsequent maintenance, much more costly than those in the city. During the year alarms were placed in Leichhardt, Randwick, and Surry Hills.

The authorised strength of the Metropolitan Brigade on 31st December, 1898, was seventy-three of all ranks, and its discipline and efficiency were unexceptionable. A detachment of the Brigade occupied the fire station in Moncur-street, Woollahra, on the 1st March, the Woollahra Volunteer Fire Company having voluntarily disbanded. On 26th September, Mr. W. D. Bear resigned the position of Superintendent of Fire Brigades, and the Deputy Superintendent, Mr. Alfred Webb, was appointed, under the 8th section of the Fire Brigades Act, to the vacancy. The third officer of the Brigade, Mr. Nicholas George Sparks, was promoted to be Deputy Superintendent, pursuant to the provision of the 6th section. Thorough reorganisation of the Brigade was subsequently entered upon, and the results have proved in the highest degree satisfactory.

The partially-paid corps of auxiliary firemen numbered thirteen at the end of the year—the authorised strength being twenty. This body is peculiarly subject to change in its personnel, in consequence of the various employments of its members compelling them, more or less frequently, to leave the corps in order to take work at distances from the stations to which they are attached, and which, under the Regulations, they must constantly attend after 6 p.m.

The new steam fire-engine and the 50-ft. curricule escape-ladder, which last year's Report mentioned as having been ordered from Messrs. Shand, Mason, & Co., of London, arrived in good condition, and have proved very valuable additions to the equipment of the Brigade.

The Woollahra Volunteer Fire Brigade voluntarily disbanded on 28th February, having to its credit many years of useful service. Its station was occupied by an officer and three men of the permanent Brigade assisted by four auxiliaries. On the completion of the new fire station in Parramatta, the second Volunteer Fire Company in that town went out of existence. One company, with increased subsidy, and horses to enable them to cover a wider area, now protects the district. In Richmond a Volunteer Fire Brigade was established; and negotiations for formation of a Volunteer Brigade in Willoughby, to occupy the contemplated new fire-station at Chatswood, have since the close of the year had successful result. The sums paid to maintain the Volunteer Fire Companies amounted to £2,603, irrespective of considerable expenditure for repair of their stations, renewal and repair of fire-extinguishing appliances, provision of horses, and for payments to the wives of the engine-keepers at a number of the stations to which fire-alarm telephones are connected, for attendance to telephone calls in the daytime when volunteers are absent at their daily work.

The usual Appendices, including the Superintendent's report, furnishing detailed information, are hereto appended.

CHARLES BOWN,  
Chairman.

Adopted at a meeting of the Brigades Board, at Head-quarters Fire Station, Sydney, on Monday, 19th June, 1899.

Z. COLLIS BARRY,  
Secretary.



APPENDIX I.  
MUNICIPALITIES.

Municipality.	Area in Sq. Miles.	Assessment, 1897.	Contribution, 1898.	Municipality.	Area in Sq. Miles.	Assessment, 1897.	Contribution, 1898.
		£	£ s. d.			£	£ s. d.
1. City of Sydney .....	4.5	1,948,957	2,813 5 3	24. Marrickville .....	3.14	128,422	185 7 6
2. Alexandria .....	1.6	52,035	75 2 3	25. Mosman .....	3.2	40,615	58 12 6
3. Annandale .....	0.525	47,107	67 19 11	26. Newtown .....	0.60	148,719	214 13 5
4. Ashfield .....	3.2	116,346	167 18 10	27. North Botany .....	3.4	19,701	28 8 9
5. Auburn .....	3.2	21,580	31 3 0	28. North Sydney .....	3.23	187,760	271 0 6
6. Balmain .....	0.9	181,000	261 5 4	29. Paddington .....	0.63	155,569	224 11 2
7. Botany .....	3.38	19,253	27 15 10	30. Parramatta .....	3.4	59,820	86 7 0
8. Burwood .....	1.64	74,866	108 1 4	31. Penrith .....	39.6	18,213	26 5 10
9. Camperdown .....	0.687	38,127	55 0 8	32. Petersham .....	1.19	114,462	165 4 5
10. Canterbury .....	11.1	33,517	48 7 7	33. Randwick .....	12.5	91,620	132 5 0
11. Concord .....	4	24,740	35 14 3	34. Redfern .....	0.68	132,817	220 11 9
12. Darlington .....	0.04	23,025	33 4 9	35. Richmond .....	0.62	7,308	10 11 0
13. Drummoyne .....	0.8	20,998	30 6 2	36. Rockdale .....	6.94	54,467	78 12 5
14. Enfield .....	2.65	18,618	26 17 5	37. Rookwood .....	8.4	16,832	24 5 11
15. Erskineville .....	0.26	23,473	41 2 0	38. Strathfield .....	2.73	40,115	57 13 1
16. Five Dock .....	2.2	10,961	15 16 5	39. St. Peters .....	1.4	28,333	40 17 11
17. Glebe .....	0.72	134,280	193 16 7	40. Waterloo .....	1.26	57,987	83 14 1
18. Granville .....	4.42	36,109	52 2 5	41. Waverley .....	3.07	102,631	148 2 11
19. Hurstville .....	12.11	38,827	56 0 11	42. Willoughby .....	8.26	45,988	66 7 8
20. Kogarah .....	5.7	28,640	41 6 10	43. Woollahra .....	2.97	123,158	177 15 6
21. Leichhardt .....	1.755	80,621	116 7 6	Totals .....	196.417	4,641,595	6,700 0 0
22. Liverpool .....	20.2	20,013	28 17 9				
23. Manly .....	3.55	48,967	70 13 8				

APPENDIX II.  
INSURANCE COMPANIES.

Company.	*Local or Foreign.	Amount of risk, 31 Dec., 1897.	Contribution, 1898.	Company.	*Local or Foreign.	Amount of risk, 31 Dec., 1897.	Contribution, 1898.
		£	£ s. d.			£	£ s. d.
1. The Aachen and Munich Insurance Co. ....	F	350,545	38 16 3	21. The Mercantile Mutual Insurance Co. ....	L	8,358,753	926 16 4
2. Alliance Assurance Co. ....	"	1,816,337	201 7 11	22. National Fire and Marine Insurance Co. of New Zealand ...	F	1,179,729	130 16 2
3. Atlas Assurance Co. ....	"	423,929	47 0 1	23. Netherlands-India Sea and Fire Insurance Co. (Ltd.) .....	"	136,486	15 2 8
4. Australian Alliance Assurance Co. ....	"	501,640	55 12 5	24. New Zealand Insurance Co. ....	"	1,985,829	220 3 9
5. Australian Mutual Fire Insurance Society .....	L	8,467,529	933 17 7	25. North British and Mercantile Insurance Co. ....	"	1,005,497	111 9 9
6. Batavia Sea and Fire Insurance Co. ....	F	235,700	26 2 8	26. North Queensland Insurance Co. (Ltd.) .....	L	865,106	95 18 6
7. Caledonian Insurance Co. ....	"	473,100	52 9 2	27. Northern Assurance Co. ....	F	692,060	76 14 0
8. City Mutual Fire Insurance Co. (Ltd.) .....	L	3,005,188	323 4 4	28. Norwich Union Fire Insurance Society .....	"	2,226,184	246 16 9
9. Colonial Mutual Fire Insurance Co. (Ltd.) .....	F	1,014,238	112 9 2	29. Palatine Insurance Co. (Ltd.) ...	"	532,544	59 1 0
10. Commercial Union Assurance Co. (Ltd.) .....	"	6,200,329	687 9 10	30. Phoenix Assurance Co. of London	"	1,069,327	118 11 4
11. Cornwall Fire and Marine Insurance Co. (Ltd.) .....	"	258,450	28 13 2	31. Queensland Mutual Insurance Co. (Ltd.) .....	"	269,157	29 16 11
12. Derwent and Tamar Fire and Marine Assurance Co. ....	"	236,923	23 5 5	32. Royal Insurance Co. ....	"	2,186,978	242 9 10
13. Guardian Fire and Life Assurance Co. (Ltd.) .....	"	631,605	70 0 8	33. Royal Exchange Assurance Corporation .....	"	304,703	33 15 9
14. Imperial Insurance Co. (Ltd.) of London .....	"	1,960,875	150 17 10	34. Scottish Union and National Insurance Co. ....	"	473,100	52 9 2
15. Lancashire Insurance Co. ....	"	294,312	32 12 8	35. South British Fire and Marine Insurance Co. of New Zealand .....	"	1,627,553	180 9 3
16. Lion Fire Insurance Co. (Ltd.) .....	"	260,524	28 17 9	36. Standard Fire and Marine Insurance Co. of New Zealand ...	"	532,416	59 0 8
17. Liverpool and London and Globe Insurance Co. ....	"	2,378,508	263 14 7	37. Sun Insurance Office of London	"	1,171,366	129 17 7
18. London and Lancashire Fire Insurance Co. ....	"	1,045,406	115 18 4	38. United Insurance Co. (Ltd.) ...	L	4,092,895	453 16 6
19. London Assurance Corporation	"	414,433	45 19 2	39. United Australian Mutual Fire Insurance Co. (Ltd.) .....	F	360,661	39 19 10
20. Manchester Fire Assurance Co. ....	"	455,261	50 9 7	40. Victoria Insurance Co. (Ltd.) ..	"	1,530,938	169 15 0
				Totals .....	£	60,426,170	6,700 0 0

\* "Local" signifies a Company having its head quarters in New South Wales; "Foreign," any other doing business in the Colony.

APPENDIX III.

SUMMARY of ATTENDANCES at Board Meetings during the year 1898.—(Number of Meetings, 30, exclusive of Committee Meetings.)

Names.	Meetings.	
	Present.	Absent.
Charles Bown, J.P. (Chairman) .....	30	0
*Walter Church, J.P. (Vice-Chairman) .....	22	2
Alderman J. C. Beare, J.P. ....	30	0
Alderman William Taylor .....	30	0
Edward J. Love .....	28	2
*S. Hague Smith .....	22	2
†Frederick J. Jackson, J.P. ....	6	0
†Thomas M. Tinley, J.P. ....	5	1

\* Elected in March.

† Retired in March.

APPENDIX IV.

ABSTRACT of RECEIPTS and EXPENDITURE for the year ending 31st December, 1898.

RECEIPTS.		EXPENDITURE.	
	£ s. d.		£ s. d.
To Insurance Companies—		1 January, 1899.	
Aachen and Munich.....	38 16 3	By Balance brought forward .....	155 14 10
Alliance .....	291 7 11	By Miscellaneous—	
Atlas .....	47 0 1	Plant, stores, &c.....	1,970 15 7
Australian Alliance .....	65 12 5	Clothing .....	612 14 9
Australian Mutual .....	938 17 7	Printing, stationery, postage, &c. ....	97 14 7
Batavia .....	26 2 8	Rates and taxes.....	383 13 1
Caledonian .....	52 9 2	Life assurance premiums .....	397 2 11
City Mutual .....	333 4 4	Cab hire and cartage .....	58 8 0
Colonial Mutual .....	112 9 2	Rewards for calls .....	9 10 0
Commercial Union .....	637 9 10	Rewards for turncocks .....	7 16 0
Cornwall .....	29 13 2	Petty expenses .....	21 0 11
Derwent and Tamar.....	26 5 5	Miscellaneous .....	69 12 4
Guardian .....	70 0 8	Insurance of buildings .....	10 19 8
Imperial .....	160 17 10	Guarantee premiums .....	10 0 0
Lancashire .....	32 12 8	Law costs .....	45 16 10
Lion .....	25 17 9	Services rendered .....	29 0 9
Liverpool and London and Globe .....	263 14 7	Rent .....	334 19 2
London and Lancashire .....	115 18 4		3,959 10 7
London .....	45 19 2	By Buildings, &c.—	
Manchester .....	50 9 7	Ashfield Fire Station .....	6 16 6
Mercantile Mutual .....	926 16 4	Manly Fire Station .....	139 12 2
National of New Zealand .....	130 16 2	Parramatta Fire Station .....	907 2 1
Netherlands India .....	15 2 8	Redfern Fire Station .....	9 6 8
New Zealand .....	220 3 9	Rockdale Fire Station .....	15 5 0
North British and Mercantile .....	111 9 9	Repairs and alterations .....	212 7 9
North Queensland .....	95 18 6		1,230 10 2
Northern .....	76 14 9	By Salaries and Fees—	
Norwich Union .....	246 16 9	Salaries .....	11,007 5 9
Palatine .....	69 1 0	Board fees .....	300 0 0
Phoenix .....	118 11 4	Medical fees .....	16 16 0
Queensland Mutual .....	29 16 11	Audit fees .....	35 0 0
Royal .....	242 9 10		11,359 1 0
Royal Exchange .....	33 15 9	By Lighting and Fuel—	
Scottish Union .....	52 9 2	Lighting .....	593 19 8
South British, of New Zealand .....	130 9 3	Fuel .....	113 1 9
Standard of New Zealand .....	50 0 6		650 1 6
Sun .....	120 17 7	By Horses—	
United .....	453 16 5	Purchase .....	200 0 0
United Australian Mutual .....	29 19 11	Fodder .....	649 11 9
Victoria .....	169 15 0	Harness .....	34 2 0
	6,690 0 1		883 13 9
To Colonial Treasurer .....	6,700 0 0	By Fire Alarms, Telephones, and Electrical Work .....	450 12 6
To Municipalities—		By Subsidies to Volunteer Fire Companies—	
City of Sydney .....	2,313 5 3	Ashfield .....	145 0 0
Alexandria .....	75 2 3	Balmain .....	350 0 0
Annandale .....	67 19 11	Burwood .....	142 10 0
Ashfield .....	167 18 10	Drummoyno .....	75 0 0
Balmain .....	261 5 4	Glebe .....	170 0 0
Botany .....	27 15 10	Granville .....	85 0 0
Burwood .....	168 2 6	Hurstville .....	62 10 0
Camperdown .....	28 3 5	Kogarah .....	75 0 0
Darlington .....	33 4 0	Leichhardt .....	90 0 0
Drummoyno .....	22 15 2	Liverpool .....	26 0 0
Erskineville .....	41 8 7	Manly .....	100 0 0
Glebe .....	243 2 2	North Botany .....	130 0 0
Granville .....	39 15 3	Paddington (No. 1) .....	150 0 0
Hurstville .....	56 0 11	" (No. 2) .....	225 0 0
Kogarah .....	41 0 10	Parramatta (No. 1) .....	85 0 0
Leichhardt .....	116 7 6	" (No. 2) .....	85 0 0
Liverpool .....	28 17 9	Richmond .....	30 0 0
Manly .....	87 15 2	Rockdale .....	140 0 0
Marrickville .....	185 7 6	Rookwood .....	85 0 0
Mosman .....	43 19 5	Waterloo .....	140 0 0
Newtown .....	211 13 5	Waverley .....	163 0 0
North Botany .....	28 8 0	Woollahra .....	50 0 0
North Sydney .....	271 0 6		2,603 0 0
Paddington .....	224 11 2	By Vol. Firemen employed in watching duty .....	95 1 6
Parramatta .....	86 7 0		
Petersham .....	165 4 5		
Randwick .....	132 5 0		
Redfern .....	220 11 9		
Rehmond .....	10 11 0		
Rockdale .....	78 12 5		
Rookwood .....	24 5 11		
St. Peters .....	40 17 11		
Waterloo .....	63 14 1		
Waverley .....	148 2 11		
Willoughby .....	82 18 3		
Woollahra .....	177 15 6		
	6,479 14 4		
To Miscellaneous—			
Plant (sale of) .....	4 4 6		
Horses (sale of) .....	5 0 0		
Services rendered .....	160 0 0		
Rent .....	332 5 8		
Watching duty .....	53 17 0		
Life assurance premiums .....	197 14 7		
Fire protection manuals .....	1 5 0		
Manly Fire Station .....	25 0 0		
Parramatta Fire Station .....	250 0 0		
Rockdale Fire Station .....	50 0 0		
	1,379 6 0		
31 December, 1898.			
To Balance—			
Commercial Banking Co. of Sydney (Ltd.) ..	248 5 3		
Deduct Superintendent's petty cash .....	50 0 0		
	198 5 3		
Total .....	£21,447 6 5	Total .....	£21,447 6 5

Z. COLLIS BARRY, Secretary.

Having examined the books and vouchers of the Fire Brigades' Board for the year ending 31st December, 1898, I certify the above-written Abstract of Receipts and Expenditure to be correct.

23 January, 1899.

JAMES ROBERTSON, F.S.I.A., Auditor.

## APPENDIX V.

## Report by the Superintendent of Fire Brigades.

Head-quarters Fire Station, Castlereagh-street, Sydney, 2 January, 1899.

The Fire Brigades Board, Sydney,—  
Gentlemen,

I have the honor to present the following report on the working of the Fire Brigade and of the Volunteer Fire Companies during the year 1898 :—

The number of calls for fires, or supposed fires, has been 510. Of these, 64 were false alarms, 24 proved to be only chimney fires, and 422 were for actual fires, of which 31 resulted in total destruction, 19 were of a serious nature, and in 372 cases the damage was slight. In addition to the above, the Brigade has attended 55 calls to chimney fires. The number of calls of all descriptions amounted to 565, a decrease on the previous year of 46.

The first part of the year was notable for its freedom from fires of a serious nature; but in the latter part the resources of the Brigade were taxed to their utmost extent on three occasions, and each of these three fires serves as an object lesson to illustrate the necessity for legislation. A fire in Regent-street, Redfern, on the 8th of October, indicated, in a most unmistakable manner, the necessity for an Act to regulate the construction of buildings outside the city. On the 19th of October, a fire occurred on board the s.s. "Bateshure." This fire showed how urgently a powerful floating fire-engine is needed, and subsequent events have also demonstrated very clearly that an amendment of the Fire Brigades Act of 1884 is required, so far as fires on ships are concerned. The third fire to which allusion is made occurred on the 9th November, in a high building, and serves to emphasise the ideas entertained by many authorities, that buildings should not be erected above a height of 90 feet.

The dry weather which was experienced during the latter part of the year was responsible for a large number of grass and bush fires which, although resulting in slight damage to property, were sufficiently serious in their proportions to require the attendance of the Fire Brigade.

In addition to attending fires, a large amount of work has been performed by the staff, a portion of which is now given for the information of the Board.

12,250 watches of 8 hours have been kept.

3,300 hydrant inspections, 12,300 telephone fire-alarm inspections, and 370 building inspections have been made. Steam fire-engines were tested 94 times, and the boilers of 3 steam fire-engines were inspected.

Alterations and repairs have been effected by the Brigade blacksmiths to 7 steam fire-engines, 10 manual engines, 5 hose-carriages, 4 ladders, and 8 other vehicles. Work of an extensive character has also been carried out at 11 fire stations.

The horses of the department have been shod, and the shoes have been made in the Brigade's workshop. Our veterinary expenses have been limited to the cost of medicine.

All the hose has been regularly tested. Ninety-two pairs of couplings have been tied in to hose; 150 buckets were made and fastened to hose; 150 straps were also made. Small general repairs to hose and harness were effected.

A large amount of work has been performed by the Brigade carpenters. All the wood gratings on the roof of head-quarters were renewed; alterations to doors and platform at No. 2 Station have been effected; three telephone switchboards and eight hickory poles were made on the premises. Repairs to nine manual engines and two hose-carriages, besides extensive repairs to the general plant, have been carried out.

A great deal of painting has been found necessary during the year. Most of the stations have had more or less attention in this respect; several engines have been repainted; and all the telephone boxes have been cleaned and repainted twice.

The annual increase in the number of telephone fire-alarms renders the task of keeping them in order more arduous every year. The work done in this connection is of special value. The Manly and Parramatta Stations have been fitted up with a complete system of electric bells; several switchboards have been fitted up; fifty old telephones have been renewed in parts; and all telephones, 317 in number, have been kept in thorough order. All batteries have been fitted, cleaned, and recharged, when necessary, by the staff.

Between 7,000 and 8,000 letters and reports have been written, and a large amount of other clerical work performed.

All this work, when taken in conjunction with attendance at fires, and everything incidental thereto, represents a large amount of labour, and has at times brought a severe strain on the whole staff, but the men have worked cheerfully and well, and I have pleasure in thus acknowledging it.

Each year shows the necessity for increased workshop accommodation. Nearly all the work is performed in unsuitable places, and the men are distinctly at a disadvantage. Were additional space at our disposal I am convinced, good as the results have been, more economy could be practised, as less time would be occupied in doing the work.

In March the Woollahra Volunteer Fire Company disbanded, and a staff of permanent men, with some auxiliaries, were placed in charge.

New stations have been opened at Manly and Parramatta, and fitted with all necessary appliances for turning out to a fire quickly. The Parramatta Volunteer Company, No. 2, ceased working on the 31st December, according to arrangement. Certain alterations were carried out at the premises in George-street, Redfern, which allowed of a hose-reel being stationed there. It is anticipated that other alterations will shortly be made, which will enable a staff of permanent men, steam fire-engine, ladders, and horses to be always in attendance.

Volunteer Fire Companies have been formed at Liverpool and Richmond, and, after undergoing a course of instruction from members of the permanent staff, were registered and subsidised by the Board. Other companies have received regular tuition during the year, and it is anticipated that at fires all will feel the benefit of the instruction imparted.

During the year twelve horses were purchased, one was sold, and six were lent to various Volunteer Fire Companies. We were especially fortunate with our horses during the year.

The new ladder ordered in 1897 for use at Newtown Station has arrived, and the men are now undergoing a course of instruction with it. An additional man and a horse will be placed at this station when the men are conversant with the use of the ladder.

Owing to the very restricted amount of money at disposal, but little extension of the telephone fire-alarm system has been made.

Certain alterations have been made in the constitution of the Brigade which, I am sure, will result in greater efficiency, and the exercise of closer supervision over the area under the jurisdiction of the Board.

We have been very severely handicapped during the last six months in the matter of sickness. Five men were down with measles at one time, and as they recovered other men met with accidents more or less serious, which incapacitated them.

It is my duty to point out that the Fire Brigades Act of 1884 requires amendments of an extensive character. The foremost of these is the manner in which the revenue is raised. The system, in my opinion, is totally wrong, and in the near future I propose to submit a report dealing with the subject, which will allow of adoption in the metropolitan area, and also will be applicable to country districts.

As the work in connection with the electric tramway along George-street approaches completion, the difficulties which its introduction will present to our work become more clear, and it is not too much to say that the duty of life-saving and fire-extinguishing will be greatly impeded and rendered more dangerous by the adoption of this system of tramway. This will be especially noticeable in that part of George-street north of Market-street, where the thoroughfare is so narrow that the distance between the trolley wires and the shop awnings will be limited to a marked degree.

It is anticipated that our telephone fire-alarm system along George-street, and the working of the Circular Quay Station, will be affected prejudicially by the tramway.

The

The officers of the Police Force and of the Water and Sewerage Board have rendered valuable service also, and thanks are due to them for coming so readily to our assistance.

I have to thank the officers and members of the permanent staff and of the Volunteer Fire Companies for the valuable aid and willing co-operation which they have accorded me during the year.

In conclusion, I wish to express my deep sense of gratitude to the Board for the support tendered to me on all occasions, and for the confidence which they have reposed in me.

I have, &c.,

ALFRED WEBB,  
Superintendent.

Detailed information is furnished in the attached Appendices :—

Members of the Brigade.	Weekly Summary of Calls.
Telephone Fire-alarms.	Monthly Summary of Calls.
Stations and Plant.	Comparison of Calls from 1885 to 1898.
Summary of Localities.	Summary of Causes of Fires.
Summary of Trades.	Summary of how Fires were reported to the Brigade.
Hourly and Daily Summary of Calls.	Details of Fires.

#### APPENDIX VI. METROPOLITAN Fire Brigade.

Name.	Rank.	Date of Joining.	Station.
Alfred Webb	Superintendent and Inspector of Kerosene.	26 June, 1888	Head-quarters.
Nicholas G. Sparks	Deputy Superintendent	1 June, 1897	do
John F. Ford	Foreman	1 Aug., 1884	No. 2 Station.
Sidney Watson	do	1 Jan., 1885	No. 3 Station.
George Lang	do	7 Jan., 1885	No. 7 Station.
Thomas Gorman	Assistant Officer	18 June, 1885	No. 4 Station.
Samuel Holman	do	11 Feb., 1886	No. 6 Station.
Thomas G. Cutts	do	19 Mar., 1888	No. 8 Station.
Frank Jackson	do	7 Feb., 1889	No. 9 Station.
John Graham	do	15 April, 1889	No. 5 Station.
George Parsons	do	6 Sept., 1889	No. 3 Station.
Harrie B. Lee	do	19 Feb., 1891	Head-quarters.
Francis Howard	do	19 April, 1888	do
George H. Dudd	do	13 Feb., 1890	No. 5 Station.
Joseph Stancheli	Barrier	1 July, 1884	Head-quarters.
Thomas P. Gordon	1st-class fireman	3 Jan., 1885	No. 7 Station.
George C. Gray	do	1 July, 1884	No. 8 Station.
Robert W. Nash	do	1 Jan., 1887	No. 7 Station.
Albert E. Pickering	do	18 Sept., 1890	No. 2 Station.
Charles May	do	3 Oct., 1890	No. 5 Station.
Edward Smith	do	7 May, 1891	Head-quarters.
John A. Becker	do	12 Mar., 1891	No. 8 Station.
William T. Corkill	do	25 May, 1891	No. 4 Station.
James W. Morris	do	1 Dec., 1891	No. 2 Station.
Harry Skelton	do	24 Mar., 1892	Head-quarters.
John A. Nicoll	do	3 Aug., 1892	No. 3 Station.
Augustus J. Gerard	do	21 Feb., 1890	do
Ephraim Stoneham	do	6 Jan., 1893	Head-quarters.
Edward J. Roberts	do	9 Jan., 1893	No. 9 Station.
Alexander Jamieson	do	18 Nov., 1892	No. 2 Station.
John Wiggins	do	17 Feb., 1893	Head-quarters.
William Whitnall	do	19 June, 1893	No. 2 Station.
George W. Barry	do	21 Aug., 1893	Head-quarters.
James Hancock	do	1 Aug., 1884	No. 6 Station.
George Alchin	2nd-class fireman	28 April, 1890	No. 9 Station.
Christopher J. Digby	do	30 Mar., 1894	No. 2 Station.
James Jones	do	1 June, 1893	Head-quarters.
Henry T. Dawes	do	1 Nov., 1893	No. 5 Station.
George C. J. Wills	do	21 May, 1894	No. 7 Station.
Arthur Houghton	do	14 Sept., 1894	Head-quarters.
William Best	do	9 Oct., 1894	No. 2 Station.
Kenneth Arthurson	do	8 April, 1895	No. 9 Station.
Thomas L. Thomas	do	9 April, 1895	No. 6 Station.
Arthur Dickinson	do	16 April, 1895	Head-quarters.
Francis A. Tuck	do	14 May, 1895	No. 5 Station.
Archibald Murray	do	5 Sept., 1895	do
James Carson	do	9 Oct., 1895	Head-quarters.
Thomas P. Nance	3rd-class fireman	6 Dec., 1895	No. 3 Station.
Francis E. Pickering	do	1 Feb., 1896	No. 4 Station.
James Sorlie	do	1 April, 1896	Head-quarters.
John Chambers	do	6 May, 1896	No. 3 Station.
Arthur W. Vigay	do	1 July, 1896	do
Sidney H. Lister	do	27 July, 1896	Head-quarters.
Charles Andrews	do	14 Sept., 1896	do
Mark Saunders	do	2 Feb., 1897	No. 4 Station.
Arthur E. Hallett	do	1 Mar., 1897	No. 2 Station.
George S. Grimmond	do	1 April, 1897	do
Percival W. Love	do	5 July, 1897	Head-quarters.
George P. Cox	do	19 July, 1897	No. 3 Station.
Samuel Wilson	do	19 July, 1897	No. 6 Station.
John Etherington	do	1 Aug., 1897	Head-quarters.
Philip Henry	do	9 Aug., 1897	do
James H. Kehoe	do	7 Feb., 1898	do
Francis McLaughlin	On probation	1 Aug., 1898	No. 7 Station.
John W. Smith	do	26 Oct., 1898	Head-quarters.
Harry Tuck	do	1 Nov., 1893	do
Peter J. Robinson	do	1 Nov., 1898	No. 3 Station.
Christopher J. Riddell	do	1 Nov., 1898	Head-quarters.
Patrick Finnegan	do	3 Nov., 1898	do
George A. Gordon	do	4 Nov., 1898	No. 8 Station.
James W. Gorrett	do	1 Dec., 1898	Head-quarters.

NOTE.—Two vacancies.

## APPENDIX VII.

## TELEPHONE Fire-alarms.

No. of Box.	Fire Station to which the Alarm is connected.	Locality of Alarm.	Approximate Distance from Station; in yards.
1	No. 1 Station, Head-quarters.....	Corner George and Park Streets, City.....	440
2	" " " ".....	" King and York Streets, City.....	1,010
3	" " " ".....	" King and Pitt Streets, City.....	845
4	" " " ".....	" King and Elizabeth Streets, City.....	810
5	" " " ".....	" Liverpool and College Streets, City.....	850
6	" " " ".....	" Oxford and Riley Streets, City.....	845
7	" " " ".....	" William-street and Boomcrang-road, City.....	815
8	" " " ".....	" Crown and Stanley Streets, City.....	1,090
9	" " " ".....	" Park and Elizabeth Streets, City.....	320
10	" " " ".....	In Macquarie-street, opposite Parliament House, City.....	1,120
11	" " " " (G.P.O.).....	Corner George and Barrack Streets, City.....	1,095
12	" " " ".....	" Pitt and Market Streets, City.....	670
13	" " " ".....	" Sussex and King Streets, City.....	1,210
14	" " " ".....	" Sussex and Erskine Streets, City.....	1,445
15	" " " ".....	" Bathurst and Barker Streets, City.....	770
16	" " " ".....	" Elizabeth and Hay Streets, City.....	640
17	" " " ".....	A. Hordern & Sons, George-street, Haymarket, City.....	945
18	" " " ".....	Corner Sussex and Liverpool Streets, City.....	595
19	" " " ".....	" Kent and Bathurst Streets, City.....	460
20	" " " ".....	" Market and Kent Streets, City.....	835
21	" " " ".....	" Market and York Streets, City.....	725
22	" " " ".....	" Market-street, opposite Wharf-street, City.....	975
23	" " " ".....	" George and Goulburn Streets, City.....	605
24	" " " ".....	" George-street and Union-lane, City.....	430
25	" " " ".....	" Factory and Harbour Streets (J. Bridge & Sons), City.....	900
26	" " " ".....	" Erskine-street and York-lane, City.....	1,275
27	" " " ".....	" Drmitt-street, opposite Weighbridge, City.....	890
28	" " " ".....	" Bourke and Liverpool Streets, City.....	1,100
29	" " " ".....	" Goulburn-street and Macquarie-street South, City.....	585
30	" " " ".....	" Riley and Reservoir Streets, City.....	1,190
31	" " " ".....	" Phillip-street, near St. Stephen's Church, City.....	1,090
32	" " " ".....	" Pitt and Hay Streets, City.....	760
33	" " " ".....	Carlton-street, Kensington Estate.....	4,400
33A	" " " ".....	Corner of Crown and Foveaux Streets, City.....	1,670
34	No. 2 Station, George-street West.....	Opposite the "Tower Inn," George-street, City.....	400
35	" " " ".....	Corner Elizabeth and Devonshire Streets, City.....	710
36	" " " ".....	Elizabeth-street, opposite Hordern's stables, Redfern.....	1,430
37	" " " ".....	Corner Regent and Cleveland Streets.....	550
38	" " " ".....	" Redfern and Botany Streets.....	980
39	" " " ".....	" Abercrombie-place and Cleveland-street.....	760
40	" " " ".....	" Abercrombie and Shepherd Streets.....	1,100
41	" " " ".....	" Cleveland-street, Darlington-road.....	1,100
42	" " " ".....	Opposite Council Chambers, Darlington-road.....	1,810
43	" " " ".....	Corner George-street West and Newtown-road.....	620
44	" " " ".....	" Old Parramatta Road and Forest-street.....	1,550
45	" " " ".....	" Wattle and Mary Ann Streets.....	650
46	" " " ".....	" Wattle and Figg Streets.....	1,320
47	" " " ".....	" Miller-street and Abattoirs-road.....	2,080
48	" " " ".....	" Harris and M'Arthur Streets.....	660
49	" " " ".....	" Harris and Figg Streets.....	1,210
50	" " " ".....	" Harris-street and Pymont Bridge Road.....	1,660
51	" " " ".....	" Harris and Bowman Streets.....	2,210
52	" " " ".....	" Matthew and Engine Streets.....	720
53	No. 3 Station, George-street North.....	" Hunter and George Streets.....	505
54	" " " ".....	" Hunter and Bligh Streets.....	735
55	" " " ".....	" Kent and Margaret Streets.....	1,540
56	" " " ".....	Sussex-street North, near Grafton Wharf.....	1,365
57	" " " ".....	Corner Lang-street and Charlotte-place.....	885
58	" " " ".....	Kent-street, near Gas-lane.....	1,275
59	" " " ".....	Essex-street, near Harrington-street.....	220
60	" " " ".....	Corner Watson's-road and Upper Fort Street.....	840
61	" " " ".....	" Argyle and Playfair Streets.....	320
62	" " " ".....	Foot Bettington street, near China S. N. Co.'s Wharf.....	1,010
63	" " " ".....	Corner Argyle and Kent Streets.....	770
64	" " " ".....	Victoria-terrace, opposite Eye Hospital.....	1,025
65	" " " ".....	George-street North, opposite Mariners' Church.....	330
66	" " " ".....	Corner George-street North and Lower Fort Street.....	660
67	" " " ".....	" Lower Fort and Windmill Streets.....	905
68	" " " ".....	" Young-street and Circular Quay.....	330
69	" " " ".....	" Macquarie street North and Circular Quay.....	795
70	" " " ".....	" Bridge and Macquarie Streets.....	660
71	" " " ".....	" Bent and O'Connell Streets.....	560
72	" " " ".....	" Bridge and Pitt Streets.....	350
73	" " " ".....	Pitt-street, opposite Terry's-lane.....	770
74	" " " ".....		
75	" " " ".....		

## TELEPHONE Fire-alarms—continued.

No. of Box.	Fire Station to which the Alarm is connected.	Locality of Alarm.	Approximate Distance from Station; in yards.
76	No. 4 Station, Darlinghurst	Corner Bourke and William Streets	420
77	"	" Bourke and Junction Streets	725
78	"	" Forbes and Bland Streets	925
79	"	" Macleay-street and Elizabeth Bay Road	440
80	"	" Macleay and Wilde Streets, opposite clock	990
81	"	" Victoria and Orwell Streets	895
82	"	" Victoria-street and Challis-avenue	725
83	"	" Victoria and Burton Streets	470
84	"	Intersection Bayswater-road, Barcom and Womerah Avenues	660
85	"	Corner Elizabeth Bay Road and Onslow-avenue	705
86	"	" Darling Point Road and New South Head Road	1,475
87	"	" Darling Point Road and Yarranabec-road	2,135
88	"	" Darling Point Road and Goomera-crescent	2,885
89	No. 5 Station, Australia-street, Newtown	" King and Hordern Streets, Newtown	505
90	"	" Camden-street and Cook's River Road, Newtown	650
91	"	Intersection of Wells-street, Cook's River Road, and Rochford-street, Newtown	1,090
92	"	Corner Enmore-road and Wilford-street, Newtown	560
93	"	" Enmore and Stanmore Roads, Newtown	930
94	"	" Bishopgate and Wellington Streets, Newtown	695
95	"	" Wilson and Burren Streets, Newtown	800
96	"	Opposite Council Chambers, Erskineville-road, Macdonaldtown	845
97	"	Margaret and Ferndale Streets, Newtown	740
98	"	Intersection Newtown and Darlington Roads and Forbes-street, Newtown	1,235
99	"	Corner Toogood and Munn Streets, Erskineville	1,000
100	"	" Parramatta-road and Park-street, Camperdown	1,510
101	"	" University-street and Missenden-road, Camperdown	1,485
102	No. 6 Station, Walker-street, North Sydney	Intersection Alfred, Junction, and M'Dougal Streets	550
103	"	Corner Alfred and Fitzroy Streets	1,210
104	"	" Blue's Point Road and Blue-street	575
105	"	" Blue's Point Road and Crescent-street North	1,150
106	"	"	
107	"	"	
108	"	Corner Miller and Ridge Streets	730
109	"	" Miller and Falcon Streets	1,275
110	"	" Miller and Amhurst Streets	1,960
111	"	" West-street and Lane Cove Road	880
112	"	Intersection Lane Cove Road, Willoughby-road, and Falcon-street	1,750
113	"	Corner Military and Ben Boyd Roads	1,900
114	"	Intersection Military-road, Glover, Spofforth, and M'Pherson Streets, Mosman	3,100
115	"	Corner Military and Avenue Roads, Mosman	5,050
116	"	"	
117	"	"	
118	"	"	
119	"	"	
120	No. 7 Station, Stanmore-road, Marrickville	Corner Stanmore-road and Holt-street, Petersham	570
121	"	" Cambridge and Merchant Streets, Petersham	1,100
122	"	" New Canterbury Road and Fraser's-road, Petersham	970
123	"	" New Canterbury Road and Eltham-street, Petersham	1,585
124	"	" New Canterbury Road and Marrickville-road, Marrickville	2,200
125	"	" Palace and Norwood Streets, Petersham	1,200
126	"	" Norton-street and Parramatta-road, Leichhardt	1,245
127	"	Council Chambers, Marrickville	1,760
128	"	Corner Marrickville and Illawarra Roads, Marrickville	2,375
129	"	" Illawarra and Warren Roads, Marrickville	3,300
130	"	" Johnston-street and Parramatta-road, Annandale	2,055
131	"	" Johnston and Booth Streets, Annandale	2,870
132	"	" Railway premises and Lackey-street, Summer Hill	2,200
133	"	Council Chambers, St. Peters	3,390
134	"	Cook's River Road and Railway-road, St. Peters	4,050
135	"	Corner Rose-street, and Annandale-road, Annandale	3,750
136	"	"	
137	"	"	
138	"	"	
139	"	"	
140	"	"	
141	Paddington	Corner Park Road and Regent-street	400
142	"	" Elizabeth and Underwood Streets	500
143	"	" Elizabeth and Hargrave Streets	880
144	"	" Glenmore-road and Gurner-street	700
145	"	" Glenmore-road and Liverpool-street	900
146	"	" Glenmore-road and Oxford-street	630

TELEPHONE Fire-alarms—*continued.*

No. of Box.	Fire Station to which the Alarm is connected.	Locality of Alarm.	Approximate Distance from Station; in yards.
147	No. 9 Station, Woollahra .....	Corner Old South Head Road and Queen-street .....	550
148	" .....	" Old South Head Road and Nelson-street .....	825
149	" .....	" Cowper and Oxford Streets, Waverley .....	1,540
150	" .....	" Ocean-street and Point Piper Road .....	770
151	" .....	" South and Bay Streets .....	1,790
152	" .....	" Forth-street and Edgecliff-road .....	470
153	" .....	" New South Head Road and Victoria-road .....	2,780
154	" .....	Intersection Wolseley-road and Hill-street, Point Piper .....	3,400
155	Waverley .....	Corner Birrell and Cowper Streets, Waverley .....	620
156	" .....	Intersection Birrell and Watson Streets, Waverley .....	1,250
157	" .....	" Penkiville-street, Burnett-street, and Bondi-road, Waverley .....	1,430
158	" .....	Corner Bondi-road and Denham-street, Waverley .....	2,230
159	" .....	Opposite Council Chambers, Bondi-road, Waverley .....	1,030
160	" .....	Intersection Flood and Anglesea Streets and Old South Head Road .....	1,870
161	" .....	Corner M'Pherson and Albion Streets, Waverley .....	660
162	" .....	Intersection M'Pherson, Carlton, and Arden Streets, Waverley .....	1,190
163	Balmain .....	Corner Darling and McDonald Streets, Balmain .....	660
164	" .....	" Darling and Johnston Streets, Balmain .....	1,830
165	" .....	" Darling and Wise Streets, Balmain .....	1,170
166	" .....	" Darling and Cambridge Streets, Balmain .....	1,610
167	" .....	" Mullens and Reynolds Streets, Balmain .....	640
168	" .....	" Western-road and Hartley-street, Balmain .....	1,160
169	" .....	" Rowntree and Bay Streets, Balmain .....	900
170	Glebe .....	" Glebe and Cowper Streets, Glebe .....	340
171	" .....	" Brougham and Lyndhurst Streets, Glebe .....	550
172	" .....	" Glebe and Wigram Roads, Glebe .....	870
173	" .....	" Glebe-road and Leichhardt-street, Glebe .....	1,300
174	" .....	" Ross-street and Bridge-road, Glebe .....	880
175	North Botany .....	" Botany-road and Bay-street, Botany .....	2,245
176	" .....	" Botany-road and Stephen-road, Botany .....	4,550
177	" .....		
178	" .....		
179	No. 8 Station, Gerard-street, Alexandria...	" Henderson-road and Brandling-street, Alexandria ...	650
180	" " " " .....	" Mitchell-road and Barclay-street, Alexandria .....	1,040
181	" " " " .....	" Botany-road and McEvoy-street, Waterloo .....	845
182	" " " " .....	" Botany-road and Epsom-road, Waterloo .....	2,015
183	" " " " .....		
184	Waverley .....	" Frenchman's-road and Glebe-street, Randwick .....	1,760
185	" .....	" Avoca-street, and Allison-road, Randwick .....	2,640
186	" .....		
187	Leichhardt .....	" Elswick and Marion Streets, Leichhardt .....	660

APPENDIX VIII.  
Stations and Working Plant.

	Permanent Men, including Superintendent.	Auxiliaries.	Horses.	Large Steam Fire-engines.	Small Steam Fire-engines.	Manual Engines.	Large Ladders.	Small Ladders.	Scaling Ladders.	Hose Carriages.	Hose Noels.	Carts and Vans for Visiting and for Hose.	Buggies.	Hose Tenders.	Hand-pumps.	Heaters for Steam Fire-engines.	Hose, ft. of, 3/4 in. Lined.	Hose, ft. of, 2 1/2 in. Lined.	Hose, ft. of, 2 1/2 in. Unlined.	Suction Pipes, ft. of.	Jumping Shafts.	Telephone Fire-alarms.	Telephone Shutter-boards.	Telephones, erected and spare.	Telephone and Fire-Alarm Wire, miles of.	Bell-boards.	Respirators.							
<b>M. F. BRIGADE.</b>																																		
No. 1, Head-quarters.....	26	..	9	1	1	3	..	1	33	1	1	..	..	1	9	..	320	6,360	1,700	156	..	68	1	44	1	..	2	Freehold.						
No. 2, George-street West .....	9	..	3	..	..	..	..	..	10	..	..	..	..	..	4	..	..	1,920	..	42	1	..	..	6	1	..	..	Freehold.						
No. 3, Circular Quay .....	9	..	4	1	1	..	..	..	..	..	..	..	..	..	4	..	..	1,770	..	51	1	..	..	6	1	..	1	Freehold.						
No. 4, Darlinghurst .....	5	..	2	..	1	..	..	..	6	..	..	..	..	..	2	..	..	680	800	18	1	..	..	4	1	..	..	On 21 years' lease.						
No. 5, Newtown .....	5	..	3	..	1	..	..	..	6	..	..	..	..	..	2	..	..	1,100	..	23	1	..	..	5	1	..	..	Freehold.						
No. 6, North Sydney .....	4	1	3	..	..	1	..	..	6	..	..	..	..	..	2	..	..	1,700	500	17	..	13	1	2	1	..	..	Freehold.						
No. 7, Marrickville .....	4	..	3	..	..	..	..	..	6	1	..	..	..	..	2	..	..	1,180	..	17	1	..	..	6	1	..	..	Freehold.						
No. 8, Alexandria .....	4	2	..	..	..	..	..	..	6	1	1	..	..	..	1	..	..	1,200	300	..	5	1	1	1	1	..	..	On lease from Council.						
No. 9, Woollahra .....	4	4	..	..	..	1	..	..	6	1	..	..	..	..	1	..	..	560	800	..	9	1	1	1	1	..	..	On lease.						
No. 10, Redfern .....	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	Freehold.						
Totals .....	*71	13	29	2	6	5	2	4	86	4	6	5	2	1	23	3	320	16,726	8,600	359	6	101	9	76	9	3	..	..						
<b>VOLUNTEER STATIONS.</b>																																		
Ashfield .....	13	..	2	..	..	1	..	..	4	..	..	..	..	..	1	..	..	145	750	24	..	..	..	2	..	..	..	..	Station on lease. Plant belongs to Board.					
Balmain .....	10	..	2	..	..	1	..	..	4	..	1	1	..	..	2	..	..	325	640	24	..	7	1	1	..	..	..	..	Land, station, and plant belong to Board; engines, &c., to Company.					
Burwood .....	15	..	2	..	..	1	..	..	4	..	1	..	..	..	1	..	..	405	400	12	..	..	..	1	..	..	..	..	Station on lease. Plant belongs to Board.					
Drummoyne .....	14	..	1	..	..	1	..	..	4	..	1	..	..	..	1	..	..	970	12	..	..	..	..	1	..	..	..	..	Land and station belong to Company, and plant to Board.					
Glebe .....	13	..	1	..	..	..	..	..	6	1	1	..	..	..	1	..	..	600	200	..	..	5	1	1	..	..	..	..	..	Station on lease. Most of plant belongs to the Company.				
Granville .....	16	..	..	..	..	1	..	..	2	..	1	..	..	..	1	..	..	60	780	12	..	..	..	..	..	..	..	..	..	Station on lease. Plant belongs to Board.				
Hurstville .....	14	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	900	12	..	..	..	1	..	..	..	..	..	Station on lease. Plant belongs to Board.				
Kogarah .....	11	..	1	..	..	..	..	..	3	1	..	..	..	..	..	..	..	640	160	..	..	..	1	1	..	..	..	..	..	Station on lease. Plant belongs to Board.				
Leichhardt .....	12	..	2	..	..	1	..	..	4	..	1	..	..	..	1	..	..	440	520	23	..	1	1	1	..	..	..	..	..	..	Station on lease. Plant belongs to Board.			
Liverpool .....	20	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1,060	..	..	..	..	..	..	..	..	..	..	..	Station belongs to Company; plant to Board.			
Manly .....	13	..	..	..	..	1	..	..	2	..	2	..	..	..	..	..	..	..	945	23	..	..	..	1	..	..	..	..	..	..	Land, station, and plant belong to Board.			
North Botany .....	13	..	2	..	..	1	..	..	4	..	..	..	..	..	..	..	..	610	200	16	..	2	1	1	..	..	..	..	..	..	Station on lease. Plant belongs to Board.			
Paddington No. 1 .....	13	..	1	..	..	1	..	..	2	1	..	..	..	..	3	..	..	100	370	..	..	6	1	1	..	..	..	..	..	..	Land on 50 years' lease. Part of plant belongs to Company.			
Paddington No. 2 .....	15	..	2	..	..	1	..	..	2	..	1	..	..	..	2	..	..	480	..	13	..	..	..	1	..	..	..	..	..	..	Station and land on lease. Part of plant belongs to Company.			
Parramatta No. 1 .....	17	..	2	..	..	1	..	..	8	1	1	..	..	..	1	..	..	..	1,200	30	..	..	1	1	..	1	..	..	..	..	..	Station and land belong to Board; part of plant to Company.		
Parramatta No. 2 .....	18	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	995	24	..	..	..	1	..	..	..	..	..	..	..	Company disbanded, 31/12/1893.		
Richmond .....	13	..	..	..	..	..	..	..	4	..	1	..	..	..	1	..	..	..	800	..	..	..	..	..	..	..	..	..	..	..	..	..	Station belongs to Company; plant to Board.	
Rockdale .....	13	..	2	..	..	1	..	..	4	..	1	..	..	..	1	..	..	620	800	23	..	..	1	1	..	..	..	..	..	..	..	..	Land, station, and plant belong to Board.	
Rookwood .....	15	..	1	..	..	1	..	..	4	..	1	..	..	..	1	..	..	35	785	16	..	..	..	2	..	..	..	..	..	..	..	..	Land purchased with Government grant. Most of plant belongs to Board.	
Waterloo .....	15	..	1	..	..	1	..	..	4	..	..	..	..	..	1	..	..	300	560	16	..	..	..	1	..	..	..	..	..	..	..	..	..	Land leased from Council. Hose belongs to Board; rest of plant to Company.
Waverley .....	14	..	2	..	..	1	..	..	6	..	1	..	..	..	1	..	..	720	300	24	..	9	1	1	..	..	..	..	..	..	..	..	..	Land, station, and plant belong to Board.
Total Volunteers .....	316																																	
Totals .....	387	13	54	2	6	21	2	4	159	8	31	6	2	1	49	3	320	22,289	16,555	683	6	221	18	96	11	3	..	..	..	..				

\* Two vacancies.



APPENDIX IX.  
SUMMARY of Localities for 1898.

City and Suburbs.	Class of Fire.									Total No. of fires.	False alarms.	Chimney fires.		Grand total.
	Slight.			Serious.			Total destruction.					Attended with engines, and reported as house fires.	Attended with hand-pump only.	
	In-sured.	Not in-sured.	Insur-ance un-known.	In-sured.	Not in-sured.	Insur-ance un-known.	In-sured.	Not in-sured.	Insur-ance un-known.					
<b>CITY—</b>														
Bourke Ward .....	15	4	1	...	...	...	...	1	...	21	4	...	4	29
Brisbane " .....	14	5	2	1	...	...	...	...	...	22	2	...	...	24
Cook " .....	2	6	6	...	...	...	...	...	...	14	4	3	3	24
Denison " .....	9	7	7	3	...	...	...	...	...	26	3	3	4	36
Fitzroy " .....	4	5	4	1	...	...	...	...	...	14	3	3	7	27
Gipps " .....	5	4	2	...	...	...	...	...	...	11	1	1	6	19
Macquarie " .....	14	3	...	...	...	...	...	...	...	17	8	...	5	30
Phillip " .....	5	9	3	1	...	...	...	...	...	18	5	...	3	26
<b>Total .....</b>	<b>68</b>	<b>43</b>	<b>25</b>	<b>6</b>	...	...	...	<b>1</b>	...	<b>143</b>	<b>30</b>	<b>10</b>	<b>32</b>	<b>215</b>
<b>SUBURBS—</b>														
Alexandria .....	2	8	...	1	...	...	...	...	...	11	1	...	1	13
Annandale .....	...	2	...	...	...	...	1	1	...	4	1	...	...	5
Ashfield .....	4	5	1	...	...	...	...	...	...	10	...	1	...	11
Balmain .....	5	8	2	...	...	...	1	1	...	17	4	1	2	24
Botany .....	1	...	...	...	...	...	...	...	...	1	...	...	...	1
*Bankstown .....	3	4	1	...	...	...	...	...	...	8	...	...	...	8
Burwood .....	1	1	...	...	...	...	1	...	...	3	...	...	...	3
Camperdown .....	1	2	...	...	...	...	...	...	...	3	...	...	...	3
Canterbury .....	1	2	...	...	...	...	1	...	...	4	...	...	...	4
Concord .....	...	...	...	1	...	...	...	1	...	2	1	...	...	3
Darlington .....	...	1	...	...	...	...	...	...	...	1	...	...	1	2
Drumoyne .....	1	1	...	...	...	...	...	...	...	2	...	...	...	2
Enfield .....	...	1	...	...	...	...	1	...	...	2	...	...	...	2
Erskineville .....	...	3	...	...	...	...	...	...	...	3	...	...	...	3
Five Dock .....	...	1	...	...	...	...	1	...	...	2	...	...	...	2
Glebe .....	2	4	...	...	...	...	...	...	...	6	1	1	6	14
Granville .....	2	1	...	...	...	...	...	...	...	3	...	1	...	4
Homebush .....	...	...	...	...	...	...	...	1	...	1	...	...	...	1
Hurstville .....	2	1	...	...	...	...	2	...	...	5	...	...	...	5
Kogarah .....	...	2	...	...	...	...	1	...	...	3	1	...	...	4
*Lane Cove .....	...	1	...	...	...	...	...	...	...	1	...	...	...	1
Leichhardt .....	4	7	...	...	...	...	...	1	...	12	3	...	...	15
Manly .....	...	3	2	...	...	...	...	1	...	6	...	...	...	6
Marrickville .....	4	5	...	...	...	...	2	...	...	11	...	...	...	11
*Merrylands .....	...	1	...	...	...	...	1	...	...	2	...	...	...	2
Mosman .....	...	3	...	1	...	...	1	...	...	5	...	...	...	5
Newtown .....	5	6	7	...	...	...	...	...	...	18	1	3	1	23
North Botany .....	1	5	...	...	...	...	1	...	...	7	3	...	1	11
North Sydney .....	5	6	2	...	1	...	2	...	...	16	2	1	1	20
Paddington .....	2	1	5	1	...	...	1	...	...	10	4	...	1	15
Parramatta .....	3	2	1	...	...	...	...	1	...	7	...	...	1	8
Petersham .....	6	8	2	...	...	...	...	...	...	16	...	1	1	18
*Pennant Hills .....	...	...	...	...	...	...	...	...	1	1	...	...	...	1
Randwick .....	...	...	...	...	1	...	1	...	...	2	3	...	...	5
Redfern .....	5	8	5	2	...	...	...	...	...	20	1	3	2	24
Rockdale .....	2	4	...	...	...	...	3	...	...	9	4	...	...	13
Rookwood .....	1	...	...	...	...	...	1	...	...	2	...	...	...	2
Strathfield .....	...	...	1	...	...	...	...	...	...	1	...	...	...	1
St. Peters .....	1	1	...	...	...	...	...	...	...	2	1	...	...	3
*Vaucluse .....	...	2	...	...	...	...	...	...	...	2	...	...	...	2
Waterloo .....	3	4	...	1	...	...	...	...	...	8	...	2	3	13
Waverley .....	2	4	...	...	...	...	...	...	...	6	1	...	...	7
Woollahra .....	4	8	3	2	...	...	...	...	...	17	2	...	2	21
*The Harbour .....	5	...	...	2	...	...	...	...	...	7	...	...	...	7
<b>Totals .....</b>	<b>149</b>	<b>169</b>	<b>57</b>	<b>17</b>	<b>2</b>	...	<b>22</b>	<b>8</b>	<b>1</b>	<b>422</b>	<b>64</b>	<b>24</b>	<b>55</b>	<b>565</b>

\* Outside Metropolitan Fire Brigade area.

## APPENDIX X.

## SUMMARY of Trades for 1898.

Trades.	Class of Fires.									Totals.
	Slight.			Serious.			Total Destruction.			
	Insured.	Not insured.	Insurance unknown.	Insured.	Not insured.	Insurance unknown.	Insured.	Not insured.	Insurance unknown.	
Asylums .....	1	2	.....	.....	.....	.....	.....	.....	.....	3
Bakers .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Bedding Manufacturers .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Brd Fanciers .....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Boarding Houses.....	2	2	.....	.....	.....	.....	.....	.....	.....	4
Boat Builders .....	.....	1	.....	.....	.....	.....	1	.....	.....	2
Boiling-down Works .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Bootmakers .....	1	1	.....	1	.....	.....	1	.....	.....	4
Brickworks .....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Bridges .....	.....	2	.....	.....	.....	.....	.....	.....	.....	2
Builders and Contractors .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Buildings in course of erection .....	.....	4	.....	.....	.....	.....	.....	.....	.....	4
Butchers .....	1	1	1	.....	.....	.....	.....	.....	.....	3
Cabinet Makers .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Cometeries .....	.....	6	.....	.....	.....	.....	.....	.....	.....	6
Chemists .....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Coach and Carriage Builders.....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
Coffee and Spice Mills .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Condiment Manufacturer .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Confectioners .....	3	2	.....	.....	.....	.....	.....	.....	.....	5
Dairies .....	1	.....	1	.....	.....	.....	.....	.....	.....	2
Drapers .....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
Engineers .....	1	1	.....	.....	.....	.....	.....	.....	.....	2
Fishmongers .....	.....	3	2	.....	.....	.....	.....	.....	.....	5
Fruiters and Greengrocers .....	1	2	2	.....	.....	.....	.....	.....	.....	5
Furniture Dealers .....	2	.....	.....	1	.....	.....	.....	.....	.....	3
Gas Works .....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
General Merchants .....	4	1	.....	1	.....	.....	.....	.....	.....	6
Glass Merchants .....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Grocers .....	8	1	1	1	.....	.....	1	.....	.....	12
Halls .....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Ironmongers .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Laundries .....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Licensed Victuallers .....	10	.....	4	.....	.....	.....	.....	.....	.....	14
Leather Merchants .....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Manure Works .....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Modellers.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Newspaper Offices .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Offices .....	5	.....	.....	.....	.....	.....	.....	.....	.....	5
Paper Merchants.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Plumbers and Painters .....	1	1	.....	.....	.....	.....	.....	.....	.....	2
Produce Merchants.....	1	2	.....	1	.....	.....	1	.....	.....	5
Printers and Stationers .....	1	.....	.....	1	.....	.....	.....	.....	.....	2
Private Dwellings .....	47	42	36	3	.....	.....	9	2	1	140
Railway Carriages .....	.....	1	.....	.....	.....	.....	.....	1	.....	2
Restaurants .....	4	.....	.....	1	.....	.....	.....	.....	.....	5
Rockrock Factory .....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Schools .....	1	3	1	.....	.....	.....	.....	.....	.....	5
Sheds.....	.....	2	.....	.....	.....	.....	.....	1	.....	3
Ships .....	5	.....	.....	2	.....	.....	.....	.....	.....	7
Stables .....	2	5	.....	2	.....	.....	4	1	.....	14
Stores .....	2	.....	1	.....	.....	.....	1	.....	.....	4
Sugar Works .....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Tailors .....	3	.....	.....	.....	.....	.....	.....	.....	.....	3
Tanners .....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Timber Merchants .....	1	.....	.....	1	.....	.....	.....	.....	.....	2
Tobacconists.....	4	.....	1	.....	.....	.....	.....	.....	.....	5
Tobacco Factory .....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Unoccupied dwellings.....	1	3	1	.....	.....	.....	5	1	.....	11
Varnish Manufacturer .....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Warehouses .....	7	.....	.....	.....	.....	.....	.....	.....	.....	7
Wine and Spirit Merchants .....	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Wool Brokers .....	1	1	.....	1	.....	.....	.....	.....	.....	3
Workshops .....	1	.....	1	.....	1	.....	.....	1	.....	4
Rubbish and Grass Fires .....	.....	73	1	.....	.....	.....	.....	.....	.....	74
Totals.....	146	169	57	17	2	.....	22	8	1	422

APPENDIX XI.

HOURLY and Daily Summary of Calls for 1898.

Hours.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Totals.
A.M., 1.....	4	1	1	4	1	3	1	15
" 2.....	3	2	1	2	2	...	2	12
" 3.....	1	1	4	...	3	3	3	15
" 4.....	5	...	2	1	2	1	...	11
" 5.....	2	1	2	1	1	...	1	8
" 6.....	1	3	1	...	2	1	...	8
" 7.....	3	...	1	...	4	2	1	11
" 8.....	2	2	2	1	2	...	2	11
" 9.....	2	...	2	...	3	1	1	9
" 10.....	3	2	...	5	1	6	1	18
" 11.....	2	1	3	6	1	4	3	20
" 12.....	...	4	4	2	7	6	1	24
P.M., 1.....	1	2	3	4	3	1	2	16
" 2.....	7	...	3	6	6	3	5	30
" 3.....	5	3	2	3	3	5	7	28
" 4.....	3	2	2	3	5	6	5	26
" 5.....	3	3	4	5	4	3	5	27
" 6.....	5	7	5	8	7	10	7	49
" 7.....	8	8	14	7	12	9	14	72
" 8.....	7	7	6	10	4	6	9	49
" 9.....	7	2	4	4	2	11	12	42
" 10.....	2	5	4	1	2	6	6	26
" 11.....	2	4	2	3	2	1	5	19
" 12.....	3	2	4	3	2	2	3	19
Totals .....	81	62	76	79	81	90	96	565

APPENDIX XII.

WEEKLY Summary of Calls for 1898.

Week.	False Alarms.	Chimney Fires.	Fires.	Chimney with Engine.	Totals.	Week.	False Alarms.	Chimney Fires.	Fires.	Chimney with Engine.	Totals.
1st ending Jan. 7 ...	...	1	9	...	10	28th ending July 15 ...	2	2	3	...	7
2nd " " 14 ...	5	...	6	...	11	29th " " 22 ...	...	2	7	2	11
3rd " " 21 ...	...	...	7	...	7	30th " " 29 ...	...	1	8	1	10
4th " " 28 ...	1	1	4	...	6	31st " Aug. 5 ...	1	1	8	1	11
5th " Feb. 4 ...	2	...	8	...	10	32nd " " 12 ...	...	...	7	1	8
6th " " 11 ...	1	...	9	...	10	33rd " " 19 ...	...	2	11	...	13
7th " " 18 ...	2	...	4	...	6	34th " " 26 ...	2	1	5	...	8
8th " " 25 ...	...	...	2	...	2	35th " Sept. 2 ...	2	2	1	...	5
9th " March 4 ...	2	...	3	1	6	36th " " 9 ...	1	1	4	...	6
10th " " 11 ...	4	...	4	1	9	37th " " 16 ...	...	2	8	...	10
11th " " 18 ...	1	...	4	1	6	38th " " 23 ...	3	2	21	1	27
12th " " 25 ...	2	...	4	1	7	39th " " 30 ...	1	1	7	...	9
13th " April 1 ...	1	...	10	...	11	40th " Oct. 7 ...	...	3	8	...	11
14th " " 8 ...	...	2	11	...	13	41st " " 14 ...	1	2	19	3	25
15th " " 15 ...	...	1	5	...	6	42nd " " 21 ...	3	...	19	...	22
16th " " 22 ...	...	...	7	...	7	43rd " " 28 ...	1	...	9	...	10
17th " " 29 ...	1	...	7	...	8	44th " Nov. 4 ...	3	1	14	2	20
18th " May 6 ...	1	2	4	...	7	45th " " 11 ...	4	1	14	1	20
19th " " 13 ...	...	2	1	...	3	46th " " 18 ...	2	2	10	1	15
20th " " 20 ...	1	2	7	1	11	47th " " 25 ...	1	1	22	1	25
21st " " 27 ...	3	3	11	...	17	48th " Dec. 2 ...	1	3	10	...	14
22nd " June 3 ...	...	...	4	...	4	49th " " 9 ...	2	...	27	1	30
23rd " " 10 ...	...	...	4	...	4	50th " " 16 ...	1	1	7	1	10
24th " " 17 ...	1	3	4	...	8	51st " " 23 ...	2	...	10	...	12
25th " " 24 ...	1	...	6	...	7	52nd " " 31 ...	1	2	8	...	11-
26th " July 1 ...	...	1	5	2	8						
27th " " 8 ...	1	4	5	1	11						
							64	55	422	24	565

## APPENDIX XIII.

## MONTHLY Summary of Calls for 1898.

Months.	False Alarms.	Chimney Fires.		Class of Fire.									Grand Totals.
		Attended with engines, and reported to be house fires.	Attended with hand-pump only.	Slight.			Serious.			Total destruction.			
				Insured.	Not insured.	Insurance unknown.	Insured.	Not insured.	Insurance unknown.	Insured.	Not insured.	Insurance unknown.	
January .....	6	.....	2	10	13	5	2	...	.....	2	...	.....	40
February.....	6	.....	.....	11	5	1	1	...	.....	1	...	.....	25
March.....	9	4	.....	12	5	3	...	1	.....	...	...	.....	34
April.....	1	...	4	15	14	3	...	...	.....	1	...	.....	38
May.....	5	1	8	7	7	4	...	...	.....	1	3	...	36
June.....	2	2	4	11	7	2	1	1	.....	1	...	.....	31
July.....	3	3	9	11	7	6	...	...	.....	1	...	.....	40
August.....	5	3	6	13	4	6	3	...	.....	4	...	.....	44
September.....	5	1	6	9	20	2	2	...	.....	3	4	.....	52
October.....	5	5	5	14	24	12	5	...	.....	3	1	.....	74
November.....	10	3	8	16	33	9	1	...	.....	4	...	.....	84
December.....	7	2	3	17	30	4	2	...	.....	1	...	1	67
Totals { 1898.....	64	24	55	146	169	57	17	2	.....	22	8	1	565
1897.....	86	22	54	164	194	26	21	2	.....	30	9	3	611

## APPENDIX XIV.

## COMPARISON of the Calls for the period from 1885 to 1898.

Calls.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	Grand Totals.
False alarms.....	42	32	14	35	33	44	52	47	68	49	82	91	86	64	739
Chimney alarms.....	64	40	60	61	45	52	33	75	75	90	82	69	76	79	901
Fires, slight.....	160	150	174	222	179	207	217	271	210	206	301	230	384	372	3,283
,, serious.....	13	21	18	19	17	12	27	21	23	23	20	27	23	19	263
,, total destruction.....	23	34	15	35	29	18	19	23	25	41	48	34	42	31	417
Totals.....	302	277	281	372	303	333	348	437	401	400	533	451	611	565	5,623

## APPENDIX XV.

## SUMMARY of Causes of Fires for 1898.

Boiler, overheating of .....	3	Lamp, kerosene, upsetting of .....	7
Boiling over of tar, fat, oil, &c. ....	11	Light thrown down .....	100
Burning rubbish.....	12	Lime slaked by rain .....	3
Candle, careless use of .....	38	Matches, careless use of.....	10
Chemicals, explosion of .....	1	" children playing with .....	33
Clothes, in contact with fire .....	1	" rats at .....	4
Doubtful or unknown .....	78	Rackarock, explosion of.....	1
Fire, careless use of .....	3	Spark from flues .....	23
Fireworks.....	8	" funnel .....	1
Flues, defect in .....	6	" another fire .....	6
" foul .....	79	" fireplace .....	9
Furnace, overheating of.....	1	" furnace .....	2
Gas, lighting of .....	11	" locomotive .....	8
" explosion of .....	5	Smoking tobacco .....	9
" escape of .....	5	Spontaneous ignition .....	1
Hearth, defect in .....	2	Stove, overheating of... ..	2
Hot ashes .....	5	Vapour of spirit in contact with flame .....	1
Incendiarism .....	5		
Lamp, kerosene, explosion of .....	7		
		Total .....	501

\* Includes 70 chimney fires.

## APPENDIX XVI.

## SUMMARY of how Fires were reported to the Brigade for 1898.

Calls given by.	Fires.	False Alarms.	Chimney Alarms.		Totals.
			Reported as House Fires.	Attended with hand-pump only.	
Fire-alarm Telephones .....	119	26	10	19	174
G.P.O., per telephone .....	116	17	5	5	143
Newspaper report .....	4	.....	.....	.....	4
Police, per telephone .....	17	1	1	.....	19
Police, at Station .....	12	1	.....	.....	13
Railway Department .....	8	1	1	.....	10
Seen from Stations .....	19	.....	.....	.....	19
Strangers at Stations .....	127	18	7	31	183
Totals.....	423	64	24	55	505

APPENDIX XVII.

DETAILS of Fires which have occurred within the Metropolitan District during the Year ending December, 1898.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898. Saturday, 1 January.	8-20 a.m.	None rec'd. 4-17 p.m.	Burwood-road, Burwood 62, Carrington-st., City.	Neilson & Co. .... D. Pietcher. ....	Grocer .. Private dwelling..	Weatherboard, and iron roof. Brick, with slate roof.	Light thrown down. Unknown .....	None..... Australian Mutual, £800.	Unknown .....	A portion of flooring boards burned in store .....	Inmates, with buckets of water M.F.B., with one hydrant.
"	6-53 p.m.	6-55 p.m.	203, William-street, City	Isaac Rolf .....	Paddock .....	Paddock .....	Light thrown down.	None.....	None .....	A small quantity of rubbish burned in paddock .....	M.F.B., with buckets of water.
Sunday, 2 January.	5-55 a.m.	5-57 a.m.	47, Glenmore-road, Paddington.	J. Connolly.....	Grocer .....	Weatherboard, and iron roof.	Unknown .....	" .....	Australian Mutual, £700.	A shed building, about 20 x 12 ft., and contents, consisting of empty cases, &c. severely damaged by fire.	Neighbours, with buckets of water
Monday, 8 January.	8-30 p.m.	8-36 p.m.	Roslyn-street, off Dar- linghurst-road, City.	.....	Paddock .....	Paddock .....	Light thrown down.	" .....	None .....	A small quantity of bush burned in paddock .....	Burned itself out.
Tuesday, 4 January.	7-50 p.m.	7-54 p.m.	Campbell-street, Hay- market, City.	St. Francis R. C. School	.....	Brick, with slate roof.	" .....	City Mutual, £1,500.	.....	Flooring of school damaged by fire and cutting away .....	M.F.B., with hand-pump.
Friday, 7 January.	1-0 a.m.	1-27 a.m.	Off Mansfield-street wharf, Balmain.	Balmain New Ferry Co.	.....	Wood .....	Unknown .....	Merchants' Marine Co.; World's Marine Co.	.....	Three steam ferry-boats—"Lady Hampden," "Lady Napier," and "Lady Mary." "Lady Hampden" nearly destroyed; "Lady Napier" and "Lady Mary" very severely damaged by fire. Two wharfs with sheds, &c., very severely damaged by fire	Balmain Vol. Fire Co., with hydrant, and M.F.B., with three steam fire-engines, assisted by several Vol. Fire Cos.
"	8-55 p.m.	8-57 p.m.	635, Darling-street, Balmain.	Municipal Council John Taylor .....	Private dwelling..	Brick, with iron roof.	Light thrown down.	None .....	None .....	A small fire in front bedroom .....	Balmain Vol. Fire Co., with buckets of water.
"	8-55 p.m.	9-0 p.m.	Corner Bedford and Trades Streets, Newtown.	Water and Sewerage Board.	Yard .....	Yard .....	Burning rubbish..	" .....	" .....	About 6 ft. of fencing damaged by fire .....	M.F.B., with one hydrant.
Saturday, 8 January.	8-0 p.m.	8-5 p.m.	Vekery's Chambers, Pitt-street, City.	R. Hodgson .....	Offices and dwell- ing	Stone and brick, slate roof.	Candle .....	None.....	Alliance .....	A small quantity of bedding and wearing apparel damaged by fire in bedroom on fifth floor.	Inmates, with buckets of water.
Sunday, 9 January.	8-0 a.m.	None rec'd.	32-34, York-street, City.	Robert Reid & Co. ....	Warehouse .....	Brick and stone, and iron roof	Spark from ad- joining chimney	Several offices— £105,500.	Several offices— £12,000.	About 6 x 2 feet of wooden ceiling on fifth floor damaged by fire	Burned itself out.
"	4-50 p.m.	4-56 p.m.	Elizabeth and Under- wood Sts., Paddington	Kate Lacey .....	Licensed victualer.	Brick, and iron roof.	Children playing with matches	Unknown .....	Unknown .....	Window and window curtains damaged by fire in front room on first floor.	Inmates, with buckets of water.
Monday, 10 January.	2-25 a.m.	2-30 a.m.	Pyrmont Bridge, City.	.....	Bridge .....	Wood .....	Light thrown down.	None.....	None .....	A portion of wooden support of bridge damaged by fire ..	M.F.B., with tozer-pump.
Wednesday, 12 January.	3-35 p.m.	3-47 p.m.	Iron Cove Bridge, Bal- main.	.....	.....	Wood and iron	Spark from ferry boat	" .....	" .....	About 5 feet of flooring of bridge damaged by fire .....	Balmain Vol. Fire Co., with buckets of water.
"	6-57 p.m.	6-58 p.m.	Devonshire-street, City	Railway Department	Fodder-shed ..	Wood, and iron roof.	Unknown .....	" .....	Unknown .....	A small quantity of straw and bran destroyed by fire in truck.	Employees, with hydrant.
Sunday, 6 January.	8-35 p.m.	8-40 p.m.	Botany-road, North Botany.	*John Miller .....	Grocer .....	Brick, with iron roof.	Incendiarism ..	City Mutual, £50	City Mutual, £200	Two beds and bedding in back room on first floor damaged by fire. One bed damaged by fire in middle room, and some furniture damaged by fire in front room on same floor.	North Botany Vol. Fire Co. and M.F.B., with hydrant.
Monday, 17 January.	1-8 a.m.	1-12 a.m.	11, King-street, City	Howard Smith & Co. .	Workshops .....	" .....	Lime slaking ..	None .....	Unknown .....	A quantity of rubbish burned in basement, and a portion of flooring on ground floor damaged by fire	M.F.B., with hydrant.
Tuesday, 18 January.	7-47 p.m.	7-49 p.m.	Prospect-street, Leich- hardt.	.....	Paddock .....	Paddock .....	Light thrown down.	" .....	None .....	A quantity of rubbish burned in paddock .....	Leichhardt Vol. F. Co., with buckets of water.
Thursday, 20 January.	2-20 a.m.	2-25 a.m.	Wickham street, West Botany Road, Rock- dale.	Mrs. Allen Laymouth ..	Private dwelling.	Weatherboard, and iron roof.	Unknown .....	Royal, £60.	Australian Mutual, £175.	A weatherboard cottage of three rooms and kitchen, with contents burned out, and fallen down.	Rockdale and Kogarah Vol. F. Cos., with one hydrant.
Friday, 21 January.	3-5 a.m.	3-3 a.m.	76 Queen-street, Wool- lahra.	Building in course of erection .....	.....	Brick, with iron roof.	Light thrown down.	None.....	None .....	A portion of flooring boards in front room on ground floor damaged by fire.	Woollahra Vol. F. Co., with hydrant.
"	10-30 a.m.	None rec'd.	55, Campbell-street, North Sydney.	David Wilson .....	Bent-shed .....	Wood, with shingle roof.	Burning rubbish..	" .....	" .....	Roof of shed damaged by fire .....	Neighbours, with buckets of water.
"	4-7 p.m.	4-9 p.m.	31, Morehead-street, Redfern.	Miss McDonald .....	Private dwelling..	Weatherboard, and shingle roof.	Spark from adjoining chimney.	United, £350.	.....	A small portion of shingle roof damaged by fire .....	Neighbours and M.F.B., with buckets of water.
Sunday, 23 January.	11-30 p.m.	11-35 p.m.	188, Elizabeth-street, City.	Floira Jacobs .....	Wardrobe dealer	Brick, and iron roof.	Candle .....	None.....	Unknown .....	A small quantity of clothing damaged by fire and water in front room on first floor.	Inmates, with buckets of water.
Tuesday, 25 January.	10-50 p.m.	10-55 p.m.	108, Kippax-street, City.	Richard Nagle .....	Private dwelling..	" .....	Smoking tobacco	" .....	None .....	A small quantity of clothing damaged by fire in back room on first floor.	" .....
Wednesday, 26 January.	8-3 p.m.	8-6 p.m.	60, Landers-street, Redfern.	William Barnard .....	Condiment manufacturer.	Weatherboard, with iron roof.	Kerosene lamp, careless use of.	Indemnity, £125	Unknown .....	A shed building, used as a store, with contents, consisting of pickles, oils, &c., damaged by fire and water.	Inmates and M.F.B., with buckets of water.

\* Two separate and distinct fires; an inquest was held on the 18th instant, at which the jury found that the fires were caused by accident.

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DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898. Friday, 28 January.	8:55 p.m.	9:4 p.m.	Clanalpine-street, Mosman.	*E. H. Symonds . . . . .	Private dwelling	Weatherboard, with non roof.	Incendiarism . . . . .	Sun £300 . . . . .	Commercial Union, £700.	A dwelling-house of ten rooms. Seven rooms burned out, and three remaining rooms and contents severely damaged by fire.	M.F.B. with two hydrants.
" Saturday, 29 January.	3:10 a.m.	None rec'd.	44, Young-street, City.	*E. P. Rich . . . . . E. W. Green, licensed victualler.	"City Club" premises	Brick and iron roof.	Matches, carelessness with.	Standard, £250 . . . . . Unknown . . . . .	Standard, £730 . . . . . Unknown . . . . .	Furniture slightly damaged by removal . . . . . Furniture and fittings slightly damaged by fire and water in private bar on ground floor.	Inmates and police with buckets of water.
" Sunday, 30 January.	8:15 p.m.	8:30 p.m.	Rear of 27, George-street West.	Unoccupied		Brick, with shingle roof.	Burning rubbish	None . . . . .	None . . . . .	A small quantity of rubbish burned in back yard . . . . .	M.F.B., with buckets of water.
" Sunday, 30 January.	1:21 a.m.	1:25 a.m.	Spring Vale Tannery, Botany.	Thomas Elliott . . . . .	Tanner . . . . .	Wood, with iron roof.	Spark in contact with benzine.	Liverpool and London and Globe, £2,100.		Side and ceiling of building damaged by fire . . . . .	Employees and M.F.B., with buckets of water.
" Monday, 31 January.	3:40 p.m.	3:44 p.m.	"Sunnyside," Wardell-street, Petersham.	J. Bartholomew . . . . .	Private dwelling.	Weatherboard, with shingle roof.	Spark from chimney.	None . . . . .	None . . . . .	A small portion of shingle roof of out-house at rear of dwelling damaged by fire.	M.F.B., with buckets of water.
" Monday, 31 January.	3:10 p.m.	3:18 p.m.	"Heathville," Cross-street, Woollahra.	John Todd . . . . .	"	Brick, with shingle roof.	"	"	Unknown . . . . .	A small portion of shingle roof damaged by fire and cutting away.	Woollahra Vol. Fire Coy., with buckets of water.
" Monday, 31 January.	10:50 p.m.	10:55 p.m.	Bay-street, Rockdale.	Unoccupied . . . . .	"	Weatherboard, and iron roof.	Unknown . . . . .	"	Alliance, £100 . . . . .	A cottage of four rooms and kitchen burned out and fallen down.	Rockdale and Kogarah V. F. Cos., with two hydrants.
Thursday, 3 February.	7:21 p.m.	7:29 p.m.	Bennett's Road, Alexandria.	Yick Lee . . . . .	Market garden . . . . .	Garden . . . . .	Light thrown down.	"	None . . . . .	A portion of fencing burned in garden . . . . .	Waterloo V. F. Co., with buckets of water.
Friday, 4 February.	8:17 p.m.	8:20 p.m.	Webb's-avenue, Ashfield.	Mrs. Anderson . . . . .	Private dwelling.	Brick, with slate roof.	Gas bracket . . . . .	Phoenix, £500 . . . . .	Unknown . . . . .	Window curtain burned in front room on first floor . . . . .	Inmates, with buckets of water.
Saturday, 5 February.	8:40 a.m.	8:44 a.m.	63, Railway-avenue, Petersham.	John Stapleton . . . . .	"	Brick, with iron roof.	Light thrown down . . . . .	None . . . . .	"	A small fire in front room on first floor . . . . .	"
Sunday, 6 February.	5:48 p.m.	5:53 p.m.	223, George-street North, City.	†On Chong & Co . . . . .	Warehouse and dwelling.	Stone and brick, iron roof.	"	Sun, £2,000 . . . . .	New Zealand, £1,500 . . . . .	A small fire in basement . . . . .	"
" Monday, 7 February.	10:34 p.m.	10:40 p.m.	Marion-street, Leichhardt.	‡Municipal Council . . . . .	Paddock.	"	Children playing with matches.	None . . . . .	None . . . . .	A portion of fencing burned in paddock . . . . .	Leichhardt V. F. Co., with one hydrant.
" Monday, 7 February.	3:19 a.m.	3:20 a.m.	Joseph-street, Rockwood.	Joseph Abrahamis, licensed victualler.	"Railway Hotel"	Brick, and iron roof.	Rats at matches.	City Mutual . . . . .	City Mutual . . . . .	A portion of contents under counter damaged by fire and water . . . . .	Inmates, with buckets of water.
" Tuesday, 8 February.	1:5 p.m.	1:10 p.m.	Marion-street, Leichhardt.	§Municipal Council . . . . .	Paddock.	"	Children playing with matches.	None . . . . .	None . . . . .	A portion of fencing burned in paddock . . . . .	Leichhardt V. F. Co., with one hydrant.
" Tuesday, 8 February.	12:40 a.m.	12:50 a.m.	George street, Parramatta.	Government Asylum.	"	Weatherboard, and iron roof.	Unknown . . . . .	"	"	A quantity of clothing and clothing material damaged by fire and water in rooms used as tailors' workshop.	Parramatta V. F. Co's., with hydrant.
" Tuesday, 8 February.	1:41 p.m.	1:45 p.m.	34 and 86, Erskine-street, City.	A. W. Green, Superintendent.	Restaurant . . . . .	Brick, with iron roof.	Candle . . . . .	South British, £200.	Unknown . . . . .	Bed and bedding damaged by fire in bedroom on roof . . . . .	Inmates, with buckets of water.
" Tuesday, 8 February.	6:46 p.m.	6:47 p.m.	James-street, Woollahra.	George Israng . . . . . F. W. Harrison . . . . .	Post Office Coffee Palace. Private dwelling.	Weatherboard, and iron roof.	Children playing with matches.	None . . . . .	Australian Mut., £200.	Shed at rear of cottage slightly damaged by fire . . . . .	Woollahra V. F. Co. and neighbours, with buckets of water.
Wednesday, 9 February.	1:10 a.m.	1:17 a.m.	42, Liverpool-street, City.	Carl Bartello . . . . .	Fruiterer . . . . .	Brick, and shingle roof.	Spark from adjoining chimney.	"	Unknown . . . . .	A small portion of shingle roof damaged by fire and cutting away.	M.F.B., with hydrant.
Thursday, 12 February.	8:52 a.m.	8:56 a.m.	101, Kent-street, City.	Sydney Municipal Council.	Yard.	"	Tar hoiling over.	Liverpool and London and Globe, £5,700.	"	About 800 gallons of tar, four iron tanks, a number of wood blocks, and a portion of fencing damaged by fire.	M.F.B. and employees, with sand.
" Friday, 13 February.	11:0 a.m.	11:3 a.m.	80, Pitt-street, City . . . . .	The Atmospheric Gas Co . . . . .	Office . . . . .	Brick, iron and glass roof.	Gas explosion . . . . .	None . . . . .	Several offices . . . . .	Gas meter destroyed, and a small portion of wall damaged by explosion, in front room on second floor.	Inmates.
" Sunday, 13 February.	4:13 a.m.	4:16 a.m.	84 and 86, Woolloomooloo-street, City.	William Mortimer . . . . .	Restaurant . . . . .	Brick, with iron roof.	Unknown . . . . .	"	Alliance, £500 . . . . .	A shop and dwelling of sixteen rooms; shop on ground floor nearly burned out; room over on first floor and contents severely damaged by fire and water; rest of building and contents damaged by heat and smoke.	M.F.B., with two hydrants, assisted by Paddington No. 2 V. F. Co.
" Tuesday, 16 February.	7:20 p.m.	7:23 p.m.	2, Hunter-street, City.	Raine and Horne . . . . .	Offices . . . . .	Stone and brick, and non roof.	Gas explosion . . . . .	United, £150 . . . . .	Australian Mut., £2,000; Mercantile Mut., £2,000; Norwich Union, £2,000; London and Lancashire, £1,000.	Gaslier and a portion of ceiling damaged by explosion in back room on first floor.	Carctakor.
" Sunday, 20 February.	1:44 a.m.	1:48 a.m.	Edgecliffe-road, Woollahra.	Edward Ryan . . . . .	Private dwelling.	Weatherboard, and iron roof.	Candle . . . . .	Alliance, £200.	"	A cottage of three rooms; two back rooms burnt out and roof off; front room and contents severely damaged by fire and water.	Woollahra and other V. F. Cos., assisted by M.F.B., with two hydrants.
" Monday, 21 February.	5:15 a.m.	5:32 a.m.	Walseley and Beaconsfield Road, Mosman.	Mrs. B. Fitzgerald . . . . . Richard Entz . . . . .	" Stable . . . . .	Brick, with slate roof. Weatherboard, with iron roof.	" Unknown . . . . .	None . . . . . " . . . . .	City Mutual, £500 Coml. Union, £65	Side of building damaged by heat . . . . . A shed, about 35 x 12 feet, used as coach-house and stable, containing harness, &c., burned out and fallen down, and about 50 feet of fencing damaged by fire.	" M.F.B., with one hydrant.

\* An inquest was held on the 1st February, the jury returning a verdict, "That the premises were wilfully and feloniously set on fire by some person or persons unknown."  
 † Previous fire, 14th February, 1898.      ‡ Subsequent fire, 7th February, 1898.      § Previous fire, 6th February, 1898.

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898. Saturday, 26 February.	8-2 p.m.	8-5 p.m.	8, Centre-st., Redfern.	J. F. Mullins	Private dwelling.	Brick, and shingle roof.	Spark from chimney.	None	Unknown	A portion of shingle roof damaged by fire and cutting away	M.F.B., with buckets of water.
Monday, 28 February.	3-0 a.m.	8-2 a.m.	6, Centre-st., Redfern. Botany-road, Alexandria.	David S. Hume Frederick Loveridge	General store	Weatherboard, and iron roof.	Unknown	New Zealand, £150.	New Zealand, £100.	Front shop and contents, and storeroom at rear, with contents, severely damaged by fire, smoke, and water, and two back rooms and contents slightly damaged by fire and water.	M.F.B., with one hydrant.
Tuesday, 1 March.	5-7 a.m.	5-12 a.m.	49, Ann-street, City	Charles Anderson	Hat factory	Brick, with iron roof.	Gas stove	Manchester, £1,000; Calcutta, £1,000.	Unknown	A portion of flooring, and one window burned on first floor of factory. Contents of same floor damaged by smoke and water, and a portion of roof damaged by fire	M.F.B., with hydrant.
Saturday, 5 March.	5-15 p.m.	5-19 p.m.	22, Cromwell street, Leichhardt.	Henry Hurley	Private dwelling.	"	Burning rubbish.	None	"	A quantity of rubbish and a few empty cases burned in back yard.	Leichhardt Vol. F. Co., with one hydrant.
Tuesday, 8 March.	4-50 a.m.	4-58 a.m.	201, Catherine-street, Leichhardt	Robert Martin	"	Weatherboard, and iron roof.	Kerosene lamp, carelessness with.	Aust. Mutual, £50	Aust. Mutual, £100.	A cottage of four rooms and kitchen; front bedroom and contents very severely damaged by fire. Rest of building and contents slightly damaged by fire, smoke, and water.	Leichhardt Vol. F. Co., and M.F.B., with one hydrant.
"	"	"	203, Catherine street, Leichhardt.	Michael Kennedy	"	"	"	City Mutual, £35	City Mutual, £160	Furniture damaged by removal	"
Wednesday, 9 March.	5-45 a.m.	5-51 a.m.	317-319, Kent-street, City.	T. Robinson and Son	Engineers	Brick, with iron roof.	Overheating of boiler.	Imperial, £2,550.	Unknown	Bagging round boiler in shed at rear of premises destroyed by fire.	M.F.B., with buckets of water.
Tuesday, 15 March.	4-42 p.m.	4-44 p.m.	Co. and-street, North Botany.	Mon Sing	Garden	Garden	Burning rubbish.	None	None	A quantity of bushes and a portion of fencing burned in garden.	"
Thursday, 17 March.	12-35 a.m.	12-45 a.m.	Tramway Sheds, Handwick.	Tramway Department	Workshops	Wood and iron, and iron roof.	Unknown	"	"	A shed building (No. 2) about 25 x 300 feet, with contents consisting of five tram-cars, painters' materials, and sundries, burned and fallen down. Fitters' shed adjoining, with contents, severely damaged by fire, and side and roof of carpenters' shed also damaged by fire.	M.F.B., with one steam fire-engine, assisted by several Vol. Fire Companies.
Friday, 18 March	11-45 a.m.	11-48 a.m.	Moore's-road, Miller's Point, City.	Dalgety & Co.	Bonded store	Stone, with iron roof.	Light thrown down.	United, £400	United, £250	A number of chests of tea burned on ground floor of bond, and a portion of flooring damaged by fire and cutting away. Rest of contents of bond, consisting of tea, &c., slightly damaged by smoke.	M.F.U., with hydrant.
"	9-18 p.m.	9-20 p.m.	"Kilmington House," Addison-road, Marrickville.	Jas. T. Tillock	Private dwelling.	Brick, with slate roof.	Gas bracket	Norwich Union, £1,000.	Norwich Union, £2,000.	Contents of back bedroom on first floor damaged by fire and water.	Inmates, with buckets of water.
Saturday, 19 March.	10-17 p.m.	10-20 p.m.	"The Nink," Forbes-street, City.	Unoccupied	Store.	Brick, with iron roof.	Matches, children playing with.	None	Unknown	A quantity of rubbish burned in basement, and a portion of flooring boards damaged by fire and cutting away.	M.F.B., with buckets of water.
Sunday, 20 March.	2-22 p.m.	2-25 p.m.	Harris-street, City	Colonial Sugar Refining Company.	Sugar-works	"	Overheating of bags on boiler.	Several offices	Several offices	A large quantity of bags over boilers burned, and open roofs over boilers on ground-level damaged by fire and cutting away. A small portion of contents on top (7th) floor of main building also damaged by fire.	Employees and M.F.B., with three hydrants.
Tuesday, 22 March.	8-6 p.m.	8-9 p.m.	Onslow-avenue, City	Vacant ground.			Unknown	None	None	A quantity of rubbish, &c., burned	M.F.B., by beating out.
Thursday, 24 March.	4-15 a.m.	4-18 a.m.	49 and 50, Miller's-st., City.	Triggs and Merr	Foundry	Wood and iron, with iron roof.	Overheating of furnace.	None	None	A portion of staging damaged by fire on ground floor in back part of boundary.	M.F.B., with hydrant.
Saturday, 26 March.	5-35 a.m.	5-26 a.m.	304 to 308, King-street, Newtown.	C. G. Hatte	Draper, &c.	Brick, with iron roof.	Unknown	Several offices, £17,000		A quantity of rubbish burned in basement of No. 204. Stock in same department slightly damaged by fire and smoke.	M.F.B., with one hydrant.
"	2-14 p.m.	2-18 p.m.	52 to 56, Harbour-street, City.	Laycock, Son, and Nettleton.	Bedding manufacturers	"	"	None	Insured; offices unknown.	A small quantity of stock in front store on ground floor damaged by fire.	Grinnell sprinkler.
"	3-25 p.m.	3-29 p.m.	224, George-st. North, City.	George Smith	Oyster saloon	"	Kerosene stove, upsetting of.	"	Unknown	A portion of furniture and wooden partition in back room on ground floor, damaged by fire and water.	Inmates and M.F.B., with buckets of water.
"	4-45 p.m.	None recd.	Cairo-street, North Sydney.	Frank Lamby	Draper	Weatherboard, with iron roof.	Smoking tobacco	Commercial Union, £225.	"	Front room on ground floor and contents slightly damaged by fire and water.	Inmates and neighbours, with buckets of water.
"	10-45 p.m.	10-50 p.m.	155, Kent-street, City	Mrs. M. Birks, licensed victualler.	"	Brick, with iron roof.	Candle	Insured, office unknown.	Unknown	Small fire in front room on second floor	Inmates, with buckets of water.
Monday, 28 March.	5-30 p.m.	5-33 p.m.	38 to 44, Carrington-street, City.	H. S. Chipman & Co.	Offices	"	Light thrown down.	Several offices.		A small fire in basement	"
Tuesday, 29 March.	7-58 a.m.	8-1 a.m.	138, New Canterbury Road, Petersham.	Lancdon, Hopkins, and Langdon.	Timber merchants	Weatherboard, with iron roof.	Overheating of boiler	City Mutual, £1,705.		A building of two floors about 50 x 60 feet, containing machinery, timber, &c., slightly damaged by fire and heat.	M.F.B., assisted by Vol. F. Cos., with hydrant.
Wednesday, 30 March.	8-20 p.m.	8-31 p.m.	86, Windmill-street, City	James McCann	Private dwelling	Brick, with slate roof.	Candle	None	Unknown	Contents of attic room damaged by fire, ceiling under slightly damaged by water.	M.F.B., with buckets of water
Friday, 1 April.	8-30 p.m.	8-11 p.m.	Palace-street, Petersham	George Mulholland	Paddock	Paddock	Burning rubbish	None	None	A quantity of rubbish burned in paddock at rear of premises.	"
"	10-48 p.m.	10-50 p.m.	13, Darlinghurst-road, City.	Edward Perier	Private dwelling	Brick, with slate roof.	Candle	Australian Alliance, £350.	Unknown	Bed, bedding, and wearing apparel damaged by fire and water in front room on ground floor.	Inmates, with buckets of water.

\* Previous fire, 22nd July, 1896. † Previous fires—12th April, 1895; 19th December 1897. Note.—Fire in main building caused by fire from bags on boilers passing up the shoot. ‡ Previous fires, 17th December, 1890; 31st January, 1893; 23rd November, 1895.



DETAILS of Fires which have occurred within the Metropolitan District—*continued.*

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898. Sunday, 3rd April.	8-0 p.m.	None rec'd.	"Lansdowne," Darling Point Road, Woollahra	E. W. Severne .....	Private dwelling	Stone, with slate roof.	Candle .....	None .....	Unknown .....	Small fire in front bedroom on first floor .....	Inmates, with buckets of water.
Monday, 4th April.	8-5 p.m.	6-8 p.m.	4, Washington-street, City.	Edward Davies .....	"	Brick, with shingle roof.	Spark from ad- joining chim- ney .....	" .....	" .....	A portion of shingle roof damaged by fire and cutting away .....	Neighbours and M.F.B., with buckets of water.
"	6 10 p.m.	6-18 p.m.	Kent-street, near Drutt- street, City.	Vacant land.	Vacant land ..	Vacant land ..	Unknown .....	" .....	None .....	A quantity of rubbish burned .....	M.F.B., with buckets of water.
"	10-44 p.m.	10-45 p.m.	Railway Siding, Mac- donaldtown	Railway Commissioners.	Yard .....	Yard .....	Spark from loco- motive .....	" .....	" .....	A quantity of grass burned near carriage sheds .....	M.F.B. and Waterloo Vol. F. Co., with hydrant.
Tuesday, 5th April.	11 10 a.m.	11-20 a.m.	109, Paddington-street, Paddington.	Mrs. Oxenham .....	Private dwelling	Brick, with iron roof.	Matches, careless use of .....	" .....	Unknown .....	Back bedroom on first floor, with contents, severely damaged by fire and water; ceiling under damaged by water.	Inmates and M.F.B., with hand-pump.
"	7-0 p.m.	7-1 p.m.	Railway Goods Sheds, off Devonshire-street, City.	Railway Department.	Wood and iron	Wood and iron	Gas explosion ..	" .....	None .....	A portion of railway car (No. 346) damaged by fire and heat.	Employees, with hydrant.
"	7-20 p.m.	None rec'd	30, Burton-street, city	Joseph Lane .....	Private dwelling	Brick, with slate roof.	Kerosene lamp, explosion of .....	Australian Mutual, £400.		Small fire in back bedroom on ground floor .....	Inmates, with buckets of water.
Wednesday, 6 April.	10-30 a.m.	10-40 a.m.	Hudson's Wharf, Murray-st., Pyrmont.	*Briz "Vision," Captain Nelson.	In cargo (timber)	Wood .....	Unknown .....	Unknown .....	Offices unknown.	Steward's cabin and contents severely damaged by fire and water.	Crew, assisted by crew of steam-punt "Geobung," with steam-pump.
"	4-6 p.m.	4-9 p.m.	"St. Clair," Yule-street, Marrickville.	T. W. Miller .....	Private dwelling	Brick, with slate roof.	Turpentine, boil- ing over of .....	Offices unknown.		A small quantity of turpentine and beeswax burnt in kitchen.	Inmates, with sand.
Friday, 8 April.	2-40 p.m.	2-41 p.m.	412, Harris-street, City.	Jas. G. McArthur .....	"	Brick, with shingle roof.	Fireworks .....	Liverpool & Lon- don & Globe, £200.	Unknown .....	A portion of shingle roof burned; ceiling in back bedroom under damaged by water.	M.F.B., with buckets of water.
"	5-50 p.m.	5-53 p.m.	"Pendennis," Ocean- street, Woollahra.	L. H. Cohen .....	"	Brick, with slate roof.	Matches, careless use of .....	City Mutual .....	" .....	Small fire in back bedroom on first floor .....	Inmates, with buckets of water.
Saturday, 9 April.	2-45 p.m.	None rec'd	234, Clarence-street, City	Lawson Store Service Company.	Warehouse .....	Brick, with iron roof.	Light thrown down .....	Palatine, £3,000.	Unknown .....	Two bicycles in case on first floor damaged by fire .....	" "
"	7-0 p.m.	7-8 p.m.	20, Barrack-street, City	George Holst .....	"Bodega" Wine- shop.	Stone, with slate roof.	Gas fittings, defect in .....	Northern, £200	" .....	A portion of staircase leading to wine-shop in basement damaged by fire.	" "
"	7-30 a.m.	None rec'd	85, Cumberland-street, City.	*Frank Sunstron .....	Private dwelling	Brick, with iron roof.	Candle .....	None .....	None .....	Small fire in front bedroom on first floor .....	Neighbours, with buckets of water.
Tuesday, 12 April	7-5 p.m.	7-5 p.m.	Merrylands .....	*Kelly and Mc Caddan	Brick-works ..	Wood, with iron roof	Unknown .....	" .....	" .....	A quantity of bags, &c., burned in shed .....	Employees, with buckets of water.
Thursday, 14 April.	7-17 a.m.	7-20 a.m.	75, Botany-road, Waterloo.	Jas. Hinchcliffe .....	Newsagent .....	Brick, with iron roof.	Matches, children playing with .....	Mercantile Mutual, £915.		Small fire in back bedroom on first floor .....	Inmates and M.F.B., with buckets of water.
Saturday, 16 April.	8-14 p.m.	8-16 p.m.	72, Glebe-road, Glebe	Robert Haines .....	Bird-fancier .....	"	Light thrown down .....	None .....	None .....	A quantity of rubbish burned at rear of premises .....	Inmates, with buckets of water.
Sunday, 17 April.	6-34 p.m.	6-38 p.m.	Rear of 155, George- street North, City.	Stephen H. Eyre .....	Stable .....	Wood, with iron roof.	"	" .....	" .....	A quantity of straw burned in stable at rear of premises ..	Neighbours and M.F.B. with buckets of water.
"	7-45 p.m.	8-25 p.m.	Merrylands .....	*J. Bateman .....	Private dwelling	Weatherboard, with iron roof.	Unknown .....	Colonial Mutual, £150.		A cottage of two rooms and contents burned and fallen down.	Granville Volunteer Fire Co. and neighbours, with buckets of water.
Tuesday, 19 April.	12-28 a.m.	12-30 a.m.	706, King-street, City	John Noake .....	Tobacconist ..	Brick, with iron roof.	" .....	City Mutual, £600	Unknown .....	Contents of front shop on ground floor severely damaged by fire and water, side door broken open.	M.F.B., with hydrant.
"	12-17 p.m.	12-20 p.m.	Railway-road, St. Peters	W. J. Baldwin .....	Private dwelling	"	Matches, children playing with .....	Insured.		Contents of back bedroom on ground floor severely damaged by fire and water.	Neighbours, with buckets of water.
Wednesday, 20 April.	1-25 p.m.	1-30 p.m.	Devonshire-street, City	Presbyterian Cemetery.	Cemetery .....	Cemetery .....	Light thrown down .....	None .....	None .....	About 2 acres of grass and a portion of fencing burned in cemetery.	M.F.B., with hydrant.
"	6-14 p.m.	6-16 p.m.	Corner Park and Eliza- beth Streets, City.	Dixon and Sons .....	Tobacco factory, &c.	Stone and brick, with wood and iron roof.	Unknown .....	" .....	" .....	A quantity of tobacco in bulk damaged by fire and water in third floor of warehouse. Contents of three floors, offices, and basement under, consisting of a large quantity of tobacco, &c., slightly damaged by water; several doors broken open.	Grinnell sprinkler, and M.F.B., with hydrant and small hose.
Saturday, 23 April.	9-57 a.m.	10-0 a.m.	Belmore-street, Burwood.	*John S. Hennessy .....	Private dwelling	Brick, and tile roof.	Matches, children playing with .....	City Mutual .....	City Mutual .....	A portion of clothing burned .....	Inmates, with blanket.
Sunday, 24 April.	7-12 p.m.	7-14 p.m.	Marion-street, Redfern	Unoccupied .....	"	Weatherboard, with iron roof	"	None .....	None .....	Small fire in front bedroom on ground floor .....	M.F.B., with buckets of water.
Wednesday, 27 April.	10-24 a.m.	10-26 a.m.	Bennett's-road, Alex- andria.	Fisher and McCreadie ..	Manure works	Iron .....	Overheating of oven .....	" .....	" .....	Brick oven and contents, consisting of a quantity of patent manure, damaged by fire and water.	Employees, with buckets of water.
Thursday, 28 April.	2-42 a.m.	2-46 a.m.	22, Watkin-street, New- town.	David Watson .....	Private dwelling.	Brick, with slate roof.	Unknown .....	Australian Mutual, £450.		Cupboard under stairs burned out; staircase damaged by fire, and front windows broken.	M.F.B., with hydrant.
"	6-58 a.m.	7-2 a.m.	48, Moncur-street, Woollahra.	H. F. Tierney .....	"	"	Matches, children playing with .....	None .....	Unknown .....	Small fire in back room on ground floor .....	Inmates, with buckets of water.

\* Outside M.F.B. area. † Mildred Sunstron, aged 8 months, burned to death. ‡ Previous fire, 27 March, 1890. § Mrs. Hennessy, aged 34 years, severely burned about the body, and died subsequently from the effects of her injuries.

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1899. Thursday, 28 April.	1-18 p.m.	1-21 p.m.	23, Riley-street, City ..	Crawford & Co .....	Produce mer- chants.	Wood and iron, with iron over- shingle roof.	Unknown .....	Commercial Union, £400.	Alliance, £500....	Shed, and loft over, about 30 x 16 feet, with contents, con- sisting of about 6 tons of straw, 4 tons of chaff, and 2 tons of oaten hay, severely damaged by fire and water.	M.F.B., with one hydrant.
Friday, 29 April.	10-35 p.m.	10-40 p.m.	144, Station-street, Newtown.	Thomas Ross .....	Private dwelling.	Brick, with slate roof.	Light thrown down.	None .....	None .....	Front bedroom, with contents, damaged by fire, smoke, and water.	Inmates and M.F.B., with buckets of water.
Saturday, 30 April.	7-27 p.m.	7-28 p.m.	Albert-street, Marrick- ville	Alfred Pountney .....	" ..	" ..	Candle .....	" ..	Imperial, £700	Contents of bedroom on first floor damaged by fire and water.	" ..
Sunday, 1 May	6-23 p.m.	6-32 p.m.	56, York-street, City ..	Briscoe, Drysdale, & Co.	Hardware mer- chants.	Brick, with iron roof.	Unknown .....	Several offices, £36,000.	National of New Zealand, £7,000	A case of phosphorus damaged by fire on fourth floor of warehouse.	M.F.B., with sand.
Thursday, 5 May.	10-25 p.m.	10-30 p.m.	Lewellyn-st., Balmain ..	Building in course of erection.		Stone .....	" ..	None .....	None .....	A quantity of lime staked by rain, and some bagging burned on ground floor of building.	Balmain Vol. F. Co.
Friday, 6 May.	9-30 p.m.	9-35 p.m.	Darling-road, Rozelle, Balmain.	T. Morrison .....	Private dwelling..	Brick, with slate roof.	Gas bracket ..	Insured; office unknown.	Unknown .....	Bed and bedding damaged by fire in bedroom on first floor.	Inmates and neighbours, with buckets of water.
Wednesday, 11 May.	8-25 p.m.	8-32 p.m.	9, Little Devonshire St., City.	*Mary Ann Farrell ..	" ..	Brick, with iron roof.	Candle .....	None .....	None .....	Bedding and wearing apparel damaged by fire in bedroom on first floor.	M.F.B., with buckets of water.
Monday, 16 May.	7-49 p.m.	7-50 p.m.	252, Victoria street, Darlinghurst, City.	Miss M. O'Halloran ..	Boarding-house..	Brick, with slate roof.	Gas bracket ..	" ..	" ..	Front bedroom on second floor, with contents, damaged by fire and water.	Inmates and M.F.B., with buckets of water.
Tuesday, 17 May.	2-35 p.m.	2-40 p.m.	Cook-street, Rozelle, Balmain.	Thomas Long .....	Stables .....	Wood, with iron roof.	Light thrown down	" ..	" ..	A small quantity of fodder damaged by fire and water in fodder-room.	Balmain Vol. F. Co., with buckets of water.
"	12-30 p.m.	5-30 p.m.	Blaxwell-st., Granville..	James Brown .....	Boiling-down works.	" ..	Unknown .....	United, £600.	" ..	A building of one floor, used as a boiling-down works, with contents, slightly damaged by fire.	Granville Vol. F. Co., with buckets of water.
"	8-4 p.m.	8-7 p.m.	13, Elliott-st., Balmain..	†Charles Arrowell .....	Private dwelling..	Weatherboard, with iron roof	Vapour of spirit in contact with flame.	None .....	None .....	A quantity of methylated spirits, paint, &c., destroyed by fire in workshop at rear of premises.	Neighbours, with bags, &c.
Wednesday, 18 May.	10-45 a.m.	10-45 a.m.	71, George-street West, City.	W. H. Keam .....	Mercer .....	Brick, with iron roof.	Matches, children playing with.	City Mutual, £800	Unknown ..	Box under counter containing waste paper, &c., damaged by fire, and a small portion of stock damaged by water.	Inmates and M.F.B., with buckets of water.
"	11-30 a.m.	11-32 p.m.	Oxford and Newland Streets, Waverley.	James Logan .....	Produce merchant.	Weatherboard, with iron roof.	Matches, careless- ness with.	None .....	None .....	A quantity of straw in shed damaged by fire .....	M.F.B., with buckets of water.
Friday, 20 May.	3-48 a.m.	3-47 a.m.	Rear of 369½, Pitt-street, City.	Menzel & Nettlebeck ..	Bamboo furniture makers.	Brick, with iron roof.	Spark from fire ..	London Assur- ance, £400.	Unknown ..	A small quantity of stock damaged by fire in workshop on first floor.	M.F.B., with one hydrant.
Saturday, 21 May.	9-23 p.m.	9-26 p.m.	10, Cambridge-street, Petersham.	John Button .....	Private dwelling..	Brick, with shingle roof.	Fireworks .....	None .....	" ..	A small portion of shingle roof damaged by fire and cutting away.	M.F.B., with buckets of water.
Monday, 23 May.	5-25 p.m.	5-31 p.m.	16, Victoria-st., North Sydney.	Peter Ellsou .....	" ..	" ..	Spark from ad- joining chimney	" ..	" ..	A portion of shingle roof damaged by fire and cutting away.	" ..
Tuesday, 24 May.	7-5 p.m.	7-10 p.m.	Middle-street, Chippen- dale, City.	Henry Booth .....	Fishmonger .....	Brick, with iron roof.	Spark from fire ..	" ..	" ..	A shed, about 15 ft. x 5 ft., at rear of premises, used as a smoke-house; severely damaged by fire.	Inmates, with buckets of water.
"	7-12 p.m.	7-14 p.m.	34, Little Essex Street, City.	Michael Byrnes .....	Private dwelling.	Brick, and shingle roof.	Fireworks .....	" ..	Victoria, Commercial, United, Commercial Union, £200.	A small portion of shingle roof damaged by fire and cutting away.	M.F.B., with buckets of water.
"	7-20 p.m.	7-23 p.m.	7, Rose-road, Surry Hills, City.	John Lyle .....	" ..	Brick, with shingle roof.	" ..	" ..	" ..	A small portion of shingle roof damaged by fire .....	Neighbours, with buckets of water.
"	7-37 p.m.	7-40 p.m.	167, Liverpool-street, City.	Ernest Needs .....	Dancing-saloon ..	" ..	" ..	Unknown ..	Unknown ..	A small portion of shingle roof damaged by fire and cutting away.	Inmates, with buckets of water.
"	9-29 p.m.	9-29 p.m.	86, Mount-street, North Sydney.	Jeremiah Wall .....	Produce merchant.	Yard .....	" ..	None .....	None .....	A quantity of bags damaged by fire in yard .....	M.F.B., with buckets of water.
"	10-30 p.m.	None rec'd.	High-street, Penrith ..	Frederick Vine .....	Produce store ..	Weatherboard, with shingle roof.	Smoking tobacco.	" ..	" ..	A building of five rooms, about 30 ft. x 30 ft., containing a quantity of corn, &c., burned out and fallen down. A slab building about 50 ft. x 30 ft., containing machinery, &c., burned and fallen down. Stable adjoining, containing harness, &c., burned out and fallen down.	Police and neighbours, with hydrant.
Wednesday, 25 May.	11-40 a.m.	11-48 a.m.	Parramatta-road, Con- cord.	Rev. McByrne .....	Private dwelling..	Weatherboard, and iron roof.	Fireworks .....	" ..	" ..	Bush-house burned in grounds at rear of dwelling .....	Inmates, with buckets of water.
"	6-42 p.m.	6-46 p.m.	Nelson-street, Annan- dale.	Unoccupied .....	" ..	" ..	Unknown .....	" ..	" ..	A cottage of four rooms burned and fallen down .....	M.F.B., assisted by Vol. Fire Co's, with hydrant.
Thursday, 26 May.	11-45 p.m.	11-57 p.m.	Balmoral-avenue, Canterbury.	" ..	" ..	Brick and weatherboard, with iron roof	" ..	" ..	City Mutual, £150	A cottage of four rooms burned, and partly fallen down ..	Ashfield Vol. Fire Co., and M.F.B., with one hydrant.
"	" ..	" ..	" ..	I. C. Tanner .....	Cordial factory ..	Weatherboard, with iron roof.	" ..	" ..	None .....	Side of building severely damaged by fire .....	" ..
Wednesday, 1 June.	8-37 p.m.	8-39 p.m.	Great North Road, Five Dock	M. Croker .....	Paddock .....	Paddock .....	Burning rubbish ..	" ..	" ..	A quantity of rubbish burned .....	Burwood Vol. Fire Co., with buckets of water.
Thursday, 2 June.	12-15 a.m.	12-20 a.m.	852 and 854, Sussex- street, City.	W. H. Hill & Co. ....	Paper merchants	Brick, with iron roof.	Unknown .....	" ..	Insured; offices unknown.	Stock on ground and first floors severely damaged by fire and water, flooring and joisting damaged by fire.	M.F.B., with two hydrants.

\* Mary Farrell, aged 77 years, burned about the body and arms; taken to St. Vincent's Hospital for treatment; since died. † Charles Arrowell, the occupant, burned about the hands and face; treated at home by Dr. Kelly.  
‡ W. H. Keam, the occupant, burned about the hands and face; attended to at home.

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1893. Thursday, 2 June.	6 0 a.m.	6 5 a.m.	Rose Chambers, 60, Castlereagh-st., City	Trustees of Sydney Cricknet Ground. S.H. Fairland, Secretary.	Offices .....	Brick, with slate roof.	Escape of gas....	None.....	Merc. Mutual, £6,000.	Contents of office on ground floor slightly damaged by fire and explosion.	Inmates.
Friday, 3 June.	7 55 p.m.	8 0 p.m.	Bexley, Rockdale .....		Paddock .....	Paddock .....	Bush-fire .....	" .....	None.....	A quantity of bushes, &c., burned.....	Rockdale Vol. F. Co., by beating out
Saturday, 4 June.	1 24 p.m.	1 27 p.m.	109, Wilson-st., Redfern	T. Colbert .....	Private dwelling..	Brick, and slate roof.	Matches, children playing with.	" .....	" .....	Bedding and wearing apparel damaged by fire and water in back bedroom on first floor.	Inmates, with buckets of water.
Monday, 6 June.	8 55 p.m.	9 0 p.m.	Nobbs & Bourke Streets, Surry Hills, City.		Building in course of erection.	Brick .....	Lime slaked by rain.	" .....	" .....	A tarpaulin burned, and a number of bags containing lime slaked by rain.	M.F.B., with sand.
Wednesday, 8 June.	11 38 p.m.	11 39 p.m.	Waddell-road, Marrick- ville.	Ellon Gully.....	Infant school....	Brick, with slate roof.	Light thrown down.	" .....	" .....	A quantity of bedding in back room on ground floor damaged by fire and water; flooring slightly damaged by fire.	Police, with buckets of water.
Friday, 10 June.	10 10 a.m.	10 15 a.m.	George-street, Burwood	George Hyams .....	Private dwelling..	Brick, and iron roof.	Matches, children playing with.	" .....	Unknown .....	A small portion of bedding, &c., damaged by fire and water in front bedroom on first floor.	Inmates and neighbours, with buckets of water.
Saturday, 11 June.	3 60 a.m.	3 65 a.m.	Taley-street, Woolloo- mooloo, City.	James A. Quin .....	Licensed victualler.	Brick, with iron roof.	Hot ashes .....	Atlas, £2,000 .....	" .....	About 3 x 3 feet of flooring boards damaged by fire on second floor.	Inmates, with buckets of water.
Sunday, 12 June.	5 30 a.m.	5 33 a.m.	412, George street, City.	*Miss E. Hardy .....	Conffectioner .....	" .....	Unknown .....	Australian .....	United, £600 .....	Basement and contents nearly burned out, and stock in shop slightly damaged by smoke.	M.F.B., with two hydrants.
Monday, 13 June.	7 40 p.m.	7 35 p.m.	40, Raper-street, Newtown.	Thos. Poulter.....	Private dwelling..	" .....	Kerosene lamp, explosion of	None .....	Unknown .....	Back bedroom on ground floor and contents damaged by fire and water.	M.F.B., with buckets of water.
Thursday, 16 June.	11 48 p.m.	11 52 p.m.	Baill street, Bankstown	H. Docent .....	" .....	Weatherboard, and iron roof.	Unknown .....	- Caledonian, £600.	" .....	A dwelling of twelve rooms; five rooms and contents severely damaged by fire; rest of building and contents slightly damaged by water.	Sydney Meat Co. and Rock- wood Vol. F. Cos., with buckets of water.
Friday, 17 June.	1 30 a.m.	None rec'd.	Wandsworth-road, Parramatta.	George Henry Buden ..	" .....	" .....	" .....	" .....	" .....	About 1 foot of flooring boards and about 8 inches of joists slightly charred under floor of back bedroom on ground floor.	Inmates, with buckets of water.
Sunday, 19 June.	2 30 a.m.	2 34 a.m.	Milson's Point, North Sydney.	North Shore Steam Ferry Co.	Horse ferry-boat "Benelon."	Wood .....	Unknown .....	Norwich Union, £1,250; North British, £1,250—£2,500	" .....	Engine-room and contents very severely damaged by fire ..	M.F.B., with one hydrant.
Monday, 20 June	3 18 p.m.	3 22 p.m.	442, George-street, City	*Miss E. Hardy .....	Conffectioner .....	Brick, with iron roof.	Gas explosion ..	Australian .....	United, £600 .....	A small portion of shop fittings damaged by explosion ..	Inmates.
"	11 24 p.m.	11 26 p.m.	140, Sussex-street, City	S.D. Picone .....	Fruiterer .....	Brick, with slate roof.	Candle .....	None.....	None .....	Bed and bedding in front room on first floor damaged by fire and water.	Inmates, with buckets of water.
Tuesday, 21 June.	1 7 p.m.	1 10 p.m.	313, George-street, City	William Chorley .....	Tailor .....	" .....	Light thrown down.	Alliance, £750; New Zealand, £750; Standard, £750—£2,250	Victoria .....	Pattern-room on ground floor and contents severely damaged by fire and water; contents of work room over damaged by smoke.	M.F.B., with one hydrant.
Thursday, 23 June.	8 22 a.m.	8 24 a.m.	670, Crown-street, City	Mrs. Harkins .....	Fruiterer .....	Brick, with iron roof.	Matches, children playing with.	None.....	Unknown .....	Bed and bedding in front room on first floor damaged by fire and water.	M.F.B., with buckets of water.
Saturday, 26 June.	2 35 a.m.	2 43 a.m.	Bay-road, North Sydney	James Gordon .....	Laundry .....	Weatherboard, and iron roof.	Unknown .....	" .....	None.....	A building of two floors, about 70 x 25 feet, used as a laundry; top floor and contents burned out and roof off; rest of building and contents damaged by fire and water.	M.F.B., with one hydrant.
"	6 15 p.m.	6 18 p.m.	Ruglan and Phillip Streets, Alexandria.	Elizabeth Lafiara ..	"Stepney Hotel."	Brick, with iron roof.	Candle .....	Australian .....	Unknown .....	Contents of front room on first floor damaged by fire and water.	Inmates and M.F.B., with buckets of water.
Sunday, 26 June.	10 7 a.m.	10 10 a.m.	8-10, Flinders-st., City..	T. Moore and Sons ..	Coachbuilders ..	Wood, with iron roof.	Fire, children playing with.	Australian .....	Australian Mutual, £2,000.	A small quantity of coachbuilders' material in workshop at rear of premises damaged by fire.	Paddington No. 2 Vol. F. Co., with one hydrant.
Monday, 27 June.	8 50 p.m.	8 55 p.m.	12, Ferris-street, Annan- dale.	John Brown .....	Private dwelling..	Weatherboard, with iron roof.	Unknown .....	None.....	Sun, £150 .....	A cottage of three rooms and contents burned out and partly fallen down; about 20 feet of fencing burned.	M.F.B., assisted by Vol. F. Cos., with one hydrant.
Friday, 28 June.	2 50 p.m.	2 54 p.m.	Mill street, Hurstville..	Charles Munford ..	" .....	Brick, with slate roof.	Rats at walshes.	" .....	Mercantile Mutual, 18,000.	Lumber and bathroom at rear of dwelling, with contents, damaged by fire and water.	Rockdale Vol. F. Co., with private hose.
Saturday, 2 July.	2 25 a.m.	2 40 a.m.	" .....	Thos. Rate .....	Bootmaker .....	Weatherboard, with iron roof.	Spark from fire ..	Australian Mutual, £250.	" .....	A weatherboard building used as a shop and sitting-room, with contents, burned and fallen down.	Kogarah, Rockdale, and Hurstville Vol. F. Cos., with one hydrant.
"	8 0 p.m.	None rec'd.	135, Liverpool-road, Ashfield.		Unoccupied Premises.	" .....	Gas bracket .....	None.....	None.....	A portion of lining boards of ceiling of shop damaged by fire.	Police, with buckets of water.
Sunday, 3 July.	6 20 p.m.	6 22 p.m.	John-street, Woollahra..	Lawrence Foley .....	"Prince of Wales Hotel."	Brick, with iron roof.	Smoking tobacco.	Mercantile Mutual.	" .....	A quantity of straw and stable fittings damaged by fire in stable at rear of premises.	Inmates, with buckets of water.
Wednesday, 6 July.	7 5 a.m.	7 9 a.m.	Birkenhead-road, Drum- moyne.	George Piper .....	Conffectioner ..	Weatherboard, and iron roof	Candle .....	None.....	None.....	Front shop and contents slightly damaged by fire and water	" .."
"	10 10 p.m.	10 13 p.m.	Bridge-street, City .....		Department of Public Instruction (W. Jessop, caretaker).	Yard .....	Hot ashes .....	" .....	" .....	Box containing rubbish burned in yard at rear of premises	" .."
Monday, 11 July.	8 40 a.m.	8 43 a.m.	50, Liverpool st., City	R. Anderson .....	Private dwelling..	Brick, with shingle roof.	Spark from chimney.	" .....	Unknown .....	A small portion of shingle roof burned .....	M.F.B., with buckets of water.
"	12 40 p.m.	12 42 p.m.	Pitt and Gipps Streets, City.	Australian Gaslight Co.	Gasworks .....	Weatherboard, with iron roof	Light thrown down.	Unknown .....	" .....	A small portion of cocoon matting and about 4 x 4 ft. of flooring damaged by fire in gaiter-room.	Employees, with buckets of water.

\* Previous fire, 13th December, 1893. † Outside M.F.B. area. ‡ Arthur F. Switzer slightly burned about the hands. Previous fires, 13th December, 1893; 12th June, 1898.  
§ Mrs. Picone, aged 30 years, slightly burned about the hands; attended to at home.

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1893. Thursday, 14 July.	7 10 p.m.	7 15 p.m.	4, Short-street, Ashfield	William Prior.....	Private dwelling..	Brick, with iron roof.	Matches, careless use of.	None.....	Mercantile Mutual, £200.	A quantity of paper burned in back bedroom on ground floor.	Inmates and neighbours, with buckets of water.
Saturday, 16 July.	12 35 a.m.	12 40 a.m.	279, Castlereagh-street, City.	Mrs. Harris.....	"	Brick, with shingle roof.	Smoking tobacco.	"	Unknown	Bed and bedding severely damaged by fire in front room on ground floor.	Inmates and M.F.B., with buckets of water.
"	10 30 p.m.	10 37 p.m.	23, Brown-street, Campbelldown.	J. Madden.....	Bottle factory	Wood, and iron roof.	Spark from furnace.	"	None	A small quantity of timber used for making cases damaged by fire.	Employees and M.F.B., with buckets of water.
Sunday, 17 July.	4 59 p.m.	5 1 p.m.	46 to 62, Young-street, City.	*Winchcombe, Carson, & Co.	Woolbrokers...	Brick, with iron roof.	Spontaneous ignition.	Several offices £9,500.	"	A number of bales of hide fleshings damaged by fire on ground floor; side door broken open.	M.F.B., with one hydrant.
Tuesday, 19 July.	5 20 p.m.	5 23 p.m.	Rocky Point Road, Rockdale.	Arthur Morse.....	Private dwelling.	"	Candle	City Mutual, £400.	"	Small fire in back bedroom on ground floor	Rockdale Vol. F. Co. with buckets of water.
Friday, 22 July.	12 54 a.m.	12 53 a.m.	376, George street, City	H. Woolf & Co.....	Tobaccoists	"	Gas-stove	Aust. Mut, £250; Atlas, £250; Imperial, £750	Several offices, £1,800.	Shop and contents severely damaged by fire, heat, and water.	M.F.B., with hydrant.
"	4 45 a.m.	4 48 a.m.	Alma-street, Pyrmont..	*Fanders & Co.....	Furniture depôt.	"	Unknown	Merc. Mut, £300; Atlas, £450	Comm. Union, £2,400.	A large quantity of furniture very severely damaged by fire on first floor of store.	M.F.B., with one hydrant
"	9 54 p.m.	9 58 p.m.	143, Macquarie-street North, City.	Miss Stuart.....	Boarding-house	Brick, and slate roof.	Candle	Phoenix, Manchester, —£950.	Unknown	Small fire in back bedroom on ground floor	Inmates, with buckets of water.
Sunday, 24 July.	8 0 p.m.	8 9 p.m.	42, Goodsell street, Newtown	Mrs. Russell.....	Private dwelling.	Brick, with iron roof.	Light thrown down	None	"	Back bedroom on first floor and contents severely damaged by fire and water.	M.F.B., with one hydrant.
Monday, 25 July.	10 5 a.m.	10 7 a.m.	13, Globe-street, Glebe..	John Curry.....	Butcher	Brick, with iron and shingle roof.	Spark from chimney	"	Alliance, £200.	A portion of shingle roof of kitchen burned	Globe Vol. F. Co and M.F.B., with buckets of water.
"	6 50 p.m.	6 55 p.m.	100, Glenmore road, Paddington.	Mrs. Esther Rose.....	Private dwelling	Brick, with slate roof.	Candle	"	Unknown	A small quantity of kapok destroyed by fire in back room on ground floor.	Inmates, with buckets of water.
Tuesday, 26 July.	4 5 a.m.	4 5 a.m.	14, Merton-street, Petersham.	Sydney E. Pile.....	"	"	Rats at matches..	Comm. Union, £200	Comm. Union, £300.	Cupboard under stairs and contents damaged by fire and water	"
"	12 54 p.m.	12 57 p.m.	78, Bullnaming-street, Redfern.	Thos. Padley.....	"	"	Flue, defect in.	None	Unknown	Small fire in front bedroom on first floor	"
Wednesday, 27 July.	7 14 p.m.	7 17 p.m.	2, Underwood-street, Paddington.	Edward Warren.....	"	Brick, with iron roof	Candle	"	"	Small fire in front bedroom on second floor	"
Friday, 29 July.	12 15 p.m.	12 20 p.m.	Good-street, Granville..	George Patten.....	Grocer	Wood, with iron roof.	Hot ashes	"	None	Side of shed slightly damaged by fire	Granville Vol. F. Co., with hydrant.
"	2 50 p.m.	2 55 p.m.	Seibourne-street, Burwood	Edward Bush.....	Private dwelling	Brick, and shingle roof	Children playing with matches.	Merc. Mut., £200	Unknown	Small fire in bedroom on second floor	Burwood Vol. F. Co., with buckets of water.
Saturday, 30 July.	6 18 p.m.	6 22 p.m.	George-street, Parramatta.	Isaac Waugh.....	"	Stone, with slate roof.	Flue, defect in	"	£350	Back bedroom on first floor and contents burned out, and roof off; roof over bathroom damaged by fire; ceilings and contents in several rooms damaged by water.	Parramatta Nos. 1 and 2 Vol. F. Cos., with two hydrants.
"	9 55 p.m.	9 55 p.m.	Durham and Frederick Streets, Petersham.	William Ewart.....	"	Brick, and iron roof.	Candle	None	None	Window curtain burned in kitchen on ground floor	M.F.B., with buckets of water.
Monday, 1 August.	7 0 p.m.	7 2 p.m.	263, Kent-street, City..	Eaton, Grant, & Co..	Wine merchants..	Brick, with slate roof.	Overheat of flue..	Sun, £3,000	Unknown	Window frame in basement damaged by fire and cutting away door leading to basement broken open.	"
"	7 20 p.m.	7 23 p.m.	21, Chapman-street, City.	Arthur McMahon.....	Private dwelling..	Brick, with iron roof.	Candle	None	"	Small fire in front bedroom on first floor	Inmates, with buckets of water.
Tuesday, 2 August.	11 38 a.m.	11 43 a.m.	Wentworth-road, Burwood.	H. C. Grogan.....	"	Wood, with iron roof.	Hot ashes	"	City Mutual, £385	A shed building, about 25 x 10 ft., at rear of dwelling, used as a storeroom, &c., burned out and partly fallen down.	Burwood Vol. F. Co., assisted by M.F.B., with one hydrant.
Wednesday, 3 August.	1 8 a.m.	1 13 a.m.	Taylor-street, Paddington.	C. B. Vintiner.....	Furniture depôt..	Wood and iron, with iron roof.	Unknown	Northern, £500; Palatine, £400.	Northern, £150	A building of two floors, about 25 x 60 ft., with contents, burned out and partly fallen down.	M.F.B., assisted by Vol. F. Cos., with three hydrants.
"	"	"	154, Hargrave-street, Paddington.	H. H. Stoddart.....	Grocer	Brick, with iron roof.	"	Palatine, £100.	Northern, £500	Sitting-room on ground floor and contents severely damaged by fire and water.	"
"	"	"	152, Hargrave-street, Paddington.	Mrs. Baker.....	Private dwelling..	Brick, and slate roof.	"	Queensland Mutual, £150.	Merc. Mutual, £750.	Back bedroom on first floor and contents damaged by fire and water; contents under slightly damaged by water.	"
"	"	"	150, Hargrave-street, Paddington.	Mrs. Bagley.....	"	"	"	None	"	Back verandah severely damaged by fire	"
Thursday, 4 August.	6 0 a.m.	None rec'd	68, Beattie-st., Balmain	James Lelliott.....	Hairdresser and tobacconist.	Brick, with shingle roof.	Unknown	Colonial Mutual, £100.	Unknown	Counter and show-case in shop, with contents, slightly damaged by fire and water.	Inmates, with buckets of water.
"	6 55 p.m.	7 1 p.m.	18, Market-street, City	Alexander Const.....	Boarding-house..	Brick, with slate roof.	Light thrown down.	None	None	Small fire in back bedroom on first floor	"
Sunday, 7 August.	9 0 a.m.	9 3 a.m.	146, John-st., Pyrmont..	Thos. Love.....	Private dwelling..	Brick, with iron and shingle roof.	Spark from chimney.	"	Unknown	A portion of shingle roof damaged by fire and cutting away	Inmates and M.F.B., with buckets of water.

\* Previous fire, 8th November, 1837.

† Previous fire, 9th July, 1835.

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898, Sunday, 7 August.	4:45 p.m.	4:48 p.m.	104, Regent-st., New-town.	Mrs. Clark	Grocer	Brick, and iron roof.	Defective hearth.	None	Liverpool, and London and Globe, £500.	About 4 x 2 ft. of ceiling in shop damaged by fire and cutting away, and a portion of stock slightly damaged by smoke.	M.F.B., with buckets of water.
Monday, 8 August.	8:25 p.m.	8:28 p.m.	Little Arthur Street, North Sydney.	*Wm. Heydon	Workshop	Weatherboard, with iron roof.	Incondufiansm	New Zealand, £100; Col. Mut., £50.	North British and Mercantile, £100.	Carpenters' workshop, about 50 x 20 ft., and contents severely damaged by fire.	M.F.B., with one hydrant.
"	9:40 p.m.	9:45 p.m.	93, Short-st., Balmain	James Johnstone	Private dwelling.	Brick, with iron roof.	Gas-pipe, defect in	None	Unknown	About 6 x 2 ft. of ceiling in kitchen damaged by fire and water.	Balmain Vol. F. Co., with one hydrant.
Tuesday, 9 August.	1:43 a.m.	1:48 a.m.	Meeks-rd., Marrickville	†Daniel Maroney	"	Weatherboard, and iron roof	Unknown	"	South British, £150.	Garden vine and a small portion of fencing damaged by fire	Inmates and neighbours, with buckets of water.
"	2:45 a.m.	3:0 a.m.	Rinkety-street, off Kent-road, North Botany.	Unoccupied	"	"	"	"	Mercantile Mutual, £175.	A weatherboard cottage of four rooms burned and fallen down.	North Botany, with one hydrant, assisted by M.F.B.
Wednesday, 10 August.	7:44 p.m.	7:44 p.m.	Barnstaple Manor, Iron Cove Rd., Five Dock	Brent E. Rodd	Stable	"	"	"	Imperial, £60	Stable and coach-house, about 30 x 30 ft., with contents, consisting of phaeton, carriage and sulky, harness, and a small quantity of fodder, burned out and fallen down.	Ashfield and Burwood Vol. F. Cos., with manual engine.
Saturday, 18 August.	9:10 p.m.	9:14 p.m.	691, George-street, City	James Furlong, licensed victualler.	"Haymarket Hotel."	Brick, with iron roof.	Matches, children playing with.	Unknown	Unknown	Bed and bedding damaged by fire in front room on first floor.	Inmates, with buckets of water.
Sunday, 14 August.	5:57 p.m.	6:2 p.m.	276, Bourke-street, City	Leon Cheshire	Private dwelling.	"	Candle	None	City Mutual	Small fire in back bedroom on first floor	"
"	9:17 p.m.	9:19 p.m.	6, George-st., West, City	D. J. Kelleher	Tailor	"	"	Manchester, £30.	Aust. Mutual, £700	A small quantity of tailors' cuttings damaged by fire in shop.	Police and M.F.B., with buckets of water.
Wednesday, 17 August.	2:15 a.m.	2:47 a.m.	Ivanhoe-street, Marrickville.	John Hensch	Private dwelling.	Weatherboard, with iron roof.	Unknown	Atlas, £500	Unknown	A cottage of six rooms, kitchen, and out-houses burned out and fallen down.	M.F.B., with one hydrant.
"	"	"	"	Richard Parsons	"	Brick, with slate roof.	"	None	Merc. Mutual, £200.	Three windows burned out and ceiling in two rooms slightly damaged by heat.	"
"	12:15 p.m.	12:18 p.m.	"The Octagon," Darling Point Rd., Woolahra	Archibald Liversidge	Garden	Garden	Burning rubbish.	"	None	A quantity of rubbish burned in garden	Burned itself out.
"	8:24 p.m.	8:25 p.m.	Queen's Wharf, Circular Quay, City.	N.S.W. Government	Yard	Yard	Tar boiling over.	"	"	About 15 gallons of tar burned; shed over furnace and a quantity of timber damaged by fire	M.F.B. and employees, with sand.
Thursday, 18 August.	12:0 a.m.	12:4 a.m.	553, George-street, City	John Hunter and Son.	Grindery merchants.	Brick, with iron roof.	Unknown	Commercial Union, £350.	Liverpool and London and Globe, £4,390 on two buildings.	A quantity of stock damaged by fire and water in shop, rest of contents in shop slightly damaged by heat and water.	M.F.B., with one hydrant.
"	1:0 p.m.	News rep't.	9, Bank-street, Chippendale, City.	†Thomas Charles Smith, licensed victualler.	"College Green Hotel."	Brick, and iron roof.	"	None	Unknown	Child's cot and bedding burned, and a portion of skating board damaged by fire in front room on first floor.	Inmates, with buckets of water.
Friday, 19 August.	12:30 a.m.	None rec'd.	15, Botany-street, Redfern.	Robert Sharp	Private dwelling.	"	Candle	"	Comm. Union, £300.	Small fire in back bedroom on first floor	"
"	4:35 p.m.	4:39 p.m.	2, Dwyer-street, City	William Yen	Fishmonger	Weatherboard, with iron roof.	Spark from fire-place.	"	Unknown	Smoke-house at rear of premises damaged by fire	M.F.B., with tozer-pump.
"	6:2 p.m.	6:5 p.m.	88, Stanley-street, City	J S Whittall	Private dwelling.	Brick, with iron roof.	Candle	"	"	Small fire in back bedroom on ground floor	Inmates and M.F.B., with buckets of water.
Sunday, 21 August.	1:50 a.m.	1:55 a.m.	Botany-road, Waterloo	Sydney Wool-scouring Company. P. W. Hughes, Managing Director.	Wool-scouring works.	Brick and wood, with iron roof.	Unknown	Liverpool and London and Globe, £7,000.	Imperial	Wool-drying room of four floors, about 60 x 25 ft., and wool-packing room of one floor, about 90 x 30 ft., and contents, consisting of about 160 bales of wool and a quantity of machinery, burned out and partly fallen down; office burned and fallen down.	M.F.B., with two steam fire-engines and three hydrants, assisted by Vol. F. Cos.
"	6:0 a.m.	6:2 a.m.	671, George-street, City	George H. Boatwright	Restaurant	Brick, with iron roof.	"	Aust. Mutual, £300.	Aust. Mutual, £1,000.	A shop and dwelling of eight rooms; five rooms and contents burned out, and part of roof off; rest of building and contents damaged by heat, smoke, and water.	M.F.B., with two hydrants.
"	"	"	609, " "	Charles Petty	Hairdresser	"	"	Colonial Mutual, £150.	"	Back window on second floor damaged by fire	"
"	"	"	673, " "	Thomas M. Alcock	Jeweller	"	"	Royal Imperial, £200	Unknown	Back window on second floor damaged by fire	"
Monday, 22 August.	6:40 a.m.	6:45 a.m.	2, Spring-st., Balmain	James Peters	Private dwelling.	Brick, with iron and shingle roof.	Defective flue	"	"	Roof of washhouse, bathroom, and kitchen damaged by fire and cutting away.	Balmain Vol. F. Co., with buckets of water.
"	10:55 p.m.	11:1 p.m.	26, Chandos-st., North Sydney.	Unoccupied	"	"	Unknown	None	London and Lancashire, £350.	A cottage of seven rooms burned, and roof fallen in	M.F.B., with one hydrant.
Tuesday, 23 August.	5:45 p.m.	5:48 p.m.	325, George-street, City	The French Musical Instrument Depôt. Fernand Aengenhever, Manager.	"	Brick, with iron roof.	Kerosene lamp	Manchester, £1,250.	"	Front room on second floor and contents slightly damaged by fire and water.	Inmates and M.F.B., with buckets of water.
Tuesday, 30 August.	6:12 p.m.	5:16 p.m.	75, Harbour-street, City	Peter McGonigal	Butcher	Brick, with iron over shingle roof.	Flue, defect in	None	Unknown	A small portion of shingle roof damaged by fire and cutting away.	M.F.B., with buckets of water.

\* An inquest was held on the 10th inst., and adjourned to the 16th inst., when a verdict was returned that "The premises were wilfully set on fire by some person or persons unknown" † Two separate fires: an inquest was held on the 10th inst., and adjourned to the 12th inst., at which an open verdict was returned ‡ Two separate fires; an inquest was held on the 10th inst., when a verdict of arson was returned against D. J. Kelleher. § Henry Martin Smith, aged 1 year and 8 months, severely burned about the body; died subsequently at Prince Alfred Hospital.

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898. Wednesday, 7 Sept.	3-25 p.m.	3-27 p.m.	43 to 49, Matthew-st., Darling Harbour, City.	B. Richards and Son	Butchers .....	Wood and iron, with iron roof.	Light thrown down.	None .....	None .....	A quantity of hay and a portion of woodwork of stable damaged by fire.	M.F.B., with one hydrant.
Thursday, 8 Sept.	4-50 p.m.	4-54 p.m.	Stephens Road, North Botany.	Archibald Booth	School .....	Brick, with iron roof.	Fireworks .....	" .....	" .....	Cloak-room and contents slightly damaged by fire .....	Inmates, with buckets of water.
"	4-53 p.m.	4-58 p.m.	Redmond-street, Leichhardt.	William Bowmaker	Stable .....	Weatherboard, with iron roof.	Matches, children playing with.	" .....	" .....	A two stall stable, containing a small quantity of fodder, burned out and fallen down.	M.F.B. and Vol. F. Cos., with one hydrant.
"	6-23 p.m.	6-31 p.m.	Chandos-street, Ashfield.	Thomas Davis	Private dwelling..	" .....	Unknown .....	" .....	" .....	Bush-house in garden severely damaged by fire .....	Ashfield Vol. F. Co., with garden hose.
Sunday, 11 Sept.	10-30 a.m.	10-33 a.m.	124, Bathurst-st., City.	*Samuel Barnett	Dealer .....	Brick, with slate roof.	Fat boiling over..	" .....	Unknown .....	A quantity of fat burned in kitchen .....	M.F.B.
Monday, 12 Sept.	7-23 p.m.	7-25 p.m.	88, New Canterbury Road, Petersham.	Matthew Keogh	Ironmonger .....	Weatherboard, with iron roof.	Matches, careless use of.	Colonial Mutual, £300.	Merc. Mutual, £700.	Shed at rear of premises, with contents, consisting of oils, &c., damaged by fire and water.	Inmates and M.F.B., with buckets of water.
"	10-57 p.m.	11-3 p.m.	74, Botany-street, Waterloo.	William Onley	Fishmonger .....	Brick, with iron roof.	Fire, careless use of.	None .....	None .....	Packing-case used for smoking fish destroyed by fire .....	Inmates with buckets of water.
Tuesday, 13 Sept.	2-25 a.m.	2-37 a.m.	Birley-street, Marrickville.	Unoccupied .....	Private dwelling	Weatherboard, and iron roof.	Unknown .....	" .....	Com. Union, £75.	A cottage of three rooms and kitchen burned and fallen down.	M.F.B., with hydrant.
Wednesday, 14 Sept.	12-2 a.m.	12-8 a.m.	89, Goulburn-street, City.	W. E. Dunning	Tinsmith .....	Brick, with iron roof.	Light thrown down.	" .....	None .....	A quantity of rubbish burned, and a small portion of wooden fence damaged by fire at rear of premises.	Neighbours, with buckets of water.
"	1-45 a.m.	2-10 a.m.	Off Blue's Point Road, North Sydney.	Robert Stevens	Boatshed .....	Weatherboard, with iron roof	Unknown .....	New Zealand, £675.	" .....	A building of two floors, about 60 x 80 ft., with contents, consisting of a number of boats, sails, tools, &c., burned and fallen down.	M.F.B., with hydrant.
"	"	"	"	John Warren	" .....	" .....	" .....	None .....	" .....	A shed about 25 x 12 ft., with contents, consisting of boats, sails, &c., burned and fallen down.	"
"	"	"	"	Charles Fisher	" .....	" .....	" .....	North Queensland, £500.	" .....	A quantity of boat-moulds burned, boat slip, a quantity of timber and three boats severely damaged by fire.	"
"	6-50 p.m.	6-55 p.m.	Military Road, Waverley	Estate of Sir Daniel Cooper.	Vacant land .....	" .....	Light thrown down.	None .....	" .....	A large area of bush destroyed by fire .....	Waverley V. F. Co., by beating out.
"	6-55 p.m.	7-0 p.m.	Treston Division, Sir Daniel Cooper Estate, Old South Head Road, Woollahra.	" .....	" .....	Vacant land ..	" .....	" .....	" .....	About two acres of bush destroyed by fire .....	M.F.B. and V. F. Co.'s, by beating out.
Saturday, 17 Sept.	9-41 a.m.	9-42 a.m.	311, King-street, New town.	Mick Simmons & Son	Tobacconist .....	Brick, with iron roof.	Matches, children playing with.	Unknown .....	Unknown .....	A portion of fencing burned at rear of premises .....	Inmates and M.F.B., with buckets of water.
"	5-56 p.m.	5-58 p.m.	Corner George and Park Streets, City.	Benjamin Howe	Licensed victualer, "Carter's Hotel."	" .....	Matches, careless use of.	Aust. Mutual, £700.	" .....	A quantity of straw burned in shed at rear of premises ..	" ..
Sunday, 18 Sept.	2-53 a.m.	2-55 a.m.	Off Hereford street, Globe.	Michael Hegarty	Paddock .....	" .....	Burning rubbish..	None .....	None .....	A quantity of rubbish burned in paddock .....	Glebe V. F. Co.
"	2-18 p.m.	2-20 p.m.	125, Pitt-street, City	F. W. Wilson	Licensed victualer, "Angel Hotel."	" .....	Spark from chimney.	" .....	" .....	A small portion of flooring boards on roof used as a drying-ground damaged by fire and cutting away.	M.F.B., with buckets of water.
Monday, 19 Sept.	12-30 a.m.	12-31 a.m.	Off Darling-street, Balmain.	Mort's Dock Engineering Co.	Workshops, Jubilee Dock.	Wood and iron, with iron roof.	Unknown .....	" .....	" .....	Workshop of one floor, about 24 x 30 ft., and contents, consisting of two boats, tools, &c., burned and fallen down.	Balmain V. F. Co., assisted by M.F.B., with two hydrants.
"	"	"	"	George Thompson	Private dwelling..	Weatherboard, and iron roof	" .....	" .....	" .....	Cottage of six rooms and contents burned and fallen down..	" ..
"	7-2 p.m.	7-6 p.m.	242, Oxford-street, Paddington.	C. J. Jones	" .....	Brick, with iron roof.	Light thrown down.	" .....	" .....	Contents of front room on first floor slightly damaged by fire	Inmates, with buckets of water.
Wednesday, 21 Sept.	10-0 a.m.	10-17 a.m.	Ethel-street, Carlton, Hurstville.	Joseph Wheatley	" .....	Weatherboard, with iron roof	Unknown .....	Mercantile Mutual, £300.	" .....	A cottage of five rooms, with contents, burned and fallen down.	Hurstville, Rockdale, and Kogarah V. F. Co.'s, with two hydrants.
"	4-30 p.m.	5-0 p.m.	Bradley's Head, North Sydney.	N.S.W. Government	Military reserve ..	" .....	Light thrown down	None .....	None .....	About two acres of bush and grass burned .....	M.F.B. and citizens, by beating out.
"	6-38 p.m.	6-41 p.m.	Lavender Bay, North Sydney.	Municipal Council, North Sydney.	Rubbish tip .....	Rubbish tip ..	Matches, children playing with.	" .....	" .....	A quantity of rubbish burned .....	M.F.B., with one hydrant.
"	8-17 p.m.	8-20 p.m.	Kent-street, near Market-street, City.	Vacant ground .....	Vacant ground ..	Vacant land ..	Light thrown down.	" .....	" .....	" ..	M.F.B., with buckets of water.
"	9-54 p.m.	9-54 p.m.	Broughton-street, Concord.	C. Zoeller	Stables .....	Weatherboard, with iron roof.	Unknown .....	" .....	London and Lancashire, £30.	Stable and fodder-room, about 40 x 16 ft., with contents, consisting of harness and a large quantity of fodder very severely damaged by fire and water, three horses burned to death.	Burwood and Ashfield V. F. Co.'s, with two hydrants, assisted by M.F.B.
Thursday, 22 Sept.	8-55 a.m.	9-5 a.m.	New South Head Road, Vaucluse.	Clairvaux Estate .....	Vacant land .....	Vacant land ..	Light thrown down.	" .....	None .....	About an acre of bush and grass burned .....	M.F.B. and neighbours by beating out.
"	9-42 a.m.	9-45 a.m.	Castlereagh-street, City	N.S.W. Govt. (Melville Marrick, Head Master.)	Public School ..	Weatherboard, with iron roof	Children playing with matches.	" .....	" .....	A quantity of rubbish burned under floor of schoolroom ..	Inmates, with buckets of water.

\* Mrs. Barnett slightly burned about the face.

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DETAILS OF FIRES which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
Friday, 23 Sept.	3-0 a.m.	None rec'd.	1, Wilmott street, City	William Young	Private dwelling	Brick, with slate roof.	Candle	Atlas, £125		Small fire in front bedroom on first floor	Inmates, with buckets of water.
"	6-30 a.m.	6-35 a.m.	10, Adelaide Place, off Howard street, City.	Jane Lambert	"	Weatherboard, with iron roof.	Matches, careless use of.	None	None	"	"
"	10-3 a.m.	10-11 a.m.	33, West-street, Petersham.	John Morris	"	Brick, with shingle roof.	Fat boiling over.	Aust. Mutual, £225.		A small quantity of fat burned in kitchen on ground floor, and flooring slightly damaged by fire	"
"	5-40 p.m.	5-43 p.m.	Macquarie-street N, City.	Building in course of erection, Phippard Bros., contractors.			Hot ashes	None	None	About 8 square feet of platform on top of scaffold damaged by fire.	Police and M.F.B., with private hose.
"	5-40 p.m.	5-50 p.m.	Outer Domain, City	Sydney Municipal Council.	Corporation Baths	Wood, with iron roof.	Light thrown down.	"	None	Out-house, about 6 x 6 ft. burned and fallen down	M.F.B., with hydrant.
"	6-58 p.m.	7-0 p.m.	331, Parramatta Road, Leichhardt.	Thomas Watson	Grocer	Brick, with iron roof.	Candle	Liverpool and London and Globe, £450.		Some wearing apparel and back door of kitchen damaged by fire.	Inmates, with buckets of water.
"	9-42 p.m.	9-45 p.m.	149, Church-street, Campdown.	Unoccupied	Private dwelling	Brick and weatherboard with iron roof			Liverpool and London and Globe, £100.	Walls and flooring in two front rooms damaged by fire and cutting away.	M.F.B., with one hydrant.
"	10-45 p.m.	10-46 p.m.	Railway Station, Homebush	Railway Commissioners	Railway carriage	Wood	Unknown	None	None	Railway carriage used as a store, with contents, destroyed by fire.	Burwood and Ashfield Vol. F. Coy's., with hydrant.
Saturday, 24 Sept.	3-30 p.m.	None rec'd.	7, Paternoster Row, Pyrmont, City.	George Marshall	Private dwelling	Brick, with iron roof	Matches, children playing with.	"	Unknown	Small fire in front bedroom on first floor	Inmates and neighbours, with buckets of water.
"	8-30 p.m.	8-33 p.m.	Drynan-street, Ashfield	Wm. McMillian	"	Brick, with slate roof.	Light thrown down.	"	None	A quantity of rubbish burned in yard at rear of premises	Inmates, with buckets of water.
Tuesday, 27 Sept.	3-25 a.m.	3-29 a.m.	122, Oxford-street, City	Joseph Roberts	Grocer	Brick, with iron roof.	Unknown	United, £1,250	Aust Mutual, £700, Colonial Mutual, £500, £200	Shop and back store, with contents, very severely damaged by fire and water.	M.F.B., with three hydrants, assisted by Pad. No. 2 V. F. Coy.
Thursday, 29 Sept.	12-53 a.m.	12-55 a.m.	110, Sussex-street, City	Reid and Hughes	Plumbers	Wood and iron, with iron and shingle roof.	Spark from forge	Aust Mutual, £200.	Standard, £250	Shed used as tinmiths' workshop and contents nearly burned out and roof off.	M.F.B., with one hydrant.
"	7-56 a.m.	7-56 a.m.	Devonshire-street, City	Railway Department	Yard	Yard	Tar boiling over	None	None	About 50 gallons of tar burned near washing sheds	Employees and M.F.B., with sand.
"	2-32 p.m.	2-35 p.m.	89, Young-street, Redfern.	Unoccupied	Private dwelling	Brick, with iron roof	Children playing with matches.	"	"	A quantity of rubbish burned under floor, and a portion of flooring boards damaged by fire.	M.F.B., with buckets of water.
"	7-40 p.m.	7-55 p.m.	Off New South Head Road, Woollahra.	Sir Daniel Cooper's Estate.	Vacant land	Vacant land	Light thrown down.	"	"	About an acre of bush burned	M.F.B., by heating out.
Saturday, 1 October.	6-8 p.m.	6-12 p.m.	76 and 78, Clarence-st., City.	McMurtrie & Co.	Boot manufacturers and importers.	Brick, with iron roof.	Light thrown down.	National, £20,500, Royal, £10,000.	Imperial, £4,750, United, £2,750.	A quantity of stock severely damaged by fire and water in basement.	M.F.B., with one hydrant.
Tuesday, 4 October	7-43 p.m.	7-47 p.m.	148, Macquarie-street South, City	Davis Kopelowitz	Private dwelling	Brick, with slate roof.	Gas bracket	None	Unknown	Window curtain burned in front room on first floor	Inmates.
Thursday, 6 October.	2-40 p.m.	3-50 p.m.	Flood-street, Leichhardt	John Wilhams	Rackarock factory	Iron	Friction	"	"	A small quantity of rackarock destroyed, and a small portion of flooring boards damaged by fire and cutting away.	Employees, with buckets of water.
"	6-42 p.m.	6-44 p.m.	47, Shepherd-street, Darlington.	J. Burney	Private dwelling	Brick with iron roof.	Children playing with matches.	"	None	A quantity of straw burned in yard at rear of premises	Inmates, with buckets of water.
Friday, 7 October.	6-50 a.m.	6-55 a.m.	Merlin street, North Sydney.	Robert Davidson	Stable	Weatherboard, with iron roof.	Spark from chimney adjoining.	Royal, £100.		Stable and contents, consisting of a quantity of straw, fodder, &c., slightly damaged by fire and water.	M.F.B., with one hydrant.
"	7-0 p.m.	7-10 p.m.	15, King-street, Balmain	J. A. Oag	Builder	Wood and iron, with iron roof.	Spark from fire-places.	Alliance	Alliance	A small portion of woodwork at side of shed damaged by fire.	Neighbours, with buckets of water.
"	7-46 p.m.	7-50 p.m.	27, King-street, Newtown	Joseph Garrick	Private dwelling	Brick, with iron roof.	Candle	None	Unknown	Window curtain burned and window frame damaged by fire in front room on ground floor.	Inmates, with buckets of water.
"	9-35 p.m.	9-40 p.m.	620, Harris-street, City	Mrs. A. Aaron	"	"	"	"	"	Middle bedroom on first floor, with contents, damaged by fire, smoke, and water.	M.F.B., with buckets of water.
Saturday, 8 October.	2-35 p.m.	2-39 p.m.	52, Regent-street and Holden-street, Redfern.	*George Hudson	Timbermerchants	Wood and iron, with iron roof.	Unknown	New Zealand, £1,000; Cornwall, £1,000.	Merc. Mutual, £2,000.	A building of three floors, about 240 ft. x 195 ft., with contents, burned out and fallen down. Pitters' shop and contents burned out and fallen down.	M.F.B., with eight hydrants and seven steam fire-engines, assisted by several Vol. Fire Companies.
"	"	"	Off 52, Regent-street	Southern Fish Markets (C. F. Marriette)		Brick, with iron roof.	"	None	Merc. Mutual	Three windows burned out	"
"	"	"	80, Regent-street	W. B. Stevens & Co.	Cycle factory	Wood and iron, with iron roof.	"	"	"	Workshop and contents burned out and fallen down	"
"	"	"	28, "	J. McElhone	Livery stables	"	"	Alliance, £480	"	Stables, &c., burned out and fallen down	"
"	"	"	26, "	J. Minto	Plumber	"	"	Colonial Mutual, £500.	"	Side of premises damaged by fire Contents slightly damaged by breakage.	"
"	"	"	54 & 56, "	J. R. Rumsey	Oyster saloon	Brick, with iron roof.	"	Unknown	Aust. Mutual	Outhouses burned down, and contents of back portion of premises severely damaged by fire, and contents by removal.	"

\* An inquest was held by the City Coroner on the 13th inst., when an open verdict was returned. The jury added a rider to the effect that—"Timber yards in thickly-populated centres are a source of danger and should not be allowed."

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898. Saturday, 8 October.	2-35 p.m.	2-39 p.m.	58 & 60, Regent-street.	J. Riddell	Dealer	Brick, with iron roof.	Unknown	Imperial, £200	Aust. Mutual	Outhouses burned down, and contents of back portion of premises severely damaged by fire, and contents by removal. One horse burned to death.	M.F.B., with eight hydrants and seven steam fire engines, assisted by several Vol. Fire Companies.
"	"	"	62, " "	Joe Davis	Upholsterer	" "	"	None	"	Outhouses burned down, and contents of back portion of premises severely damaged by fire, and contents by removal	" "
"	"	"	64, " "	B. J. Short	Dealer	" "	"	"	"	"	"
"	"	"	68, " "	Mrs. E. Penny	Private dwelling	" "	"	"	"	"	"
"	"	"	68, " "	J. Nimmo	Dealer	" "	"	Unknown	"	"	"
"	"	"	29, " "	Charles Sawyer	Grocer	" "	"	Derwent and Tamar, £100.	City Mutual, £500	Front verandah damaged by fire	"
"	"	"	31, " "	John McCall	Jeweller	" "	"	None	"	Front of building damaged by heat, and windows broken	"
"	"	"	33 & 23½, " "	Robert Wakefield	Produce merchant	" "	"	"	"	Front of building scorched, and windows broken	"
"	"	"	35, " "	Frederick Smith	Dealer	" "	"	"	Unknown	Shop and dwelling with contents burned out, and part of roof off.	"
"	"	"	37, " "	W. Bailey	Confectioner	" "	"	"	United Austral. Mutual, £300.	"	"
"	"	"	30, " "	W. S. Miller	Picture framemaker	" "	"	Imperial, £450	Imperial, £450	Contents severely damaged by fire and water; roof partly off, and windows broken.	"
"	"	"	41, " "	Patrick McGinley	Tobacconist	" "	"	Imperial	Imperial	Shop and dwelling, with contents, burned out, and part of roof off.	"
"	"	"	42, " "	John Rowan	"	" "	"	Mercantile Mutual	Mercantile Mutual	Shop and dwelling of eight rooms, with contents, burned out, and roof off.	"
"	"	"	45, " "	C. H. Gardiner	Shoemaker	" "	"	Imperial, £800	Imperial	Shop and dwelling, with contents, burned out, and roof off.	"
"	"	"	47, " "	Newton and Barton	Tailors	" "	"	None	£200	Shop and dwelling, with contents, burned out, and roof off.	"
"	"	"	49, " "	Jacob Solomon	Pawnbroker	" "	"	Imperial	Com. Union	Shop and dwelling, with contents, burned out, and fallen down.	"
"	"	"	51, " "	J. Pigott	Mercer	" "	"	Australian Mutual, £500.	"	"	"
"	"	"	53 & 55, " "	A. Magoschis	Pawnbroker	" "	"	Australian Mutual, £3,500.	City Mutual, £1,500.	Two shops, consisting of ten rooms each, with contents, burned out and partly fallen down.	"
"	"	"	57, " "	Mrs. Munroe	Milliner	" "	"	Unknown	City Mutual, £750	Shop and dwelling of ten rooms, with contents, burned out, and partly fallen down.	"
"	"	"	59, " "	Miss Pugh	Dressmaker	" "	"	"	"	"	"
"	"	"	61, " "	Edward Harper	Tinsmith	" "	"	Australian Mutual, £350.	Com. Union	Shop and dwelling, with contents, burned out, and fallen down. One horse burned to death.	"
"	"	"	63, " "	J. Clements	Newsagent	" "	"	None	Colonial Mutual, £400.	Shop and dwelling, with contents, burned out, and fallen down.	"
"	"	"	63½, " "	J. H. Munnell	Tailor	" "	"	Unknown	Colonial Mutual, £400.	Shop and dwelling, with contents, burned out, and partly fallen down.	"
"	"	"	65, " "	Edmund Bull	Dealer	" "	"	"	Unknown	"	"
"	"	"	67 & 69, " "	Buildings in course of erection.	"	Brick	"	None	None	Two buildings in course of erection damaged by fire	"
"	"	"	71, " "	S. Blakey	Shoemaker	Brick, with iron roof.	"	"	Unknown	Front of building damaged by heat, and window glass broken.	"
"	"	"	71½, " "	J. Allan	Watchmaker	" "	"	Mercantile Mutual, £300.	"	"	"
"	"	"	73, " "	Silvester Bros.	Butchers	" "	"	Unknown	"	Front verandah slightly damaged by fire.	"
"	3 0 p.m.	3 4 p.m.	89, Pitt-street, Redfern.	James Robinson	Private dwelling.	Wood and iron, with iron roof.	Spark from Regent-street fire.	None	"	A two-storied building, of eight rooms, with contents, burned out.	M.F.B., with two hydrants and one steam fire engine, assisted by Vol. Fire Cos.
"	"	"	41, Pitt-street	Mrs. H. Rosenfeldt	Boarding-house	Brick, with iron and shingle roof	"	Mercantile Mutual, £100.	"	Roof damaged by fire. Contents of ten rooms damaged by water and removal.	"
"	"	"	37, " "	Mrs. Delaney	Laundry	Brick, with iron roof.	"	None	"	Furniture damaged by removal	"
"	3-2 p.m.	3-5 p.m.	18, Moorehead-street, Redfern.	Frank Mackaness	Private dwelling.	Brick, with shingle roof.	"	"	"	Roof damaged by fire and cutting away. Contents in rooms under damaged by fire and water.	M.T.B., with one hydrant.
"	3-5 p.m.	3-10 p.m.	11, Pitt-street, Redfern.	James Delaney	"	"	"	"	"	A portion of shingle roof damaged by fire and cutting away	Waverley Vol. F. Co., with one hydrant.
"	3-0 p.m.	3-15 p.m.	Manly	Thomas Doran	"	Wood	Unknown	"	"	Bush hut and contents burned and fallen down.	Manly V. F. Co., with one hydrant.
"	7-16 p.m.	7-23 p.m.	Bellevue Hill, Woollahra	Vacant land.	"	"	Light thrown down.	"	"	A large area of bush and grass burned	M.F.B. by beating out.
Sunday, 9 October.	1-35 p.m.	1-39 p.m.	Shea's Creek, Alexandria.	New South Wales Government.	"	Vacant land	"	None	"	A quantity of rubbish burned on canal bank	Burned itself out.



DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
Monday, 10 October.	12.40 a.m.	None rec'd.	32, Castlereagh-street, City.	Australian Star Newspaper Co., J. M. Sanders, Manager.		Brick, with iron roof.	Unknown .....	City Mutual .....	Several offices ..	Three bales of paper damaged by fire and water on second floor. Contents on floor under slightly damaged by water.	Watchman, with private hose.
"	8.48 p.m.	8.59 p.m.	200, Enmore-road, Newtown.	T. McDonald .....	Dentist. ....	" ..	Gas explosion ...	Unknown .....	Unknown .....	Back room on first floor and contents damaged by explosion.	Inmates, with buckets of water.
Tuesday, 13 October.	7.15 p.m.	None rec'd.	7, Walker street, Waterloo.	George Slade .....	Private dwelling	" ..	Light thrown down.	None .....	Mercantile Mutual, £600.	Front bedroom on ground floor and contents slightly damaged by fire, smoke, and water.	Inmates and neighbours, with buckets of water.
"	7.48 p.m.	7.50 p.m.	Regent-street, Redfern.	Railway Commissioners	Railway siding	Vacant land ..	Spark from locomotive	" .....	None .....	A quantity of straw and rubbish burned adjoining railway bridge.	Employees, with buckets of water.
"	8.30 p.m.	8.43 p.m.	Paul-street, Waverley ..	W. Leslie .....	Paddock .....	" ..	Light thrown down.	" .....	" .....	A quantity of rubbish burned in paddock .....	Neighbours, with buckets of water.
Thursday, 13 October.	3.9 a.m.	3.30 a.m.	*Robert-road, Bankstown	Unoccupied .....	Private dwelling	Weatherboard, with iron roof.	Unknown .....	" .....	Mercantile Mutual, £70.	A cottage of five rooms burned and fallen down .....	Burwood Vol. F. Co., with one hydrant.
"	4.18 p.m.	4.21 p.m.	Victoria-place, off 49, Liverpool-street, City.	W. Riley & Co. ....	Cabinet-makers	Brick, with iron roof.	Children playing with matches.	Caledonian, £750; N. Zealand, £500; Imperial, £500.	" .....	A few bales of tow damaged by fire and water in open yard at rear of premises.	Employees, with buckets of water.
"	6.30 p.m.	6.35 p.m.	8, Park-road, City .....	Adolphus Isaacs .....	Private dwelling	Brick, with slate roof.	Explosion of kerosene lamp.	Unknown .....	Unknown .....	Bed and bedding damaged by fire and water in back bedroom on first floor	Inmates, with buckets of water.
"	7.35 p.m.	None rec'd.	Cowper-street, Waverley	W. Levinson .....	" ..	Brick, with iron roof.	Kerosene lamp, carelessness with	South British, £200.	" .....	Contents of front bedroom on ground floor damaged by fire and water.	" ..
Friday, 14 October.	5.15 p.m.	6.1 p.m.	Dover Heights, Waverley.	Sir D. Cooper .....	Vacant ground	Vacant ground	Light thrown down.	" .....	" .....	About 20 acres of bush burned .....	M.F.B. and Vol. Fire Co's., by heating out.
"	6.45 p.m.	6.50 p.m.	Off 458, King-street, Newtown.	Abel & Co. ....	Paddock .....	" ..	" ..	None .....	None .....	A quantity of rubbish burned in paddock .....	M.F.B., with buckets of water.
"	6.46 p.m.	7.9 p.m.	Bankstown .....	Vacant land.	" ..	" ..	" ..	" ..	" ..	A large tract of bush, &c., burned .....	Burned itself out.
Saturday, 15 October.	12.40 p.m.	12.42 p.m.	133, Raglan-street, Waterloo.	H. Coner .....	Fishmonger .....	Weatherboard, with iron roof.	Spark from chimney.	None .....	None .....	A small portion of roof damaged by fire and cutting away.	M.F.B., with buckets of water.
"	6.52 p.m.	6.54 p.m.	2, Sutherland-street, off Wells-street, Redfern.	J. Stanfield .....	Private dwelling..	Weatherboard, with iron roof.	Matches, careless use of.	" .....	Australian Mutual	Wearing apparel in front room on ground floor damaged by fire and water.	Neighbours, with buckets of water.
"	7.15 p.m.	7.18 p.m.	Church-street, Newtown	Trustees, Baptist Union Church.	Church .....	Stone, with slate roof.	Light thrown down.	Unknown .....	Unknown .....	A quantity of rubbish burned and a portion of fencing damaged by fire at rear of building.	" ..
"	10.47 p.m.	10.51 p.m.	328, Crown-street, City	C. C. Baker. ....	Private dwelling..	Brick, and slate roof.	Candle .....	None .....	" .....	Window curtain burned and rest of contents of middle bedroom on first floor damaged by fire, smoke, and water.	Extinguished by neighbours, with buckets of water.
Sunday, 10 October.	7.16 p.m.	7.18 p.m.	301, George-street, City	Unoccupied premises .....	" ..	Brick, with iron roof.	Unknown .....	" ..	" ..	A quantity of rubbish burned in back room on ground floor; front door broken open.	M.F.B., with buckets of water.
"	11.48 p.m.	11.52 p.m.	7, Raglan-street, Alexandria.	John W. Sutton .....	Boot manufacturer.	" ..	" ..	Alliance, £650 ..	Alliance, £300.	Boot factory, about 16 x 60 feet, with contents, very severely damaged by fire, and part of roof off	M.F.B. with two steam fire-engines and two hydrants, assisted by Vol. Fire Co's.
"	11.45 p.m.	11.52 p.m.	" ..	Miss Bennett .....	Grocer .....	" ..	" ..	None .....		Shop and contents nearly burned out .....	
"	11.48 p.m.	11.52 p.m.	9, Raglan-street ..	G. Davis .....	Private dwelling..	" ..	" ..	" ..	None .....	Furniture damaged by removal .....	
Monday, 17 October.	3.0 a.m.	None rec'd.	Thomas-street, off Engine-street, City.	W. Arnott & Sons .....	Biscuit manufacturers.	" ..	Matches, children playing with.	Atlas, £1,504.	" ..	About 2 x 2 feet of flooring-boards near front door slightly damaged by fire.	Burned itself out.
"	1.0 p.m.	1.3 p.m.	22, Thurlow-street, Redfern.	John G. Deeble .....	Private dwelling.	" ..	Smoking tobacco.	None .....	None .....	Contents of back bedroom on first floor slightly damaged by fire.	Neighbours, with buckets of water.
"	8.52 p.m.	8.55 p.m.	Egan-street, Newtown..	J. C. Conway .....	Stable .....	Weatherboard, with iron roof.	Light thrown down.	" .....	" ..	Stable and contents slightly damaged by fire .....	M.F.B., with buckets of water.
Tuesday, 18 October.	3.40 p.m.	3.50 p.m.	Addison Road, Manly ..	W. E. Farmer .....	Private dwelling	Brick, with iron roof.	Kerosene stove, explosion of.	Unknown .....	Unknown .....	Kitchen and contents slightly damaged by fire .....	Inmates.
"	6.30 p.m.	6.35 p.m.	Balmain Road, Leichhardt.	Vacant land.	" ..	" ..	Light thrown down.	None .....	None .....	A quantity of rubbish burned in paddock .....	Leichhardt Vol. F. Co., with buckets of water.
Wednesday, 19 October.	12.6 a.m.	12.10 a.m.	*Off Smith's Wharf, Miller's Point, Sydney	S.S. "Buteshire," reg. tonnage, 5,574 tons, Captain Olsen.	" ..	Steel .....	" ..	Unknown .....	Several Offices ..	Fore part of vessel nearly burned out .....	M.F.B., with seven steam fire engines, assisted by S.S. "Captain Cook."
"	1.45 a.m.	1.50 a.m.	Rear of 303, Kent-street, City.	W. Akhurst & Co. ....	Printers .....	Brick, with iron roof.	Unknown .....	Several Offices, £6,886.	United, £120 ..	Workshop of one floor, about 30 x 20 feet, with contents, severely damaged by fire.	M.F.B., with two hydrants.
"	2.0 p.m.	2.6 p.m.	26, Birchgrove Road, Balmain.	Walter Buckingham .....	Private dwelling..	Weatherboard, with shingle roof.	Spark from Jacques-street fire.	None .....	City Mutual .....	A portion of shingle roof damaged by fire and cutting away.	Balmain and Leichhardt Vol. Co's, with one hydrant.

\* Outside M.F.B. area. † Sydney Patterson, aged 5 years, severely burned about the body. He was taken to the Sydney Hospital, where he died soon after admission.

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898. Wednesday, 19 October.	2:42 p.m.	2:45 p.m.	4, Jacquis-street, Balmain.	Dr. F. F. Shirrow	Stable, &c.	Weatherboard, with iron roof.	Unknown	None	Standard, £150.	Stable, coach-house, and fodder-room, with contents, burned out and fallen down; one horse burned to death.	Balmain Vol. Fire Co., assisted by M.F.B. and other Vol. Co's, with one hydrant, one manual, and one steamer.
"	"	"	"	Butler, Wills, & Gerethas	Store, &c.	"	"	"		A building of two floors, about 60 x 20 feet, used as a store and workshop, with contents, burned and fallen down.	"
"	"	"	6, Jacquis-street	Thomas Mulhall	Private dwelling.	Brick, with iron roof.	"	"	Austn Mutual, £200.	A cottage of three rooms severely damaged by fire and water; furniture damaged by removal.	"
"	"	"	2, Jacquis-street	Mrs. James Baikie	Private dwelling.	Weatherboard, with shingle roof	"	"	Au-tn. Mutual, £250.	A portion of shingle roof damaged by fire and cutting away	"
"	"	"	"	Water and Sewerage Board.	Office	Wood	"	"	None	A portable office, with contents, burned and fallen down	"
"	"	"	Darling-street	H. B. Macintosh (Council Clerk)	Private dwelling.	Brick and slate roof.	"	"	United, £5,000 on Council's build'g's	Room on second floor, with contents, slightly damaged by fire and water; outhouses, &c., also damaged by fire.	"
"	"	"	3, Jacquis-street	Edgar Dearing	Private dwelling.	"	"	"	Austn Mutual, £100.	Front windows broken and front of building scorched	"
"	7:55 p.m.	8:0 p.m.	Lillie Bridge, Glebe	Vacant land.		"	Light thrown down.	"	"	A quantity of rubbish burned in paddock	Glebe Vol. Co, with buckets of water.
"	8:10 p.m.	8:12 p.m.	Renwick-street, Drummoyno.	Charles R. Whitting	Private dwelling.	Weatherboard, with iron roof	Candle	Mercantile Mutual	Unknown	Contents of front bedroom on ground floor damaged by fire and water.	Drummoyno Vol Co., with buckets of water.
Thursday, 20th Oct.	4:42 a.m.	4:45 a.m.	324, Oxford-street, Paddington	Alfred Lunt	Grocer	Brick and iron roof.	Rats at matches	Eastern Counties, £180.	"	Shop and back room on ground floor, with contents, very severely damaged by fire and water.	Paddington No. 1 and M.F.B., with one hydrant
Friday, 21st Oct.	7:40 a.m.	7:44 a.m.	Gardener's Road, North Botany.	George Joyce	Varnish manufacturer.	Wood, with iron roof.	Varnish boiling over.	None	None	A building of one floor, about 14 x 14 feet, with contents, consisting of varnish, oils, &c., severely damaged by fire	North Botany Vol. Co., assisted by M.F.B., with one hydrant.
Sunday, 23rd Oct.	2:28 p.m.	2:30 p.m.	West-street, Petersham	R. C. Cemetery.		"	Spark from loco motive.	"	"	About ½ an acre of grass burned	Citizens, with bushes.
Monday, 24th Oct.	12:20 a.m.	12:24 a.m.	19, Wyndham-street, Alexandria.	Martin Connelly	Stable	Weatherboard, with iron roof	Candle	None	None	Stable and fodder-room, with contents, consisting of harness, fodder, &c., damaged by fire and water.	M.F.B., with Tozer pump.
Tuesday, 25th Oct.	3:10 a.m.	3:12 a.m.	George's River Road, Enfield.	W Gardner & Co.	General store	Brick, with iron roof.	Unknown	Austn. Mutual, £275; Mercantile Mutual, £150.	Merran'le Mutual, £500.	Shop and dwelling of five rooms, with contents, and store at rear, about 11 x 9 feet, with contents, burned out, and partly fallen down.	Ashfield and Burwood Vol. F. Corps, with one hydrant, assisted by M.F.B.
"	3:27 p.m.	3:32 p.m.	Millett-street, Hurstville	George Williams	Private dwelling.	Weatherboard, with iron roof	Spark from fire-place.	United Australian Mutual, £100.	"	Back bedroom on ground floor and contents slightly damaged by fire and water	Hurstville Vol. F. Co., with one hydrant.
Wednesday, 26th Oct.	8:23 p.m.	8:25 p.m.	*709, Bourke-street, City	Mrs. E. Canvin	Private dwelling.	Brick, with slate roof.	Candle	None	Unknown	Bed and bedding slightly damaged by fire and water in front bedroom on second floor.	Inmates, with buckets of water.
"	9:50 p.m.	9:55 p.m.	341, Glebe Road, Glebe	James B. Corbin	Private dwelling.	Brick and iron roof.	Gas bracket	"	None	Window curtain burned and window-frame scorched in back bedroom on first floor	"
Thursday, 27th Oct.	12:35 a.m.	12:41 a.m.	503 Kent-street, City	Frederick Flood	Private dwelling.	"	Spirit lamp, upsetting of	"	Unknown	A small quantity of wearing apparel damaged by fire	Inmates, with blanket
"	11:10 a.m.	11:12 a.m.	William and Duke Streets, City.	Unoccupied premises.		Brick, with slate roof.	Light thrown down.	"	None	A quantity of rubbish burned in basement	Neighbours and M.F.B., with buckets of water.
"	8:32 p.m.	8:35 p.m.	Fairfowl-street, Marrickville	Francis Nugent	Private dwelling.	Weatherboard, with iron roof.	Kerosene lamp, explosion of.	None	None	Front bedroom on ground floor, and contents damaged by fire and water.	Inmates and neighbours, with buckets of water.
Sunday, 30 October.	2:33 a.m.	2:38 a.m.	170, Denison Road, Petersham.	William Simpson	"	"	"	None	None	Shed about 15 ft. x 20 ft. at rear of dwelling, with contents, consisting of an incubator, &c., burned and fallen down, and about 20 feet of fencing damaged by fire.	M.F.B., with one hydrant..
"	2:32 p.m.	2:34 p.m.	Railway Siding, Erskineville.	Railway Commissioners		"	Spark from loco-motive.	None	None	A quantity of grass burned on railway siding	Railway employees.
Monday, 31 October.	6:32 a.m.	6:35 a.m.	114, Dowling-street, Woolloomooloo, City	Mrs. Annie Smith	Milk vendor	Brick, with iron roof.	Matches, care-less use of.	None	None	Attic room on second floor, and contents damaged by fire and water.	Inmates, and M.F.B., with buckets of water
"	4:40 p.m.	4:45 p.m.	121, Elizabeth-street, City.	Joseph Griffin	Tailor	Brick, with iron over shingle roof.	Spark from fire-place.	Colonial Mutual, £50.	Unknown	Shop on ground floor, with contents burned out	M.F.B., with one hydrant.
"	"	"	"	James W. Wilks	Private dwelling.	"	"	None	None	Room on ground floor, and room over, with contents, very severely damaged by fire and water, and part of roof off.	"
"	"	"	"	Thomas Bridge	Tobacconist	"	"	Commercial Union, £150.	None	Contents of shop on ground floor damaged by heat, smoke, and water.	"
"	"	"	123, Elizabeth-street	W. Denmark	Oyster saloon	"	"	None	None	Ceiling under roof damaged by fire and cutting away	"
Tuesday, 1 Nov.	5:30 p.m.	5:44 p.m.	73, and 75, Castlereagh-street, City.	Angus and Son	Carriage builders	Wood and iron, with iron roof.	Light thrown down.	Australian Mutual.	Unknown	A quantity of rubbish burned in yard. Side of shed and a small quantity of coachbuilder's material slightly damaged by fire.	"
"	6:30 p.m.	6:38 p.m.	Redfern-street, Redfern	Redfern Municipal Council.	Shed	Wood, with iron roof.	Tar boiling over.	None	None	Shed about 16 ft. x 50 ft., with contents, consisting of a quantity of tar, &c., severely damaged by fire.	"

\* T. Canvin slightly burned on the hands.

† Frederick Flood severely burned about the legs.

‡ Annie Jackson slightly burned about the hands.

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898. Tuesday, 1 Nov.	8.11 p.m.	8.14 p.m.	42, Toogood-street, Erskineville.	Mrs. Tollis .....	Private dwelling..	Brick, with iron roof.	Kerosene lamp, upsetting of.	None.....	None.....	Contents of front bedroom on ground floor slightly damaged by fire and water.	Inmates and M.F.B., with buckets of water.
Wednesday 2 Nov.	10.25 a.m.	10.25 a.m.	250, Castlereagh-street City.	J. Galvayne .....	Livery stables ..	"	Tar boiling over..	United; 'Austra- trian Mutual.	Unknown .....	About 10 gallons of tar destroyed by fire in yard.....	M.F.B., with sand.
"	1.8 p.m.	1.13 p.m.	Pile-street, Marrickville	Edward Gillow .....	Bootmaker .....	Weatherboard, with iron roof	Light thrown down.	None.....	None.....	Workshop about 9 ft. x 12 ft. rear of dwelling, with contents, burned and fallen down.	M.F.B., with one hydrant.
"	9.35 p.m.	9.40 p.m.	"Portland," Soudan- street, Randwick.	W. Pearson .....	Stable .....	Weatherboard, with iron roof.	Unknown .....	Unknown .....	Unknown .....	Stable and coach-house about 30 ft. x 16 ft., and loft over, with contents, burned and fallen down. Fodder room adjoining burned out. One horse burned to death.	M.F.B. with two hydrants assisted by Waverley Vol. Fire Co.
Thursday, 3 November.	1.33 a.m.	1.34 a.m.	Duncan-street, City....	Robert Harper & Co (Limited).	Coffee and spice merchants.	Brick, with iron roof.	"	Several offices ..	Several offices ..	A small quantity of ginger damaged by fire on first floor of mill. Contents under damaged by water.	Grinnell sprinkler.
"	7.30 p.m.	7.33 p.m.	Edward-street, Marrick- ville.	Samuel Thompson ..	Paddock .....	"	Light thrown down.	Unknown .....	Unknown .....	A quantity of rubbish burned in paddock .....	M.F.B., with buckets of water.
Friday, 4 November.	9.5 p.m.	9.9 p.m.	20, Imperial Arcade, City.	Miss Baxter .....	Refreshment rooms.	Brick, with iron roof.	Unknown .....	None.....	Several offices ..	Shelving in shop slightly damaged by fire and contents by water. Plate glass shop front broken.	Caretaker, with private hose.
"	10.50 p.m.	10.55 p.m.	Wellington-street, Bal- main.	J. Killian .....	Private dwelling..	"	Light thrown down.	"	None.....	A quantity of rubbish burned in yard at rear of premises ..	Balmuir Vol. Co., with one hydrant.
Saturday, 5 November.	2.50 p.m.	2.58 p.m.	Manly .....	Vacant land .....	"	"	"	"	"	A quantity of bush burned and a small portion of fencing damaged by fire.	Manly Vol. Co., with one hydrant
"	"	4.11 p.m.	Grosvenor-street, Eur- wood.	Railway Commissioners	Railway siding ..	"	Spark from loco- motive.	None.....	None.....	A quantity of grass burned at railway embankment .....	Police and citizens, with buckets of water
"	4.30 p.m.	4.40 p.m.	Lavender-street, North Sydney.	Vacant land .....	"	"	Light thrown down.	"	"	A quantity of bush burned .....	M.F.B., with one hydrant.
"	6.40 p.m.	6.48 p.m.	Bellevue Hill, Woollahra	"	"	"	"	"	"	A quantity of bush, &c., burned .....	M.F.B. and Waverley Vol. Fire Co. by heating out.
Sunday, 6 November.	2.0 p.m.	2.6 p.m.	*Quarantine Grounds, Manly.	N.S.W. Government ..	Quarantine grounds.	"	"	None.....	None.....	A quantity of bushes burned, and a portion of fencing destroyed by fire.	Manly Vol. Fire Co., assisted by M.F.B., with two hydrants.
"	2.30 p.m.	2.42 p.m.	40, Schimmel-st., Waterloo	G. H. Stuhr .....	Private dwelling..	Brick, with iron roof.	Matches, children playing with.	"	"	A quantity of rubbish burned in back room .....	Inmates, with buckets of water.
"	10.10 p.m.	10.14 p.m.	Bellevue-street, Redfern	W. Floyd .....	"	Weatherboard, with iron roof.	Spark from fire- place.	"	Unknown .....	Kitchen and contents damaged by fire and water.....	"
Monday, 7 November.	11.42 a.m.	11.45 a.m.	Parramatta Road, Leichhardt.	Thomas Carlton .....	Draper .....	Brick, with iron roof.	Spark from chim- ney.	National, £5,000..	"	A quantity of rubbish burned in yard at rear of premises ..	"
"	6.20 p.m.	6.25 p.m.	216, Enmore Road, Newtown.	J. Drew .....	Produce mer- chant.	Weatherboard, with iron roof.	Spark from chim- ney adjoining.	Manchester, £55; Commercial Union, £80.	Uninsured .....	A building of one floor about 20 ft. x 16 ft., about 2 tons of straw and a quantity of chaff severely damaged by fire and water. Side of building damaged by fire.	M.F.B., with two hydrants.
Tuesday, 8 November.	4.0 p.m.	4.5 p.m.	The Corso, Manly .....	Emma Adrian .....	Licensed victual- ler, "Ivanhoe Hotel."	"	Light thrown down.	None.....	Unknown .....	A quantity of straw burned in shed, and side of shed damaged by fire.	Manly Vol. Fire Co., with one hydrant
Wednesday, November.	1.57 a.m.	1.50 a.m.	Parker-street, City ....	Anthony Hordern & Sons.	General mer- chants.	Brick, and iron roof.	Unknown .....	Several offices ..	Several offices ..	A building of eight floors, about 89 ft. x 120 ft. Top floor, used as a bulk crockery store and packing room, burned out and roof off. Contents of floors under damaged by water.	M.F.B., with five steam fire engines, assisted by Vol. Fire Companies.
Friday, 11 Nov.	3.29 p.m.	3.30 p.m.	Herman-street, Kogarah.	Oliver Davis .....	Private dwelling	Weatherboard, with iron roof.	Unknown .....	Manchester, £100.	"	A cottage of four rooms, with contents, burned out, and partly fallen down.	Kogarah Vol. Fire Co., with one hydrant, assisted by Rockdale and Hurstville Vol. Cos.
"	7.28 p.m.	7.30 p.m.	Croydon Avenue, Enfield.	Alexander Erskine ..	Paddock .....	"	Light thrown down.	None.....	None.....	A quantity of rubbish burned in paddock at rear of dwel- ling.	M.F.B., with buckets of water
"	9.20 p.m.	9.23 p.m.	Off Henderson Road, Alexandria.	Mrs. Higgins .....	"	"	"	"	"	A quantity of rubbish burned in paddock .....	"
Saturday, 12 Nov.	11.26 p.m.	11.50 p.m.	Imperial Arcade, Pitt- street, City.	W. Parkes, Licensed Victualler, "Hotel Arcadia."	"	Brick, with iron and glass roof	Incendiarism ..	Unknown .....	(Offices unknown)	A small quantity of rubbish burned under stairs .....	Employees.
Sunday, 13 Nov.	4.50 a.m.	4.53 a.m.	40, Campbell-street, North Sydney.	Miss Martha M. Jenkins	Boarding-house.	Brick, with iron roof.	Light thrown down.	Mercantile Mutual, £350.	Australian Mutual, £1,500.	Front room on ground floor, with contents, damaged by fire and water.	Inmates and M.F.B., with buckets of water.
"	7.0 p.m.	7.0 p.m.	Queen-street, Alexandria.	Alexandria Municipal Council.	Road .....	"	Matches, children playing with.	None.....	"	About 30 x 30 feet of corduroy road damaged by fire .....	M.F.B., with one hydrant.
Monday, 14 Nov.	12.6 p.m.	12.10 p.m.	Bond and Hamilton Streets, City.	Sydney Municipal Council.	Street .....	"	Tar boiling over..	"	"	About 20 gallons of tar destroyed by fire.....	Employees, with sand.
"	3.40 p.m.	3.46 p.m.	West Botany-street, Rockdale.	Luke Walsh .....	Private dwelling..	Weatherboard, with iron roof.	Spark from fire- place.	None.....	Manchester, £100	A cottage of six rooms and outhouses, with contents, burned, and fallen down.	Kogarah, assisted by Rock- dale and Hurstville Vol. Fire Cos. and M.F.B., with hydrant.
"	"	"	"	William H. Beehag ..	"	Brick, with slate roof.	"	"	Victoria, £300 ..	About 12 feet of ridging of roof damaged by fire .....	"

\* Previous fire, 12th April, 1890.

DETAILS OF FIRES which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1893. Tuesday, 15 Nov.	3-15 p.m.	3-20 p.m.	"Westmead," Parramatta.	Roman Catholic	Boy's Orphanage	Brick, and shingle roof	Spark	City Mutual	City Mutual	A small portion of shingle roof damaged by fire	Inmates, with buckets of water.
Wednesday, 16 Nov.	11-25 a.m.	11-27 a.m.	"The Avenue," Ashfield	E. H. Rogers	Private dwelling.	Weatherboard, with iron roof.	Burning rubbish	None	None	Bush house, about 12 x 16 feet, destroyed by fire	Burwood V. F. Co., with one hydrant.
"	"	"	"	W. E. Outred	"	Brick, with shingle roof.	"	"	"	A small portion of shingle roof damaged by fire and cutting away.	"
"	1-55 p.m.	2 0 p.m.	Lord-street, North Botany.	W. and S. Board	Vacant land.	"	Light thrown down.	"	"	About a 1/4-acre of grass burned on water reserve	M.F.B. and North Botany Vol. Co., with one hydrant.
Friday, 18 Nov.	6 24 p.m.	6 27 p.m.	Elizabeth-street, City	Church of England Cemetery.	"	"	Matches, children playing with.	"	"	A portion grass burned in cemetery	Neighbours, with buckets of water.
"	10-50 p.m.	10 55 p.m.	White Bay, Balmain	* Barque "Darra," 1,000 tons register, Captain Hawkes, Master.	Wood	"	Unknown	"	United, £1,000	Fore-peak and topgallant forecabin severely damaged by fire; fore part of hold slightly damaged by fire.	Balmain Vol. Fire Co., with hydrant, and M.F.B., with two steam fire-engines.
Saturday, 19 Nov.	7-20 p.m.	7 23 p.m.	161, Darling street, Balmain.	H. W. Stedman, Licensed Victualler, "Waverley Hotel."	"	Stone, with iron roof.	Candle in contact with curtain.	"	Unknown	Window blinds and bed curtains burned in front room on second floor.	Inmates, with buckets of water.
"	7-44 p.m.	7-45 p.m.	Commanarra Road, Kogarah.	Edward Wright	Paddock.	"	Light thrown down.	"	"	A quantity of rubbish burned in paddock	Burnt itself out.
"	9-10 p.m.	9-16 p.m.	3, Stream-street, City	Linley Wilson	Private dwelling.	Brick, with slate roof.	Candle	Australian Mutual, £150.	"	Portion of contents of dining-room, on ground floor, damaged by fire and water.	Inmates, with buckets of water.
"	9-40 p.m.	9-42 p.m.	729, Harris-street, City	Bernard Winter	Modeller	Wood, with iron roof	Light thrown down	Unknown	"	A quantity of papers, &c., burned in stable in rear of premises.	M.F.B., with buckets of water.
"	9-50 p.m.	9 51 p.m.	Liverpool Road, Ashfield.	Hodgen, Bros.	Grocers and drapers.	Brick, with iron roof.	Curtain in contact with gas bracket.	Imperial, £1,000.	"	Window curtains burned and frame scorched in bedroom on first floor, rest of contents slightly damaged by fire.	Inmates and neighbours, with buckets of water.
Sunday, 20 Nov.	7-25 p.m.	7-30 p.m.	112, Abercrombie-street, City.	Granston, Bros.	Grocers	"	Light thrown down.	Australian Mutual, £400	"	A quantity of straw burned in stable, and horse slightly burned about the legs and body.	Inmates, with buckets of water.
Monday, 21 Nov.	12-40 a.m.	12-44 a.m.	93, Albion-street, Annandale.	Leigh Broughton	Private dwelling.	Weatherboard, with iron roof.	Candle in contact	None	"	Back bedroom on ground floor, with contents, severely damaged by fire and water.	Neighbours, with buckets of water.
Tuesday, 22 Nov.	1 0 p.m.	1 0 p.m.	Bradley's Head, Mosman	N.S.W. Government	Military reserve.	"	Light thrown down	"	None	Several acres of bush burned	M.F.B., by beating out.
"	8-27 p.m.	8 30 p.m.	Wentworth-street, St. Peters.	William T. Bear	Private dwelling.	Weatherboard, with iron roof.	Candle in contact with curtain.	"	Unknown	Bed and wearing apparel, together with contents of front bedroom on ground floor, damaged by fire and water.	Inmates, with buckets of water.
"	11-25 p.m.	11-23 p.m.	Riley and Devonshire Streets, City.	George McKee	Shop and dwelling	"	Smoking tobacco	"	"	A small quantity of wearing apparel damaged by fire in shop.	M.F.B., with buckets of water.
Wednesday, 23 Nov.	8 0 a.m.	8 5 a.m.	33, Carlisle-street, Leichhardt.	Edward Coogan	Private dwelling.	Brick, with iron roof.	Tar boiling over	Unknown	Australian Mutual	A quantity of tar burned in back yard	Leichhardt V. F. Co., with sand.
"	2-30 p.m.	2-35 p.m.	Belgrave-street, Kogarah	Dr. Buttner	"	Weatherboard	Unknown	None	Unknown	Fernery at rear of premises burned, and fowl-house adjoining partly destroyed by fire.	Kogarah V. F. Co., assisted by Rockdale V. F. Co., with one hydrant.
"	2-40 p.m.	2-40 p.m.	Potts' Hill, Mookwood	Robert Webber	"	Wood, with iron roof.	Defective fireplace	Mercantile Mutual	Mercantile Mutual	A dwelling of two rooms, with contents, burned and fallen down.	Burned itself out.
"	5-35 p.m.	5-40 p.m.	Luans Road, Burwood	John A. Hearn	Stable	Weatherboard, and iron roof.	Unknown	None	None	A number of empty casks and about 12 feet of fencing damaged by fire	Burwood V. F. Co., with private hose.
"	9-50 p.m.	9-56 p.m.	75, Sutherland street, Paddington.	C. T. Childers	Private dwelling.	Brick, with slate roof.	Candle	Unknown	Unknown	Back bedroom on first floor and contents damaged by fire and water.	Neighbours, with buckets of water.
Thursday, 24 Nov.	12-30 a.m.	12-57 a.m.	Terrace-street, North Sydney.	Trustees of Congregational Church.	Sunday school	Stone and wood, with iron roof.	Light thrown down.	None	"	About 20 feet of fencing at rear of school damaged by fire.	M.F.B., with one hydrant.
"	3-7 a.m.	3-10 a.m.	126, Abercrombie-street, Redfern.	T. M. Clark	Coachbuilder	Brick, with iron roof.	Smoking tobacco	Standard, £750	"	Contents in workshop severely damaged by fire and water.	"
"	1-49 p.m.	1-54 p.m.	Elkington Park, Balmain	James Boyd	Park	Park	Light thrown down.	None	Unknown	A quantity of bush and rubbish burned	Balmain V. F. Co., with one hydrant.
"	6-37 p.m.	6-41 p.m.	235, Clarence-street, City	Hill, Dickinson, & Co.	Warehouse	Brick, with iron roof.	"	Several offices	"	A quantity of rubbish burned in area	M.F.B., with buckets of water.
Friday, 25 Nov.	3-30 p.m.	3-35 p.m.	20, Leopold-street, Ashfield.	Arthur Poulton	Private dwelling.	Brick, with slate roof.	Spark from chimney.	Alliance, £200	Mercantile Mutual, £500.	A portion of roof damaged by fire and cutting away; contents of rooms under damaged by water.	M.F.B. and Burwood V.F. Co., with one hydrant.
"	4 0 p.m.	4 4 p.m.	Ramsay Road, Ashfield.	George Schnader	Nursery	"	Light thrown down.	Unknown	Unknown	A quantity of rubbish and grass burnt in nursery grounds.	Leichhardt V. F. Co., with one hydrant.
"	8-55 p.m.	9 0 p.m.	Bannion-street, Rockdale.	"	Paddock	"	"	"	"	A quantity of rubbish, &c., burned in paddock	Rockdale V. F. Co., with buckets of water.
Saturday, 26 Nov.	1-25 a.m.	1-28 a.m.	No 11 Platform, Terminus-street.	N.S.W. Government	Railway	Railway embankment.	Spark from locomotive.	None	None	About 30 feet by 7 of grass burnt on embankment opposite No. 11 Platform.	Employees, with one hydrant.
"	11-18 a.m.	11-22 a.m.	New South Head Road, Vaucluse.	*Shaftesbury Reformatory (Mrs. Cunningham, Matron).	"	Stone, with iron over shingle roof.	Flue, defect in	"	"	Roof over laundry severely damaged by fire and cutting away.	Inmates and M.F.B., with one hydrant.
Sunday, 27 Nov.	3-40 p.m.	3-47 p.m.	Frederick-street, Newtown.	W. J. Foster	Private dwelling.	Fence	Friction	None	None	About 2 ft. of fencing burned at rear of dwelling	Inmates.
Tuesday, 29 Nov.	8-43 a.m.	8-45 a.m.	West-street, Petersham	Cardinal Moran	Catholic Cemetery	"	Spark from locomotive.	Unknown	Unknown	About half an acre of grass burned	Employees, M.F.B., and Leichhardt, with bushes.

\* Outside M.F.B. area.

DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by—
								Contents.	Building.		
1898. Wednesday, 30 Nov.	1-20 p.m.	1-22 p.m.	Fisher-street, Petersham	Agent—T. B. Walker, Scott Chambers, 93, Pitt-street, City	Paddock	Paddock	Light thrown down.	.....	.....	A portion of fencing in garden damaged by fire	Citizen and M.F.B., with buckets of water.
"	"	8-35 p.m.	Queen-street, Alexandria	Alexandria Council	Public street	.....	"	.....	.....	About 30 x 30 ft. of rubbish on roadway burned	Waterloo V.F.Co., with one hydrant.
"	2-20 p.m.	2-25 p.m.	Darling-street, Balmain		Paddock.	.....	"	.....	.....	A quantity of rubbish burned and a small portion of fencing damaged by fire.	Balmain V.F.Co. with buckets of water.
Thursday, 1 Dec.	7-30 p.m.	7-40 p.m.	Marion-street, Leichhardt.	"	"	.....	"	.....	.....	A quantity of rubbish burned in paddock	Burned itself out.
Friday, Dec.	4-40 p.m.	4-45 p.m.	29, King-street, Newtown	Henry Meldrum	Fruiterer	Brick, and slate roof.	"	Col. Mutual, £100	Unknown	Contents of front bedroom on first-floor slightly damaged by fire and water	Inmates, with buckets of water.
"	7-27 p.m.	7-30 p.m.	Forest Road, Rockdale.		Vacant land.	.....	"	.....	.....	A quantity of bush, &c., burned on vacant land	Citizens, by beating out.
Saturday, 3 Dec.	12-20 p.m.	12-23 p.m.	124, Eveleigh street, Redfern.	William Pepper	Private dwelling.	Brick, with shingle roof	Spark from adjoining chimney.	None	Unknown	A cottage of five rooms. Roof burned off, ceiling damaged by water, and contents by removal.	M.F.B., with one hydrant.
"	"	"	126, Eveleigh-street	Richard Barrett	"	"	"	"	"	A cottage of five rooms. Roof partly burned off, ceilings damaged by water, and contents by removal.	"
"	"	"	128, Eveleigh-street	Richard Thomas	"	"	"	"	"	A cottage of five rooms. Roof damaged by fire and cutting away, and contents slightly damaged by water and removal.	"
"	2-27 p.m.	2-30 p.m.	2, Great Buckingham-street, Redfern	Rebecca Brosey	"	Brick, with iron roof.	Spark from fire-place.	Australian Mutual—building and contents, £300.	Unknown	Kitchen on ground floor and contents damaged by fire, smoke, and water.	Neighbours, with buckets of water.
"	7-30 p.m.	7-24 p.m.	Park Road, Burwood	J. T. Riley	Paddock.	.....	Spark from locomotive.	None	None	About 50 x 50 feet of grass burned in paddock	Neighbours, with buckets of water.
"	8-5 p.m.	8-10 p.m.	Off Moore's Wharf, Miller's Point, the Harbour.	* S.S. "Nithsdale," 1,890 tons, Captain G. Haddon.	"	Steel	Smoking tobacco	Unknown	Unknown	Port side of fore-castle and contents very severely damaged by fire.	M.F.B., with one steam fire engine.
Sunday, 4 Dec.	1-25 a.m.	1-30 a.m.	A'Beckett-street, Granville.	W. Beaumont & Co.	Tannery	Weatherboard, with iron roof.	Sodium	Coml. Union, £350	Coml. Union, £150	Side of building slightly damaged by fire	Granville V.F.Co., with one hydrant.
"	6-55 a.m.	7-0 a.m.	Clarendon-street, Strathfield	W. Johnstone	Private dwelling.	Brick, with iron roof.	Unknown	Unknown	Unknown	Pantry at rear of dwelling burned out and roof fallen in	Burwood V.F.Co., with one hydrant.
"	4-0 a.m.	3-5 a.m.	George and Harris Streets, Parramatta.	J. Dickens	Grocer	Brick, with iron over shingle roof	"	Australian Mutual, £100.	Australian Mutual, £300.	Shop and dwelling of five rooms nearly burned out and roof off.	Parramatta V.F.Co., with one hydrant.
"	12-1 p.m.	12-5 p.m.	Queenscliff, Manly	Mrs. Buller	Paddock	.....	Light thrown down.	.....	.....	About 300 feet of fencing burned	Manly V.F.Co., with manual engine.
"	3-0 p.m.	2-3 p.m.	Shea's Creek, North Botany.	"	"	.....	"	.....	.....	A quantity of rubbish, bushes, &c., burned	North Botany V.F.Co., with buckets of water.
"	3-13 p.m.	3-18 p.m.	Waterloo Park, Waterloo	Municipal Council	Park	.....	"	.....	.....	About half an acre of grass burned in park	Waterloo V.F.Co., with one hydrant.
"	8-55 p.m.	9-0 p.m.	Church street, Parramatta, N.	George Mortimer	Private dwelling.	Brick, with iron roof.	Candle	None	Unknown	Bed and bedding damaged by fire, and water in bedroom on first floor.	Inmates, with buckets of water.
"	9-50 p.m.	9-53 p.m.	46 and 48, Pymont Bridge-road, City.	Taylor Bros.	Produce merchants.	"	Unknown	Alliance, £200	London and Lancashire, £500.	A building of one and two floors, about 60 x 80 feet, with contents, consisting of a large quantity of produce, severely damaged by fire and water.	M.F.B., with one steam fire engine and three hydrants.
Monday, 5 Dec.	10-10 a.m.	10-12 a.m.	West-street, Petersham		† Roman Catholic Cemetery.	.....	Light thrown down.	None	Unknown	A quantity of grass burned in cemetery	M.F.B., with buckets of water.
Tuesday, 6 Dec.	2-12 p.m.	2-15 p.m.	Minton-street, Canterbury.	Mary Rossworn	Private dwelling.	Weatherboard, with shingle roof.	Spark from chimney.	"	Australian Mutual.	A portion of shingle roof damaged by fire	Neighbours, with buckets of water.
"	11-10 p.m.	11-15 p.m.	151, Glebe-road, Glebe	Arthur Coningham	Tobacconist	Brick, with iron roof.	Unknown	Atlas, £250	Unknown	Shop on ground floor, with contents, severely damaged by fire and water; saloon at rear, with contents, damaged by heat and smoke.	Glebe V.F.Co. and M.F.B., with one hydrant.
Wednesday, 7 Dec.	7-42 p.m.	7-42 p.m.	Wyndham-street, Alexandria.		Paddock	.....	Light thrown down.	.....	.....	A quantity of rubbish burned in paddock	M.F.B.
Thursday, 8 Dec.	3-4 a.m.	3-7 a.m.	220, Pitt-street, City	Miss Winifred McNamara.	Refreshment rooms	Brick, with iron roof.	"	Northern, £100	Unknown	A number of empty cases burned in basement, and flooring and joisting damaged by fire.	M.F.B., with one hydrant.
"	4-30 p.m.	4-43 p.m.	Military-road, Mosman.		Vacant land	.....	"	.....	.....	Several acres of bush burned, and a portion of fencing damaged by fire.	M.F.B., by beating out.
"	6-48 p.m.	6-50 p.m.	Elizabeth-street, City		Church of England Cemetery.	.....	"	None	Unknown	About an acre of grass and some wooden fencing round graves burned.	M.F.B., with hydrant.
"	7-46 p.m.	7-50 p.m.	Missenden-road, Campdenrow.	St. John's Roman Catholic College.	Paddock	.....	"	"	"	About 2 acres of grass burned in paddock	M.F.B., by beating out.
Friday, 9 Dec.	1-22 a.m.	1-24 a.m.	106, New Canterbury-road, Petersham.	James Simpson	Grocer	Brick, with iron roof.	"	Comm. Union, £850.	South British, £1,000.	Carpenter's bench and a quantity of oil and paint severely damaged by fire, rest of contents slightly damaged by fire, smoke, and water.	M.F.B., with one hydrant.
"	7-20 a.m.	7-25 a.m.	Illawarra-road, Marrickville.	Frederick Schivelkerk	Private dwelling.	"	Matches, children playing with.	None	Unknown	Bed and bedding damaged by fire and water, in front bedroom on first floor.	Inmates, with buckets of water.

\* Outside M.F.B. area; Charles Russell, aged 21 years, burned about the shoulders. Treated at Sydney Hospital.

† Previous fire, 29th November, 1898.

## DETAILS of Fires which have occurred within the Metropolitan District—continued.

Date.	When discovered.	Time of call.	Locality.	Tenant.	How occupied.	Construction.	Supposed cause of fire.	Insurances.		Damage.	Extinguished by
								Contents.	Building.		
1898. Friday, 9 Dec.	10:30 a.m.	10:55 a.m.	Canterbury Road, Canterbury.	S. Betts .....	Paddock .....	.....	Light thrown down.	None .....	Unknown .....	About 200 yards of fencing burned, round paddock .....	Rockdale and Kogarah V.F. Cos., by beating out.
"	11:15 a.m.	11:20 a.m.	72, Pitt-street, North Sydney.	Miss E. A. Higgins .....	Private dwelling .....	Brick, with iron roof.	Spark from chim- ney.	United, £450 .....	City Mutual, £1,000.	Front bedroom on second floor, and contents, damaged by fire and water.	Neighbours and M.F.B., with garden hose.
"	4:43 p.m.	4:46 p.m.	88, New Canterbury Road, Petersham.	Matthew Keogh .....	" .....	Weatherboard, with iron roof.	Matches, children playing with.	None .....	Unknown .....	Shed at rear of premises and contents damaged by fire.	Inmates, with garden hose.
"	7:40 p.m.	7:45 p.m.	Spring-street, Rockdale	Thomas Milner .....	Orchard .....	.....	Light thrown down.	Unknown .....	" .....	A quantity of grass burned, and some trees damaged by fire in orchard.	Kogarah and Rockdale V.F. Co.'s.
"	8:10 p.m.	8:18 p.m.	Alma-street, Mosman ..	Vacant land.	.....	.....	" .....	None .....	None .....	A large tract of bush burned on vacant land, and a portion of fencing adjoining damaged by fire.	M.F.B., by beating out
Sunday, 11 Dec.	4:0 a.m.	6:13 a.m.	Off Union-street, Bal- main, The Harbour.	*Allen and Hunter .....	Steam-tug "Greyhound."	Wood .....	Unknown .....	North Queensland, £3,000.	.....	About 10 x 4 feet of starboard side of coal-bunker, and under part of decking, damaged by fire.	Balmain Vol. Fire Co., with hydrant, assisted by M.F.B.
"	7:30 a.m.	None rec'd.	Leichhardt-street, Waverley.	J. Spohn .....	Baker .....	Brick, with iron roof.	Fire, careless use of.	Commercial Union, £300.	City Mutual .....	Fittings in bake house slightly damaged by fire	Inmates, with buckets of water.
"	11:10 a.m.	11:10 a.m.	Burns Bay Road, Lane Cove.	†James Florence .....	Paddock.	.....	Light thrown down.	None .....	Unknown .....	Several yards of fencing burned round paddock.	M.F.B., by beating out.
Tuesday, 13 Dec.	10:1 a.m.	10:3 a.m.	314, Victoria-street, Darlinghurst, City.	†Mrs. Annie Egan .....	Private dwelling .....	Stone and slate roof.	Escape of gas.	" .....	" .....	Front verandah and front windows on ground floor damaged by explosion. Flooring of front room slightly damaged by fire.	M.F.B., with buckets of water.
Friday, 16 Dec.	9:6 a.m.	9:10 a.m.	323, King-street, Newtown.	J. H. Mundy .....	Fruiterer .....	Wood, with iron roof.	Light thrown down.	" .....	None .....	Stable and out-house, at rear of premises, with contents, burned out. One horse burned to death.	M.F.B., with one hydrant.
"	2:17 p.m.	2:20 p.m.	Murray-street, Pyrmont, City.	Railway Department	Paddock .....	.....	" .....	" .....	" .....	A quantity of grass burned in paddock.	" "
"	6:20 p.m.	6:23 p.m.	494, George-street, City	Arthur P. Carrington .....	Confectioner .....	Brick, with iron roof.	Lighting gas .....	" .....	Unknown .....	Contents in shop window slightly damaged by fire and water.	Inmates and neighbours, with buckets of water.
Saturday, 17 Dec.	8:1 p.m.	8:4 p.m.	252, George-street, City	Holdsworth, Macpher- son, & Co.	General merchants	" .....	Unknown .....	Several offices .....	Several offices .....	A crate containing earthenware burned on top of floor of bulk store. Stock under slightly damaged by water.	Grimmell sprinkler, and private hydrant.
"	10:10 p.m.	10:15 p.m.	Gloucester Road, Hurstville.	Alexander Loudon .....	Private dwelling .....	Weatherboard, with iron roof.	Unknown .....	None .....	None .....	Sociable in shed at rear of dwelling damaged by fire ....	Inmates with buckets of water.
Sunday, 18 Dec.	11:34 a.m.	11:37 a.m.	Dowling-street, Moore Park, city.	Public Reserve.	.....	.....	Light thrown down.	" .....	" .....	About one acre of grass burned .....	M.F.B., by beating out.
"	4:0 p.m.	4:3 p.m.	373a George-street, city.	Metcalf and Barnard .....	Manufacturers agents.	Stone, with iron roof.	Unknown .....	Several offices, £13,000.	Several offices, £80,000	A portion of stock in basement damaged by fire and water.	M.F.B., with one hydrant.
Wednesday, 21 Dec.	11:9 a.m.	11:11 a.m.	"Glenrhoda," Lower Port-street, Woollahra	J. H. Newman .....	Private dwelling .....	Brick, with shingle roof.	Light thrown down.	Mercantile Mutual, £500.	Unknown .....	Fornery, and about 20 feet of fencing damaged by fire at rear of dwelling.	M.F.B., with one hydrant; assisted by Waverley V.F.C.
"	4:9 p.m.	4:11 p.m.	Buckland-street, Alexandria.	J. W. Whitehouse .....	" .....	Weatherboard, with iron roof.	Matches, children playing with.	None .....	None .....	Bench in yard, and about 4 feet of fencing damaged by fire.	M.F.B., with buckets of water.
Friday, 23 Dec.	10:58 a.m.	11:0 a.m.	"Wallaroy," Edgecliffe Road, Woollahra.	Norman Shelly .....	" .....	Brick, with slate roof.	Light thrown down.	Unknown .....	Unknown .....	About 60 feet of fencing damaged by fire at rear of dwelling.	M.F.B., with one hydrant.
"	12:45 p.m.	12:54 p.m.	Carabella-street, North Sydney.	J. Trevor-Jones .....	" .....	Brick, with iron roof.	" .....	None .....	None .....	About 20 yards of fencing, and a portion of back verandah damaged by fire at rear of dwelling.	" "
"	3:0 p.m.	3:10 p.m.	170, Kent-street, City.	John Kilberg .....	Licensed Victualler.	Brick, with iron over shingle roof.	Spark from chimney.	United, £275 .....	Unknown .....	Roof and ceiling damaged by fire and cutting away. Contents under damaged by water.	" "
"	9:45 p.m.	9:50 p.m.	176, Enmore Road, Newtown.	Claude Eldridge .....	" Mann's Hotel." Dyer .....	Brick, with iron roof.	Candle .....	None .....	" .....	Window curtain burned, and window frame scorched in front bedroom on second floor.	Inmates with buckets of water.
Tuesday, 27 Dec.	3:25 a.m.	3:20 a.m.	"Fernleigh," New South Head Road, Woollahra.	§Frank Bennett .....	Stables, &c. .....	Wood, with iron roof.	Unknown .....	Australian Mutual, £1,000.	.....	A building of one and two floors, used as a coach-house, stables, &c., with contents, nearly burned out, and partly fallen down.	M.F.B., with one hydrant; assisted by Waverley Vol. Fire Co.
Wednesday, 23 Dec.	3:43 p.m.	3:47 p.m.	Botany Road, Waterloo	Alfred Cooper .....	Dairy .....	" .....	Spark from chimney.	Australian Mutual, £350.	.....	A shed-building, about 40 x 20 feet, of three rooms, with contents, severely damaged by fire and water	M.F.B., with one hydrant.
Wednesday, 28 Dec.	7:35 p.m.	7:39 p.m.	68, William-street, City	¶William Baxter .....	Confectioner .....	Brick, with iron roof	Lighting gas .....	United Australian Mutual, £700.	Unknown .....	A small portion of stock in shop windows damaged by fire and water.	Inmates and neighbours, with buckets of water.
Thursday, 29 Dec.	3:20 p.m.	3:29 p.m.	Bellevue Hill, Woollahra	Sir Daniel Cooper Estate	Vacant land.	.....	Light thrown down.	.....	.....	About 1 acre of grass burned .....	M.F.B. and Waverley Vol. F. Co., by beating out.
Friday, 30 Dec.	2:50 p.m.	3:5 p.m.	"Gowan Brae," Pennant Hills Road, Pennant Hills.	*James Burns .....	Private dwelling .....	Weatherboard, with iron roof	Matches, children playing with.	Unknown .....	Unknown .....	Gardener's cottage of five rooms and outhouse, with con- tents, burned and fallen down.	Parramatta Vol. Co., No. 1, with manual engine.
Saturday, 31 Dec.	10:0 p.m.	10:3 p.m.	Bryant-street, Rockdale	C Dwyer .....	" .....	" .....	Upsetting of lamp	Manchester, £20	Manchester, £100	A cottage of four rooms; front room and contents severely damaged by fire and water.	Rockdale Vol. Co., with one hydrant.
"	10:58 p.m.	11:0 p.m.	Kent-street, City .....	Vacant land.	.....	.....	Burning rubbish	.....	.....	A quantity of rubbish burned on vacant land .....	M.F.B., with buckets of water.
"	11:25 p.m.	11:25 p.m.	Gloucester-street, City	" .....	" .....	" .....	" .....	.....	.....	" .....	M.F.B., with one hydrant.

\* Outside M.F.B. area.

† D. Watson, aged 25, slightly burned about the hands and face; attended to at house.

‡ Emily Lovell, aged 19 years, slightly burned on left hand.

† Previous fire, 14th October, 1894.

§ Previous fire.—13th November, 1890.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## EXPORT TRADE OF THE COLONIES.

(CORRESPONDENCE AND MINUTES IN CONNECTION WITH THE CLAIM OF THE GOVERNMENT OF VICTORIA FOR PAYMENT OF £250 11s. 5d., AS PART OF THE EXPENSES INCURRED BY THE HON. J. W. TAVERNER, M.P., IN PROSECUTING INQUIRIES IN GREAT BRITAIN IN CONNECTION WITH THE.)

*Printed under No. 15 Report from Printing Committee, 21 December, 1899.*

Mr. L. Whitehead to The Minister for Mines and Agriculture.

Dear sir,

Department of Agriculture, Melbourne, 10 February, 1899.

Mr. Taverner directs me to forward to you the accompanying copies (ten) of the Report of the recent Conference of Ministers of Agriculture.

Yours, &amp;c.,

L. WHITEHEAD.

Mr. Freedy, see that all necessary instructions are given about these matters.—D. McL., 15/2/99. All action completed as far as N.S.W. is concerned.—W.P., 17/2/99. Corres: Send a copy to Mr. Bruce and to Mr. Stephenson. Ask Mr. Bruce to note that copies of Amended Brands Bill are to be sent to the other Colonies for consideration.—W.P., 17/2/29. A.S., 20. Copies to Mr. Stephenson and Mr. Bruce. Mr. Bruce asked as to Amended Brands Bill.—22/2/99. Copy sent to Mr. Campbell.—W.P., 23/2/99.

1899.

VICTORIA.

REPORT of the Intercolonial Conference of Ministers of Agriculture, held in Melbourne, January, 1899.

## INTERCOLONIAL CONFERENCE OF MINISTERS OF AGRICULTURE.

THE Ministers of Agriculture for the Colonies of New South Wales, Victoria, South Australia, and Queensland met in Conference at the Public Offices, Melbourne, on Thursday and Friday, the 12th and 13th January, 1899, the Colonies being represented as under:—

New South Wales	...	...	...	...	Hon. J. Cook.
Victoria	...	...	...	...	Hon. J. W. Taverner.
South Australia	...	...	...	...	Hon. R. Butler.
Queensland	...	...	...	...	Hon. J. V. Chataway.

Mr. Taverner was elected to the Chair, and intimated that he proposed inviting the consideration and discussion of the following subjects, as matters in which the Colonies were mutually concerned, viz. :—

- Proposals of Mr. J. H. Geddes—Australasian Food Supply Distribution Scheme.
- Joint action for reduction of Ocean Freights.
- Direct trade with Manchester.
- Trade with South Africa.
- Tick Disease.
- Uniform Stock Quarantine Regulations.
- Other questions affecting producing interests.

*Proposals of Mr. J. H. Geddes—Australasian Food Supply Distribution.*

The attention of the Conference was first directed to a scheme which, as an outcome of a resolution adopted at the previous conference of Ministers held in February, 1898, had been submitted to the various Colonies by Mr. J. H. Geddes, of London, for the establishment of a depôt in London, in conjunction with provincial agencies throughout Great Britain, with the object of providing for the cool storage and more economic distribution and realization of perishable products imported from Australia. The proposals



put forward involved the payment of a subsidy by the Governments concerned to a company proposed to be formed for the purpose of carrying the scheme into effect, or the guaranteeing of interest on one-fifth of the company's paid-up capital.

The Conference agreed that improved methods are urgently required in connection with the landing and distribution of perishable products exported from Australia, in the direction of providing a more satisfactory means of conveying frozen produce from the ship's side to cool storage to insure its being kept in good condition, and of providing cool storage accommodation of such extent as would give facilities for the more advantageous marketing of the products dealt with, at the same time enabling a ready assurance to be afforded to purchasers and consumers as to the distinctively Australian origin of such products.

After careful consideration of these circumstances, however, and full discussion of the proposals in all their aspects, the following resolution on the subject was adopted :—

“That this Conference, having fully considered the proposals of Mr. J. H. Geddes for the establishment of a central depôt for perishable products in London, with distributing provincial centres in various parts of Great Britain, is of opinion that for the purposes aimed at such proposals are unacceptable.”

In view, however, of the great importance of the subject to Australian producers, and of the necessity of obtaining all information available as a preliminary to combined action, the following further resolution was agreed to :—

“That this Conference is further of opinion that steps should be immediately taken with the object of securing better methods of handling, storing, and distributing our products in Europe, and that with a view to achieving this result a representative of the subscribing Colonies should be despatched to Great Britain to make all necessary inquiries.”

#### *Joint Action for reduction of Ocean freights.*

In introducing this question, Mr. Taverner drew attention to the fact that the currency of the existing contracts with the mail steamship companies for the conveyance of perishable products from Victoria would expire in April next, and expressed the opinion that if a guarantee could be given by the Colonies conjointly for a certain specified annual tonnage of freight for a term of years an appreciable reduction would in all probability be obtained in the rates from all the Colonies. A guarantee of freight to an amount to be agreed upon would, he thought, be required, and, while the payments made during the recent years of drought upon produce exported through the Victorian Department of Agriculture had averaged a considerable sum, he considered that, as the advantage of any reduction which might be obtained by Victoria acting alone would almost certainly be gained also by other Colonies, the matter was one in which joint action might reasonably be taken.

Mr. Cook and Mr. Chataway pointed out, however, that their Colonies were situated differently from Victoria in regard to this question, inasmuch as in the case of New South Wales the great bulk of the frozen produce exported was shipped independently of the agency of the Government, while exports from Queensland reached their destination by entirely different routes, and in different lines of vessels.

After consideration and discussion of these and other circumstances, the Conference resolved—

“That, in view of the different systems existing in connection with the export trade in the various Colonies, it is considered inopportune at the present time to make any joint arrangements as to ocean freights.”

It was, however, considered possible that the Colonies of Victoria and South Australia might, under existing circumstances, enter into combination, and it was eventually agreed that Mr. Taverner, in conducting negotiations for the new contracts for Victoria, should have regard to the possibility of an arrangement beneficial to the other Colonies, and should submit results to them accordingly when ascertained.

#### *Direct Trade with Manchester.*

Mr. Taverner explained the steps which had already been taken in Victoria with the object of initiating this trade. A contract had been entered into by the Government with Messrs. P. McArthur, W. McMillan, and J. Munro, of Sydney, representing the Gulf line of steamers, providing that all exports consigned to Manchester, through the Department of Agriculture, should be shipped by the vessels of that line. Owing, however, in a great degree to the canal charges and other dues imposed at Manchester, it was found difficult to conduct trade profitably. The matter had been revived by communications containing proposals on the subject which had been received from Mr. A. J. Pease, of Manchester, but after consideration of these it was resolved—

“That the Conference cannot agree to the proposals submitted for the opening up of direct trade between Australia and Manchester, considering that such proposals amount to the payment by the Governments interested of the whole cost of developing the new trade.

“The Conference is, however, of opinion that the whole question may form a subject for inquiry on the part of the representative already agreed to be deputed to report upon the question of Food Supply Distribution.”

#### *Trade with South Africa.*

In view of the great increase of settlement proceeding in South Africa, and the opportunities and demands created for the expansion of trade in perishable products, it was considered advisable that action should be taken for the encouragement of business between that country and Australia. It was therefore resolved—

“That having regard to the desirability of developing trade between Australia and Africa, the Chairman of the Conference be requested to communicate with the Minister of Agriculture in Cape Colony with a view to ascertain—

- “1. The probabilities as to interchangeable products.
- “2. Particulars as to recent suggested tariff changes.
- “3. Present facilities afforded in that country in regard to cool storage.
- “4. Generally as to the prospects of trade between the countries, including Delagoa Bay, Durban, and Beira.”

*Tick*

*Tick Disease.*

Mr. Chataway intimated that practically no fresh development had occurred in connection with the tick pest since the subject had last been dealt with by Ministers in conference. The disease had extended no further south, and the quarantine and buffer lines agreed upon between the colonies were being strictly maintained and enforced by an efficient staff of inspectors.

Mr. Butler laid before the Conference a plan showing an amendment which had recently been made in regard to the prohibitory line between South Australia, on the one side, and Queensland and the Northern Territory on the other, across which cattle are not allowed to pass southwards. A copy of the regulations relating to the alteration was also submitted.

*Uniform Stock Quarantine Regulations.*

It was pointed out in connection with this question that while uniformity already prevailed between the colonies represented as to the period for which cattle imported should be required to undergo quarantine, differences existed in the cases of sheep and pigs. It was considered desirable that all-round uniformity should be attained, and the representatives of Victoria and South Australia therefore agreed to obtain a reduction of the period of quarantine for sheep introduced into those colonies from forty to thirty days, thus bringing their regulations as to sheep into line with those of New South Wales and Queensland. In regard to pigs, the importation of which into Victoria is under present regulations absolutely prohibited, while admissions are made into the other colonies represented, subject to sixty days' quarantine, it was agreed that a uniform system of admission, subject to thirty days' quarantine, should be adopted.

It was decided to print, in connection with the Report of the Conference, a statement of the Appendix I. various quarantine periods as now proposed to be amended.

*Questions Mutually Affecting Producing Interests.*

Various subjects of common interest were introduced and dealt with as follows:—

*Quotations of Cross-bred Sheep Prices on London Markets.*

Mr. Cook submitted a report from the Chief Inspector of Stock of New South Wales dealing with the subject of the absence from the weekly quotations of prices of Australian frozen mutton cabled from London of any separate quotation for cross-bred sheep, as such. The Conference concurred with the effect of the remarks made, and agreed that the representatives of the colonies in London should be asked to take action with the object of having proper quotations made as regards both sheep and lambs.

It was further directed that the report of the Chief Inspector should be printed in connection with Appendix II the Report of the Proceedings of the Conference.

*Brands Bill.*

Mr. Cook submitted copies of an amended Bill for the consolidation of the laws relating to the branding of stock in New South Wales, in which considerable alterations had been made as compared with the Bill laid before the Conference held in February, 1898. The draft was approved of by the Conference for submission to the respective Governments, with a view to adoption, so far as practicable, in other colonies. Mr. Chataway explained that an amendment of the branding laws, somewhat on the lines of the new legislation proposed by the Bill, had recently been effected in Queensland.

*Importation of Stud Stock.*

Attention was called by Mr. Cook to the excessively high rates charged for the oversea carriage of stud stock imported into the Colonies from abroad, payments required from the New South Wales Government, in some instances, on importations from Great Britain, amounting to £100 for a single beast. After consideration of the matter the Conference resolved—

“That the Chairman be requested to institute inquiries with a view to obtaining a reduction of the charges made for the carriage by sea of imported stud stock, the results of such inquiries to be communicated to the several colonies.”

*Anthrax.*

Having in view the recent outbreak of anthrax in Victoria, the Conference decided as to the imperative necessity for uniformity of action in dealing with and extirpating the disease. Similar legislation on the subject already existed in Victoria, South Australia, and Queensland.

*Gibson's Liquid Brand for Stock.*

A trial of this brand, at which Members of the Conference were to be present, had been arranged to take place on Friday, the 17th January, and, pending information as to results, it was not considered necessary to discuss the subject.

*Fruit Export Trade.*

As the Right Honorable Sir Edward Braddon, Premier of Tasmania, had convened a Conference of Ministers of Agriculture to be held in Hobart for the consideration of matters relating to the Export Trade in Fruit, it was agreed to postpone the subject accordingly.

A cordial expression of thanks was given to Mr. Taverner, Chairman of the Conference, for courtesies and attention shown towards members.

Mr. S. Whitehead was also thanked for his services as Secretary, and the proceedings terminated.

J. W. TAVERNER, Chairman.  
JOSEPH COOK.  
R. BUTLER.  
J. V. CHATAWAY.

## APPENDIX I.

PROPOSED Uniform Quarantine Periods for the Colonies of New South Wales, Victoria, South Australia, and Queensland, as regards Importations of Stock from the United Kingdom.

Cattle—40 days.  
 Sheep—30 days.  
 Pigs—30 days.

## APPENDIX II.

Department of Mines and Agriculture,  
 Stock and Brands, Sydney, 9 January, 1899.

## MINUTE PAPER.

*Subject* :—Price of Australian "Cross-breds" should be quoted in the London Market separately from "Merino."

Our latest available returns show that there are now 5,110,541 long-wools and cross-breds in the Colony, and every encouragement should be held out to the owners of moderately-sized and small holdings in suitable country, on which sheep are kept, to breed cross-breds, not only because cross-breds under such circumstances when properly managed pay better than merinos, but also because it is by keeping cross-bred sheep that a profitable rotation of crops can be established, and the long looked for combination of tillage and grazing successfully secured. It will not pay to keep merinos in a general way on cultivated food.

While this is the case the form in which the weekly quotation of the prices of Australian frozen mutton as cabled from London (see copy last Monday's quotation as it appeared in the *Daily Telegraph* of the 2nd inst.) greatly militates against the breeding of cross-bred sheep in the Australian Colonies, inasmuch as cross-breds are quoted at the same price as merinos; whereas it is notorious that prime New Zealand cross-bred mutton has, since 1884, brought 1d. per lb. more than merino.

It may, perhaps, be said that Australian cross-breds are so inferior, compared with New Zealand, that the Australian cannot be sold as cross-breds. If this be the case it is very necessary the cause of the inferiority (if our mutton really is inferior) should be known by the breeders of Australian cross-breds; and there is no doubt but it would long ere this have been so had Australian cross-breds been sold in London as such and their defects pointed out, as they would certainly have been, by the salesman there, if they had been sold for what they really were; while, if this had been done, our breeders, knowing the reason for the comparatively low prices they received for these cross-breds, would have made the necessary effort and remedied the defects. With, however, such a confusing, if not misleading, quotation as they now receive they are kept in entire ignorance as to why their cross-breds bring such a low price compared with the New Zealand; and the outcome is that, while prime cross-breds were some time back selling in the New Zealand market for shipment as high as 16s. and 17s., ours brought no more than 8s. or 9s.; and even now, when sheep have recently been selling at lower prices in New Zealand for shipment, there is a difference of the prices of equal weight and quality of, at least, 4s. to 5s. per sheep. The fact is largely through the confusing London quotation; the price obtained in the Sydney market is no higher per lb. for cross-bred than for merino mutton, while the lowest quotation for New Zealand cross-bred mutton in London is at the very least 3d., and the highest 1d. per lb., higher than Australian merino mutton.

The Under Secretary for Mines and Agriculture.

ALEX. BRUCE,  
 Chief Inspector of Stock.

## CONFERENCE OF MINISTERS OF AGRICULTURE.

Hobart, 16th January, 1899.

Present—The Hon. J. COOK, representing New South Wales.  
 The Hon. J. W. TAVERNER, representing Victoria.  
 The Hon. R. BUTLER, representing South Australia.  
 The Right Hon. Sir E. BRADDON, representing Tasmania.

The Right Honorable Sir EDWARD BRADDON was elected Chairman of the Conference.  
 Mr. GEO. STEWARD, Secretary to the Premier of Tasmania, acted as Secretary to the Conference.

## MINUTES OF THE PROCEEDINGS.

*Quarantine.—Cattle, Sheep, and Pigs from the United Kingdom.*

On the subject of the importation of cattle, sheep, and pigs from the United Kingdom, it was agreed that the period of quarantine in Tasmania should be amended as follows:—

Cattle—	Period reduced from 60 to 40 days,
Sheep—	" " 60 to 30 days, and
Pigs—	" " 60 to 30 days,

thus bringing the Tasmanian quarantine regulations into line with the regulations in operation in New South Wales, Victoria, South Australia, and Queensland.

*Establishment of Central Depot for Perishable Products in London.*

The Honorable J. W. TAVERNER laid the two following resolutions before the Conference, explaining that they had received the approval of the Ministers of Agriculture for the Colonies of New South Wales, Victoria, South Australia, and Queensland, in Conference, in Melbourne, on the 12th and 13th January, 1898:—

- (1) "That this Conference, having fully considered the proposals of Mr. J. H. Geddes for the establishment of a central depot for perishable products in London, with distributing provincial centres in various parts of Great Britain, is of opinion that, for the purposes aimed at, such proposals are unacceptable."
- (2) "That this Conference is further of opinion that steps should be immediately taken with the object of securing better methods of handling, storing, and distributing our products in Europe, and that with a view to achieving this result a representative of the subscribing colonies should be despatched to Great Britain to make all necessary inquiries."

The Right Honorable Sir EDWARD BRADDON agreed to these resolutions, Tasmania to become one of the subscribing colonies, the expense being borne by the colonies concerned on the basis of population.

*Experimental*



## The Premier of Victoria to The Premier of New South Wales.

[Confidential.]

Sir,

Premier's Office, Melbourne, 20 September, 1899.

I have the honor to forward herewith, for your confidential information, a copy of a Report respecting a Central Depot in London for Australian products, by my colleague, the Honorable J. W. Taverner, M.P., Minister of Agriculture, and Chairman of the Agricultural Conference of 1899, on which your Government was represented.

I have, &amp;c.,

GEORGE TURNER,

Premier.

Duplicate of 99/10,410, with other papers. Put away. Ack. please.—F.K., 25/9/99. Mr. Robberds. Ackwd.—C.R., 27/9/99. The Honorable The Minister for Mines.—J.S., 27/9/99. The Under Secretary for Mines.—F.K., 27/9/99.

## CENTRAL DEPOT.

REPORT on a proposed Central Depot for the reception of Australian Products to be erected in London, to the Colonies represented at the Agricultural Conferences held in Melbourne and Hobart in 1899. By the Hon. J. W. TAVERNER, the Chairman of the Conference.

I HAVE the honor to submit the results of my investigations as to the best methods of marketing the increasing Australian produce exports to the subscribers to the Report of the Intercolonial Conferences of Ministers of Agriculture, which were held in Melbourne and Hobart in 1899.

In placing before the colonies represented at the Conference the conclusions at which I have arrived, I desire to mention the course of events of which my visit was the result.

At the Intercolonial Conference of Ministers held in February, 1898, in Melbourne, at which the colonies of New South Wales, Victoria, South Australia, Queensland, and Tasmania were represented, the following resolution was carried:—

“That inquiries should be instituted by the respective Governments of the colonies represented at the conference, as to the desirability of establishing an agency in Great Britain for the distribution of Australian produce, in combination with cool storage for the accommodation of such produce when landed.”

In consequence of this, Mr. J. H. Geddes, of London, placed a scheme before the various Governments interested, which was fully considered by the Ministers of Agriculture present at the Intercolonial Conference held in Melbourne in January, 1899.

Mr. Geddes' proposals were directed towards the improved distribution of Australian produce by the establishment of a cool store on the lower Thames, where the goods could be received direct from the ship's hold. He proposed that this depot should supply sixty small distributing cold stores in the provinces, with the object of opening up a more direct trade with these centres than was possible with the present methods of distribution.

The following resolution was eventually adopted:—

“That this Conference, having fully considered the proposals of Mr. J. H. Geddes for the establishment of a central depot for perishable products in London, with distributing provincial centres in various parts of Great Britain, is of opinion that for the purposes aimed at such proposals are unacceptable.”

In view of the great importance of the matter to the Australian producer, the members of the Conference further decided—

“That this Conference is further of opinion that steps should be immediately taken with the object of securing better methods of handling, storing, and distributing our products in Europe, and that with a view to achieving this result a representative of the subscribing colonies should be despatched to Great Britain to make all necessary inquiries.”

These resolutions were subsequently ratified at the Hobart Conference of Ministers of Agriculture.

During the discussion a unanimous belief was expressed that improved methods of landing and distributing Australian perishable products were urgently required.

The want of sufficient and suitable cold storage accommodation to admit of Australian produce being marketed to the best advantage, and the conveyance of perishable produce from ship's side to cool store, were the directions in which the present methods appeared most at fault.

The desirability of consumers being able to be certain of the Australian origin of their goods in view of the efforts the Governments and producers of Australia were making to secure their exports being uniform and of the finest quality was generally agreed upon.

In my investigations I have therefore had in view the following points:—

The necessity for reducing the number of handlings of perishable and other produce to a minimum, in order that the goods may be sold in the finest possible condition and at the least cost to the producer, enabling as high a price as possible to be returned to the consignor in Australia.

The desirability of the Australian origin of the goods being kept before the British buyer, in order that the full benefit of improvement in quality may accrue to the Australian producer.

The possibility of opening up a more direct communication with markets for Australian produce in such districts as Manchester, and increasing the hold of Australian produce in London by keeping our goods well under the notice of large buyers, through the most direct and best channels.

During my visit I have made it my business to confer with some of the largest buyers and distributors of produce in Great Britain, and from one and all I have had the most encouraging opinions as to the future of Australian produce on the market. The fact that our summer-grown goods arrive during the English winter, and that the quality of our products is beyond reproach, have convinced them that the Australian colonies will obtain an increasingly strong hold. The universal opinion is that Australian produce has only to be known to be appreciated, but I was certainly astonished at the little knowledge of our goods some of the buyers displayed.

Again,

Again, the British markets are in a position to take all the produce Australia can send, provided the quality is sound and good. There is a limitless market for food products of a good quality in Great Britain.

As the result of my inquiries, I am convinced that it is desirable that a large central receiving depôt with ample cold storage accommodation be erected on the Thames, into which all Australian produce could be received direct from the ship's refrigerated hold. This would secure the marketing of the produce in the best condition and at the least possible cost.

While I have also come to the conclusion that it would be inadvisable for the Australian Governments to interfere in any way with the actual distribution, I am satisfied that the establishment of a central Australian receiving depôt would in itself be invaluable in impressing upon buyers the Australian origin of goods. It would also bring our exports under the more direct notice of the large buyers of the metropolis.

In indicating the lines on which this proposed depôt should be run, I must preface my remarks by the statement that to ensure success it is essential that it should be worked on large and commercial lines. Any half-measured attempt would be doomed to failure, and defeat the very ends it is desired to attain.

In Britain's great markets Australian produce is at present lost. I have found buyers who seemed most likely to appreciate our exports quite ignorant of the extent and variety of our trade. Our relatively small quantities find their way into side channels, where they are consumed and appreciated. They, however, do little to aid in building up that most valuable "goodwill," which every country, as every business, should strive to acquire.

Our exports at present quite fail to make the impression their bulk and quality entitle them to.

The colonies might, with the greatest possible success, and without the least risk of individual hurt, combine in order that their exports might be marketed in Great Britain (their greatest market at present and their greatest hope in the future), with the prospect of the very best results to the producers. Surely the idea of a federated Australia carries with it the necessary corollary, a federated Australian export trade conducted on lines calculated to bring the greatest credit to the Continent, and the substantial increase of our national wealth.

The wishes of the Conference appear to be best solved by a union of two ideas: The first, a Central Depôt for the reception of all Australian produce, and the second, which I will term an Australian Exchange, where samples of our produce could be seen in the very best condition and where buyer and producer's representative could be brought into direct communication.

The combination, if possible, under one roof would be desirable, and I have come across one instance in which it is largely done. I refer to the importation of Dutch butter into London. This arrives bi-weekly by boat from Holland, which boats discharge at Brewer's Quay. On every Tuesday and Friday the buyers of Dutch butter come down to the Quay and inspect the butter landed on the previous day, which is sold by agents, whose value is regulated by a price for a standard butter fixed in Holland. The agents rent space in the stores connected with Brewer's Quay, and deliveries are made to buyers' orders.

Brewer's Quay is, however, situated in the city limits, and the business in Dutch butter is small compared with anything that would be done at the proposed Australian Central Depôt. It amounts to between 5,000 and 7,000 packages per week. Some quantities, which can be more conveniently disposed of from the agents' stores in Tooley-street, are carted over there; but, practically, the whole imports are disposed of in the manner indicated.

The depôt I should propose would be erected on the lower Thames. This position is essential, as the direct delivery of goods from ship's refrigerator into cold store, is at the very root of the question. Though this is particularly necessary for perishable products, it is also most desirable for other products, as the depôt would be erected on a site in communication with the great railway lines. At the depôt products could be examined and dispatched without entering London at all. This point is of great importance, as a great portion of our commodities are eventually sent into the provinces.

Another reason for erecting the depôt out of London is the great saving in expense, as convenient land within city limits is very costly.

Ample cold storage accommodation would be provided, and the store would be identified solely with the Australian trade, both by name and reputation.

Either space could be let out to producers' representatives, or they could be charged a rate for space occupied, or both these methods might be adopted.

The establishment of the Central Depôt on the lower reaches of the Thames would *largely* realise the desires of the Conference.

The depôt alone would certainly be a vast improvement on the present system, in which it is practically impossible for many buyers to get into contact with anyone who could supply them with a variety of Australian goods in large lines and on best terms. It is most desirable, however, that buyers should keep in continual, not occasional, touch with producers' representatives.

To overcome the difficulty I would make the following suggestion. The idea is, I may state, accessory to the central depôt, which I regard as the first essential:—

The establishment of sample rooms, which I would call exchanges, one at Smithfield for frozen produce (meat, butter, rabbits, poultry, &c.), another in the city for canned goods, wine, &c., and a third, during the Australian fruit season, in Covent Garden.

At these exchanges samples of Australian produce would be displayed in the very best condition, and the producer or his representative would be brought into direct contact with the buyer, resulting in information being obtained which would be most beneficial to the Australian producer.

Buyers would regard these exchanges as the centres where information about Australian products would be available, and where any goods offering could be purchased.

The producers, representatives, and others interested in the Australian trade, would have tables for showing samples, &c., and meetings could be held from time to time to discuss points which might arise in connection with the trade.

This system is largely in vogue in Manchester, Birmingham, and other large provincial centres.

It would bring Australian goods under the direct notice of a large number of buyers who come up to London once a week from Bristol, Cardiff, and the rest of the large towns of the west and south of England, who probably would not be able to spare the time to go down to the lower Thames in addition to going to these centres for other classes of goods.

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In addition, it would bring our products under the notice of large London buyers who frequent these markets daily.

It has, in my opinion, the twofold advantage of not interfering with the distribution in any way whatever, and utilising existing markets which, in the course of years, have acquired great reputations and large connections.

These exchanges would be in telephonic communication with the central depôt, so that goods sold on sample could be sent off direct from the store as required.

The trade from the usual sources, such as Tooley-street (the centre of the Australian butter industry), would be in no way injured, but Australian produce would be brought directly under the notice of buyers capable of buying huge quantities of produce regularly, who at present, if they do buy Australian produce, do so after it has filtered through several hands.

Sellers being so closely in touch with each other, more regular prices could be obtained, and it would be possible to fix a minimum quotation, as is done in the case of Danish butter. In this case a price is fixed every Thursday in Denmark, and wired over for a standard quality, and much disastrous cutting prevented, which so frequently militates against the interests of the producers.

My inquiries have led me to believe that large sums have been lost to the producer through this cutting by rival firms, and the opposite evil, which is quite as damaging to Australian interests, the unhealthy forcing of prices for speculative purposes.

I think that the more public sale in conjunction with the cold storage accommodation at the depôt would largely prevent the speculation in our produce. The question of a regular price is frequently not so much the regulating of supply as of co-operation to prevent interested parties forcing prices up or down.

To bring the Australian trade out of the limits of speculation into those of a fair but sure profit should be the aim of all who have the welfare of the Australian producer at heart.

The producer, it must be remembered, never gets the benefit of these great rises, while he shares in every fall, either in lower returns or lower direct offers on the plea of low prices.

It might be suggested that this would put upon some importing firms the necessity for dividing their operations over three centres. No doubt there are importing houses who sell Australian fresh fruit, canned goods, and frozen produce.

I have found, however, that the lines between these classes of produce are so sharply drawn, that to give our exports a fair chance it is necessary they should be dealt with through the particular distributing channels who deal in the classes.

Different distributors are identified with particular classes of goods, and, therefore, can dispose of them to the best advantage and in the best channels, and the more directly these distributors receive the goods the greater the gain to the producer.

In Great Britain butchers sell frozen meat, grocers sell canned goods, and fruiterers sell fresh fruit. I do not wish to suggest that there are not a great many shops in Great Britain which do not buy all these classes. In the great number of cases these are too small for the producer to hope to get into direct touch with, and they can be served with much greater effect through the large wholesale grocers. In the case of the great stores the various classes of goods are sold through different departments under the control of different buyers.

In the last class of retail shops which are put up by large public companies, the buying is done in bulk, but special buyers deal in the different classes.

If the "Exchange" idea were adopted lists of members could be circulated through the Colonies and the producer could be sure that at any rate his goods were being brought directly before the British buyer, and that sales could be traced for the information of producers. I think the point is one which the Colonies of Australia would do well to weigh carefully.

I am convinced that Australian produce has not in the past, in many instances, gone to the right quarters, which accounts for it being so little known, in spite of the fact that their good value and quality are generally recognised. Not from one or two people have I heard, "We do not see much of your products," or, "We used to buy a good deal, but lately have not had offers."

I classify the advantages of a Central Depôt under the following heads:—

- (a) The increased importance and publicity this concentration of our trade would give to Australian produce generally.
- (b) The chance it would offer of issuing reliable reports as to market prices and needs.
- (c) The satisfaction it would give producers on account of the certainty of reliable and independent reports in cases where quality is complained of, as an examination would be made at the Central Depôt before leaving.
- (d) The certain improvement of quality through fewer handlings, and no delay in discharging, and the advantages an essentially Australian wharf would have for dealing with Australian produce.
- (e) The saving in cost of marketing through lesser handlings.
- (f) The facilities it would offer for dealing with defective parcels. These, perhaps only partially bad, if not sorted would either be condemned, or, still worse, be sold at knock-down prices to a class of the trade, who would place it on the market to the detriment of our reputation. It would be easy to absolutely prohibit damaged goods leaving the depôt.
- (g) The Australian origin would be impressed on all buyers. If desired goods could be marked as having passed through the depôt.
- (h) The increase in direct contracts with the producer owing to buyers having a ready means of procuring suitable accommodation, and larger spot sales owing to buyers being under no compulsion to clear within stated periods, and the facilities it would afford the producer's representative for holding goods over a bad market.

The increased importance and publicity Australian produce would gain by a more concentrated system of marketing has impressed itself upon me in two ways. First, this publicity and recognised importance being in the nature of a real advertisement cannot but help the trade generally. Secondly, and I think that this was particularly in the minds of the subscribers to the report of the Conference, Australia does not in point of fact at present command the attention it is fairly entitled to.

I take it that it will be granted that a class of produce dealt with regularly and exclusively in one Australian centre will have a greater effect on the market as a whole than if it is sent to twenty, every now and again, not one of which is in any way identified with the Colonies. This view as to the scattering of our exports preventing their importance being recognised has been confirmed on all sides.

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"You should advertise." "These goods should be brought forward." "Where can they be obtained?" were remarks I had addressed to me time and again by prominent members of the trade at the Greater Britain Exhibition when inspecting the Victorian Exhibits, or provincial tradesmen would say, "We have not seen any of these varieties." "I do not think they come North."

The impression they intended to convey was not that this or that brand had not come before them, but that they did not know Australia produced such goods. Australian produce of that kind did not come under their notice when buying such classes of goods.

Or again, I have been told, "We like large lines, so frequently we are only asked to buy when agents have small lots that do not suit their usual customers," or, "I have bought lines and then was unable to follow on with the same thing."

In spite of suggestions as to the necessity for greater uniformity and more care in packing, the opinion as to the exceptional quality of Australian produce was absolutely unanimous.

Our reputation in such articles as butter, meat, wine, and fruit is much too valuable not to be used in pushing our other various products.

I can conceive no manner better likely to effect this end than by erecting a depôt which would concentrate our now large export trade in one central spot, from which it could be distributed at the least possible cost and with the least possible delay.

Already buyers recognise the advantages they gain by purchasing our butter or fruit, for instance, which is landed here in the winter season, though summer produce. It will require very little to force buyers to recognise like advantages in other exports, and no time could be better than the near future while the imperial spirit is active and there is an undoubted desire to give the Colonies the preference, "all things being equal."

The opportunity such a depôt and exchanges would afford for getting reliable information for the use of producers would be great. The needs of the markets must be carefully followed, and the distance Australia is from Great Britain renders it particularly necessary in her case that reliable information should be procurable. Some of the Colonies have recognised this already, and have had commercial representatives who have done most valuable work. The Danes have done the same thing.

The constant communication with buyer and seller, the actual handling of the produce would afford chances of correcting faults, which may be very small, but which just prevent "all things being equal."

Reliable information with prices current, timely notices as to likely competition would be invaluable. I have said that the markets for first-class goods are limitless. Now and again I have been told, "You are not quite up to the American style of packing." If goods are to satisfy buyers they must be packed and sent with their particular wants in mind, and at present the Australian producer undoubtedly has not the advantages the American has, who, owing to the shorter distance, can keep in closer touch with the markets he supplies.

Again new demands are springing up. Perhaps a country packs an article in a tin which has hitherto been sent in a bottle. The trade catches at the idea, and without timely notice the country outstrips its competitors, and obtains a start which it takes a long period of lower prices to catch up.

Or Australia may be in a position to compete in articles for which it was not aware there was a demand. A depôt in constant touch with the best buyers would certainly hear of such wants. The producer would rely upon the opinions expressed by such an independent and thoroughly reliable source.

Producers aiming at the premier position on the markets cannot know too much of what is thought of their goods or what their opponents are doing.

It is difficult to see how these advantages could be better obtained than by the combination of a central depôt which deals with our products in bulk, and the exchanges where we would come in contact with the actual buyers of our goods.

The actual saving, owing to the reduction of handling, appears to me to be one of the solid advantages which the establishment of a central depôt for the reception of our products would have. This saving, I am convinced, quite apart from improved prices owing to quality and other advantages of the kind, would amount to a large sum annually, and would, of course, be a *direct* gain to the producer. In almost all cases two handlings would be saved, and in many instances more.

I will take the case of a consignment of butter for a Tooley-street house, which is landed, and within a week of arrival sold for a provincial town such as Birmingham.

The importing agents have, it may be safely assumed, no cold stores of their own, and are therefore in no way bound. They simply want the storage to be efficient, and to cost no more than current rates. That both these essentials can be complied with I will show later. If the central depôt were erected, the process of handling would consist of discharging the butter in bulk into the depôt, samples only being sent to Tooley-street. When the goods were sold the parcel would be delivered to the railway.

That is two handlings:—

- 1st. Ship to depôt.
- 2nd. Depôt to rail.

At present the system usually works thus:—

The goods are discharged into a barge, and towed up the river 10 to 20 miles, and there stored. When sold they are carted to the railway station. The handlings then are:—

- 1st. Ship to lighter.
- 2nd. Lighter to wharf for storage.
- 3rd. Wharf to cart.
- 4th. Cart to railway.

Or it might be increased by the goods being taken into their own store by the importing agents, when the process would be:—

- 1st. Ship to lighter.
- 2nd. Lighter to wharf.
- 3rd. Cart to store for storage.
- 4th. Store to cart.
- 5th. Cart to railway.

A central depôt in the first case would effect a saving of two handlings, and in the second a saving of three handlings.



The gain in cases where the goods are eventually sold out of London (that is out of the ordinary cartage limits of the present centre of distribution) is very great, and I do not think I am going too far in suggesting that on this account alone the central depôt would largely result in increasing our trade in centres other than London. Places such as Cardiff, Bristol, Southampton, Portsmouth, and the great buying centres of the Midlands, would be the greatest gainers.

Frozen rabbits are largely consumed out of London, and the trade in this commodity would benefit greatly by the decreased cost of handling, and I believe the producer could look forward with confidence to a considerable increase in direct contracts from buyers in these districts.

The actual gain in the case of meat, which is to a great extent taken to Smithfield and delivered to customers' carts, is not so great. In no case, however, would the cost be more, if as much; and in the case of sales, which would be delivered by rail, the decrease in the cost would be equal to that in the case of any other product I have instanced.

The more these direct deliveries can be encouraged the better, and no factor can do more in this direction than the proof of cheaper delivery.

I am not speaking at random in this connection, and when in Manchester I actually saw over just such a store as I have suggested. It had direct delivery from the ship to the cold store, owing to same being erected by the wharf where the ship discharged. It had also direct delivery to rail either ex ship or ex store.

The store, which had been erected by one of the largest firms in Australasia—the Colonial Consignment and Distributing Company, Limited, will be practically used for Australasian produce.

In this case, before putting the method to the test of experience, the Company reduced their charges for handling 15 per cent. below London charges, on account of the reduced handlings alone. This was in spite of the fact that the firm in question had facilities in London second to none for dealing with frozen produce, and that their store in London had been working for years. I do not think I at all overstate the possibilities when I say that I believe the establishment of a central depôt would reduce the cost of handling by 25 per cent. in the case of the vast amount of our produce exports.

The actual cost of discharging such products as butter from the ship, opening for customs, and delivery to cart or railway truck, amounts to 4s. 6d. per ton, probably 3s. per ton would eventually be sufficient, whereas to discharge and carry to Tooley-street costs 8s. 6d. per ton. This is a saving of between 4s. and 5s. per ton, and the cost of cartage from store to railway, which is an additional gain, has to be added.

The members of the Conference were particularly impressed with the suggestion that improved quality would result from fewer handlings. This point has struck me very forcibly. I have taken the opportunity of inspecting shipments in the course of unloading, and have followed them through the various stages until they are in the store ready for sale to the consumer.

As an instance, I was at the docks when an Australian steamer was discharging a consignment of mutton. I was surprised at the old-fashioned methods that were adopted in getting goods into the barge. While the stores in London received the carcasses on an endless chain, and they were carried to the cool store by the most modern appliances, it was considered sufficient to sling 15 to 20 carcasses of mutton in a sheet and lower them into the barge.

They were then stowed as closely as possible, the workers, of course, stepping on the mutton. In its hard frozen state, and covered with the bag, no damage was noticeable; but when I later saw the mutton in Smithfield in process of thawing, distinct traces of boot-marks could be seen. The bags, which were perfectly white on being taken from the hold, were soiled; in a sentence—the goods were not in as perfect a condition as they might have been.

The same remark applies to butter-boxes and all our other exports, in which it is in any way desirable the outside packages should be in good trim, the result of careful handling.

I do not wish to exaggerate or to suggest that the present state of affairs is particularly bad. I think, however, that when it costs no more to do things properly, that goods should be placed before the buyers in the very best possible condition.

The journey of some 20 miles by barge may be a matter of a day, but a London fog or the turn of the tide may at any time further delay matters, or the goods may be discharged on a Saturday and have to wait for work to be resumed on Monday. Wharfingers do not send away a barge until it is filled, and will not load until delivery orders are to hand.

In this case, if there is any delay, the goods are placed on the quay, incurring charges and out of cold store.

While in the barge they are of course not freezing, and if the goods have had time to thaw, the warmer temperature affects the produce. Cases of our produce having had time to thaw before being placed in the insulated barge are not unknown, though of course not usual, and are generally the result of some such mistake as the delivery orders not coming to hand in time.

An Australian wharf with full knowledge, would of course be in a position to deal with such cases in the proper manner, and could cold store at once.

I have been told of cases of cheese, for instance, having softened to such an extent that it has taken days in cool store to recover its consistency. In such cases, if samples were drawn in the usual way, they would bend over like a tallow-candle on a hot summer's day.

It must be remembered that it is impossible for the producers' representatives to follow each barge load, and often to see all the goods unloaded. Usually they send down agents to inspect each shipment as it is landed, and arrange for samples to be sent on to the store before bulk can be brought up.

Difficulties of the kind I have mentioned must be faced at their source. In this instance it is at the ship's side. Everything possible must, of course, be done in the colonies.

If a central depôt were erected, the goods would be landed direct into cold store, or, if direct delivery were required in special cases, into the railway van.

While on the subject I should like to give my opinion, that in no cases should saving of cold storage be attempted. All through my investigations, I have found that our produce should be kept in cold store as long as possible, and I am convinced that to attempt to save expenses by placing perishable products in ordinary store is suicidal. The objection that the central depôt would mean placing all goods in cold store is immediately answered by the statement that that is exactly what I would advocate. No doubt there is in some cases no risk, and goods may be sold on the day they are received. The cost, however, would not be large, and the rule should be strictly observed.

The advantages an essentially Australian depôt would have for dealing with Australian goods are, of course, untested; but the specialising could have no other result than cheapening and improving the methods of dealing with our products. I think this would particularly apply to our canned goods. The experience would enable the cost of lacquering, labelling, and examining to be carried on in the most economical manner. Machinery would be erected for the sole purpose of dealing with Australian produce, and men employed would have had unique advantages of acquiring experience.

This specialising of work is carried out in the various London wharfs very thoroughly, and most of the wharfs have a reputation for one special class of produce.

This reputation, in some cases, goes to this distance, that buyers prefer goods lying at one wharf to those at another, on account of the reliability of their workmanship.

There are certain cases where perfect quality is particularly essential. For instance, compressed corned beef, in which Queensland is largely interested, is chiefly sold for cutting up by grocers, who sell to their poorer customers by the pound, at, say, 5d. to 6d. per lb. A bad tin is a loss to the grocer of between 1s. 6d. and 2s., and if he has any doubts, he will change the brand entirely and go on to another. The fact that he usually has a claim on the seller for such bad tins, will not prevent his changing, as the trouble of claiming is great. One bad tin (that is one tin that has been improperly examined at the wharf) may prevent the purchase of an entire parcel on a future occasion.

The examination of canned goods is a matter which requires considerable experience, and some wharfs in London practically command the trade, on account of the reputation they have gained. An Australian wharf would be at least qualified to deal with Australian goods to the best advantage.

The reputation of a country is founded on its reliability, and is formed, not by the standard of its best products, but of its worst. I have insisted very strongly on the absolute necessity for uniformity. I would insist just as strongly on the necessity for the colonies never sending forward goods that are not perfectly sound. Every package exported should be calculated to improve our reputation rather than damage it.

It is inevitable that in some cases—especially rabbits, canned goods, and fruit—that faulty parcels will arrive, whatever care is taken on the other side. Parcels, therefore, should not be allowed to leave the central depôt if there is the slightest suspicion that they are going off, or likely to go off, when the frost is out of them.

In all probability such goods would be sold by costermongers from barrows in the public streets, possibly labelled "Prime Australian produce." The goods, when they left the store, may possibly have not been absolutely bad, but a day in the broiling sun completes the mischief. A Government inspector comes round, and the goods are seized. When the case comes into the police courts, paragraphs result in all the newspapers. Anything more calculated to do our reputation harm cannot be imagined. The publicity of such a case as I have imagined would be immense.

During my visit I have seen reports of similar cases, on numerous occasions, in the public press. Every Australian will agree that no care is too great which prevents the possibility of such a result.

The opposite side of the question—the sorting of the good from the bad in order that, though the bad must be destroyed, the good may be repacked and sold—is important. This is particularly noticeable in the case of fruit. This is usually sold by public auction, being sent direct to Covent Garden, so that any fault is not noticed until the goods are before the seller.

If a central depôt were erected, I propose that the parcel should be inspected by a competent authority before it left the depôt. On arrival at Covent Garden, a sample case or so is turned out, and if spotted fruit is detected, the price is naturally low for the parcel. Possibly the proportion of spotted fruit in the parcel is small. A little care as the goods came through the central depôt would have meant the addition of shillings to the price of a case. Frequently parcels which have become partly unsound, if sorted and treated "at once," can be made practically sound. A day or so lost results in the bad ones contaminating the whole parcel. Action must be taken at once in such cases, and no place could be more suitable than a central depôt; in fact, I can think of no other remedy.

Its first care would be not to allow anything unsound to leave; but, being run entirely in the interests of the colonies, every precaution would be taken to see that perfectly sound goods were not thrown away.

I am firmly convinced that in the past Australia has lost a great deal from both these causes. The opinions I have gathered from the most prominent men in the trade in Great Britain all tend to confirm this belief, and my opinion that the only remedy is not to allow doubtful goods to come on the market at all. The ordinary wharf has, of course, no interest in the goods whatever, and probably would not be in a position to detect faults. Only a depôt under Government supervision would possess sufficient authority to act in such cases.

The desirability of increasing the number of contracts made direct between the producer in Australia and the large buyers in this country is deserving of attention in Australia. The method combines perfect safety with convenience, as such buyers are among the most prosperous and reputed in the British trade. Many producers prefer to know exactly what their goods will make rather than stand the risk of adverse markets, as is the case when goods are sent forward on a consignment basis. It is not possible to do such a trade as this altogether; but it is capable of considerable expansion if facilities were provided in the mother country. There are many large buyers who want their 100, 200, 300 boxes of butter per week, or their 500 or 700 crates of rabbits per boat, or who buy between 1,000 and 2,000 cases of canned goods at a time, who having no accommodation of their own have preferred to buy from hand to mouth. It would pay the producer to take a level price for such lines through a season, and it would suit the buyer here, who could rely upon a uniform article. What such a buyer would require, and what at present he has not got, is the chance of having the trouble of dealing with the lines taken off his shoulders until he actually requires the goods for sale.

Frequently, as matters stand at present, a buyer becomes interested in a particular brand, and is supplied with a hundred or two boxes or crates weekly during the season. There is no contract, and the buyer bargains each week until the market value is agreed upon. The agent recognises that the buyer has a regular outlet, and would not go past him. As the season gets on, if the quality is uniform, the buyer would be unable to get his customers on to another brand.

I have asked more than one of the large retailers—men who buy canned goods and other products which need no cold storage by the 2,000 case lines—why they do not fix up such contracts for frozen produce. Their reply has been much in the same terms as that given by a dealer who has an immense output

output throughout the country, not to the consumer direct, but to the small retailers who own single shops. He said, "We have considered the matter, as it is the sort of trade we do in tinned goods, but the difficulty of finding suitable accommodation for storing is too great." You know," he continued, "you cannot rely upon selling all your frozen produce within twenty-four hours. I think your suggestion of a central store would just suit us."

There is an immense and growing number of firms who deal direct with the consumers and have an absolutely regular trade, who, on account of the difficulty of storing, buy only as they require, instead of taking advantage of their certain output and fixing up season contracts. While on this point I desire to also mention the facilities more ample and suitable cold storage accommodation would offer to the producer's representative for holding goods over a bad market. I do not advocate any wholesale waiting for better markets. As a rule, goods should come regularly, and be sold as they arrive. There are occasions, however, such as rabbits, which arrive in May and June, where cold storage is absolutely necessary if fair prices are to be realised. There is frequently a glut of meat on the market, and if holders can tide over a bad time, they can rely upon fair prices, while their less fortunately placed competitors have to take the best offer, and sell, probably, to buyers who intend to store themselves.

Members of the Conference will notice that I have insisted strongly on the desirability of the agents not actually handling the goods in their own stores. There may be exceptional cases. I know there are; but in the average store it is not possible to deal with the produce to the same advantage as could be done in an Australian central depôt. There is not the slightest reason why goods should not be sold on sample, and in many cases it is done. If necessary the buyer can go down to the Central Depôt in the same way as he does in some cases at present. The great imports of Canadian cheese are largely dealt with in this manner. Bulks are stored at the railway depôt, to which the goods are brought from Southampton or the docks. Samples are sent to the store of the agent or buyer, and sales are made from these.

In the case of large lines a buyer goes down and inspects bulk, but in the majority of cases this is not necessary.

It must be remembered that there are solid savings in actual out-of-pockets in favour of the lesser handling of our products, and I do not believe that the storage of our goods at a central depôt will be in any way prejudicial to their popularity amongst buyers.

There is no reason why delivery should not be just as quick as at present. If it takes a little longer for the delivery order to reach the store, such delay would be more than compensated for by the possibility of dispensing with cartage and the time wasted in obtaining same.

All through my visit I have found buyers most enthusiastic about the idea of a central depôt, and it is because I believe it will tend to popularise our products, that I have formed so strong and favourable an opinion.

Having fully stated the grounds on which I have based my opinion, I will give a short idea as to the type of erection I would suggest.

The position must be on the lower Thames. The nearer the existing docks the better, and I would propose a spot between the Tilbury and Albert Docks. It is essential that the depth of water should be sufficient for the very largest boats to unload.

The size would have to be large, as I have intimated that I believe the success of the scheme depends upon the whole-hearted support of the Colonies interested, and accommodation would have to be provided for all classes of produce exported from Australia.

It would be necessary to have room for at least five vessels to unload at once in order to cope with the rush at certain seasons.

A cold storage capacity of at least 500,000 carcasses would be essential in order to provide for contingencies, and it would be necessary to have facilities for increasing such accommodation. If necessary, such erections as grain elevators and lairages could be provided.

The cost of such a store with ample ordinary storage to supplement the refrigerated chambers would, I think, reach about £250,000. Cold storage accommodation could be added to such a depôt for considerably less than the 10s. per sheep, which may be taken as a rough gauge for stores of less than 100,000 sheep capacity. Probably 3s. or 4s. would be an outside amount per sheep capacity. The London and South-western Railway Company, realising the great imports of Canadian and United States produce require facilities at the Southampton Docks, are erecting cold stores to hold 615,000 sheep and lairages for 2,000 head of cattle. The cost of this will be about £100,000. In the case of the Australian Central Depôt, large warehouses, bonded stores, and the cost of the land would have to be added, in addition to providing railway facilities.

The figure I have given, £250,000, is, I think, a reasonable one considering the convenience and advantage the Colonies would derive from it.

It would be necessary to connect the depôt with the existing railway lines, the Midland, the Great Northern, the North-western, the Great Western, and the Great Eastern, which are already in connection with the Royal Victoria, West India, and Tilbury Docks. These lines comprise practically all the great lines of the Island, and would enable goods ordered off from the depôt on one afternoon to be landed at almost any important station in Great Britain on the following morning.

I regard this connection as essential and well worth the outlay, and the opportunities I had when visiting the Manchester Docks, where this system is thoroughly carried out, have confirmed my impression.

The interest which the store should provide for over and above working expenses would amount to about £10,000, and in view of the satisfactory returns such businesses make to their proprietors in London, I anticipate that after covering this we shall be able to make considerable reductions on the lowest present rates. The desirability of forming a sinking fund could also be considered.

The first source of revenue would be landing and delivery charges, as apart from dock dues which, as far as possible, should not be levied. On such an article as butter landing and delivery charges would amount to about 4s. per ton. On 10,000 tons this would mean £2,000. Cold storage, assuming each parcel stayed a week, which would be the minimum, is usually about 10s. a ton. On 10,000 tons of butter, this amounts to £5,000. Storage on rabbits for one month, in addition to receiving and delivery, costs about 30s. per ton. There is also the examination and labelling of canned goods, the charge for which is, at present, usually 6d. per case, and the storage of same which comes to about 2½d. per week for twenty cases of the size of, say, twenty-four 2-lb. tins of preserved rabbits.

Or I will put the case in another way.

A

A usual rate for receiving and delivering meat, say sheep averaging 56 lb., is one-ninth of a penny per lb., including one month's storage. The capacity of the store would be 500,000 carcasses of this size. If the store were filled for nine months of the year at such a rate, the income would work out at £100,000 per annum. This, of course, refers to the refrigerated space only.

The last balance-sheet of a large public company, engaged in this very trade, and on similar lines intended at the central depôt, showed, after payment of interest on debentures and preference shares, a balance of 6 per cent. to ordinary shareholders. The actual earnings in this case amounted to over £30,000, which, however, included commission.

I need not repeat that my suggestions imply that all goods of a certain nature must be discharged at the depôt. There can be no doubt that if current rates were charged there would be a large margin that could be returned to the producer in the form of reduced rates.

As I mentioned earlier in my report, efficiency and low rates are the only requirements as far as the trade on the other side of the water are concerned. Efficiency, with the advantages of Government enterprise with unlimited capital and no desire to profit, can be taken for granted, and rates at the lowest limit are equally certain.

With reference to the building of such a depôt, I need scarcely do more than point out how certain it is that the future development of trade will be between Great Britain and her colonies.

I think I have now fully covered the ground which leads up to the final position.

That is, that for success a Government enterprise is necessary. No private company, however successful—and I think it might be very successful—could represent the interests of the producer. In fact, I believe the success of the company would be in the inverse ratio to the good of the producer. I think the danger of establishing a monopoly would be too great in the case of a private concern, and I believe this objection appealed forcibly to members of the Conference, when the subject was under discussion in Melbourne in January, 1899.

I do not agree with Government interference with distribution, nor do I believe such interference would help the trade. If it is desirable to open shops in provincial centres, in the manner of the Argentine Meat Trade, I believe private enterprise, as in the case of the Argentine, will do so, and probably with far more satisfactory results than would be the case if a Government attempted to do it.

I have shown that the proposed depôt would be a great benefit to our expanding trade in food products, perishable and otherwise, and a great safeguard to our reputation.

The capital required is, under the circumstances, small compared with the benefits that must necessarily accrue.

The competition Australia has to meet is great, and in spite of the freight, which handicaps us, our natural advantages are such that, with proper facilities, we must take a front place in the race for trade.

Present facilities, with the needless expense and risk of damage to our quality are, however, not proper, and this is one direction in which Governments can interfere with advantage.

It is to enable the producer to obtain the highest possible return for his produce, and at the same time to preserve and improve the reputation of the exporting colonies of Australia on the British market that I submit these recommendations. They will, I feel sure, if acted upon, result most beneficially to interests that are national and entitled to Government sympathy and action.

J. W. TAVERNER.

Board for Exports.—Mr. Taverner's report submitted:—Perusal of Mr. Taverner's report reveals practical identity with attached minute of Mr. Wildridge, dated three and a half years ago, and recommended strongly by this Board, and further, with the distribution and storage scheme of Mr. J. H. Goddes. His scheme is therefore quite in accord with the views of the Board, except that it is to be feared that, Victoria being already in the field, any mutual arrangement for marketing of produce under this scheme would give undue prominence to that Colony to the detriment of New South Wales, from which the idea of direct representation originally emanated. Mr. Wildridge's scheme will be seen to go much more deeply into the question, and to give exact estimates of cost and capacity. The only question therefore is whether it would be better to merge the interests of this Colony in a united effort to capture the British trade under the initiative of Victoria, thus taking a minor place, or endeavour, by adopting some of the suggestions made from time to time by this Board, to make an independent position for ourselves in the British market—at present there is a strong tendency to look to Melbourne as the leading port and Victoria as the only important Colony in the group.—J.S., 29/9/99. Under Secretary.

Submitted for Minister's information. There is no action that I can see can be taken in the matter at present. The whole subject is one that should engage the attention of a commercial agent in London, if the Government decide to make such an appointment. The matter may perhaps be brought forward in a month's time.—D.McL., 11/10/99. Seen.—J.L.F., 13/10/99. Resubmit after the question of Mr. Taverner's expenses is dealt with.—D.McL., 11/11/99. Resubmitted, 11/11/99.

Treasury Department, Board for Exports, 5th February, 1896.

MEAT EXPORT TRADE.—By JOHN WILDRIDGE.

A FULL report on the export of meats would entail more time than I could spare, or you afford for consideration. I will, therefore, with your permission, only deal with the matter in the way of most interest to us as an Export Board, in anticipation of recommendations from the Conference of Meat Exporters, and after which we may be able to advise the Government how the industry could be best assisted. At present we have to deal with the article frozen and preserved in tins, but hope that ere long the export of chilled meat will be prominently to the front. Since the first trial shipment of frozen mutton left Sydney, up to the end of 1895, the progress has been indifferent as compared with New Zealand.

The

The yearly totals of frozen meat exported from the Colony of New South Wales during the last seven years being as follows, taking weight per carcase of mutton at 45 lb. :—

	cwt.	Sheep.
1889 ... ..	37,868	94,249
1890 ... ..	72,304	179,956
1891 ... ..	105,013	261,365
1892 ... ..	223,074	555,206
1893 ... ..	220,584	549,009
1894 ... ..	339,404	844,738
1895* ... ..	455,674	1,134,122

\* Also, 152,144 cwt. beef.

This last year a marked improvement has taken place, and, in comparison with the years before, the results are such that, if we can only add a small margin of profit to the grower, New South Wales should at an early date head the export countries for mutton, and there is no reason why beef should not also maintain a good place.

Without dealing with the quality now exported, there are other important points which can well be discussed as bearing on the export trade :—

- 1st. Competition with other countries.
- 2nd. Freight charges and regular shipments.
- 3rd. Cold storage in London or elsewhere, and distribution.

Our greatest competitor, so far as flocks are concerned, is the Argentine Republic with 81,500,000 sheep, as against 57,000,000 in this Colony; and, as showing how the exporters from that country are awakening to the possibilities of more serious competition, we have lately had information that they will reduce their sale prices and open retail establishments all over Great Britain. This we may fully expect, and with our mutton selling, as at present, for 2½d. per lb. in London, under existing charges it would be impossible for us to compete against them successfully; and the freezing establishments now in existence here would find they have works but no mutton to freeze, as graziers would have more profit out of boiling down for tallow only. The freezing companies have already reduced their charges from ½d. to ⅓d., and lately have instituted a further reduction by including the chilling works charges in their ⅓d. With an increased business they may be able to reduce another ⅓d. or ⅓d. per lb. for receiving, freezing, bagging, and delivery—only double the London charges for receiving and storing for four weeks. When we consider that freezing costs three times as much as storing, you will readily recognise that operations here are economically carried on, requiring close supervision to leave a margin of profit. That other charges will have to be modified to meet the demand for reduced consolidated charges is apparent, the principal item being that of freight, both in railway haulage and steamer.

Railway haulage for a distance of 350 miles costs 202d. per lb., or slightly under ½d. per lb., and the average steamer freight is ⅓d. per lb. Double our present export, and, like the freezing works, the Railway Commissioners should be able to lower their charges, say, an ⅓d., and the steamers an ⅓d., as, in the latter case, owners will not require to go seeking for cargoes. The saving of time, port dues, and coal would make up the difference in present rates.

London charges are composed of—1st, storage charges average ⅓d.; 2nd, agency charges average ⅓d. full; or total, 28.

The first appears excessive as compared with our freezing rates here for the accommodation provided, as the stores are frequently blocked and the frozen meat has to be sacrificed. To meet this I would suggest that the Government of this Colony erect cold storage premises in London of a capacity equal to holding 500,000 carcasses of mutton. The cost of such a work would be about £120,000, including buildings, machinery, and land, and the working expenses, including interest on capital and depreciation, would be about £23,600 per annum. At a charge of one-half present London rates, or ⅓d. per lb., on an export of 3,000,000 sheep per annum, the Government would have a revenue of £35,000. (See calculations attached.)

We cannot very well deal with the agencies for the selling of the meat, but, with a combination on the part of exporters, these charges should, without doubt, also be considerably reduced. On the basis of an export of 3,000,000 sheep per annum charges should be :—

1st. Killing, chilling, freezing, and delivery	...	...	...	...	312
2nd. Railway haulage	...	...	...	...	125
3rd. Freight...	...	...	...	...	687
4th. Insurance	...	...	...	...	070
5th. Storage	...	...	...	...	032
6th. Agency sales	...	...	...	...	125
7th. Cost of mutton (for merinos)	...	...	...	...	750
					<hr/> 2101
For cross-breds 50 per cent. more, or	...	...	...	...	<hr/> 2476

This would place us in a position to compete against any other countries. The foregoing would be about the lowest price obtainable in London, and would ensure a small profit to all concerned. With higher prices it is possible that the several contracting parties should also receive a *pro rata* benefit. My suggestions would be, therefore, as follows :—

- 1st. Assist the export from this Colony to an output of not less than 3,000,000 sheep per annum, or the equivalent, including beef. Arrange for grading and supervision of shipments.
- 2nd. Reduction of railway haulage and freezing charges.
- 3rd. Arrange shipping to sail from this port at regular intervals, *via* Australian ports only.
- 4th. Erection of cold storage in London.

In the foregoing suggestions there are no insuperable difficulties, and indeed if we do not adopt some such ideas, we will find other colonies ahead of us, notably Queensland, as my firm is in possession of information that the latter intends proceeding somewhat on the foregoing lines.

It may not be out of place to remark that the system of refrigeration on board steamers is not all which is required, Allowing that we take every care in the manipulation of the dead meat before being put on board ship, the machines on the steamers are not all suitable for other requirements. The principle of the compressed air machines being such as to require a large amount of hydro-carbon oils being injected into the compressing cylinders to keep them working smoothly, this oil is volatilized and passed over into the holds and distributed with the cold air; frozen meat will not suffer much on this account; but for butter, cheese, or fruit the subject is one which in a contract made by the Government should receive careful consideration. With the view of inducing shipowners and those likely to cater for the carrying of our produce, regulations should be adopted which would require steamers to be fitted with refrigerating machinery capable of dealing satisfactorily with the several products to be carried.

Chilled meat in the place of frozen will shortly without doubt prove a step in advance of the frozen by enhancing values in London, and will compete directly with the American. In this direction my firm has been making a series of experiments in conjunction with one of our large shippers, at considerable expense, how long meat will actually keep in good condition, with the result that we have sent chilled meat from here to Queensland carried as ordinary goods in the guard's van during the present exceptional hot weather after fifty-five days hanging, and then eaten with relish, being both sound and sweet. This would be a sufficient assurance that it could also be delivered on the London market; but as it will take more space on board ship, more care in transit, and special arrangements for automatically regulating the temperature not to vary more than one degree during the whole voyage, the cost of a trial shipment by a single company would be considerable, but as it would be to the benefit of all probably the Government might consider such a shipment as a national one, and be at the expense of same, excluding cost of meat. I append copy of letter received from Mr. R. Ferguson, expert surveyor to Queensland Government, in reference to chilled meat.

To fully realise all the profits which should accrue in the exportation of meats; greater enterprise, and a thorough knowledge of every means which can be adopted in the preserving of meats by timing, and the treatment of by-products, &c., as is carried out in America, would prove of immense value. This comprehensive information would take months of close study, close inspection of the several processes to be undergone, and a thorough knowledge of the many mechanical applications used in reducing to healthful and profitable products, what are to us at present sanitary nuisances, and no better opportunity could offer for the Government to assist in this development than in connection with any proposed new abattoirs. Although we have already in existence the following inland chilling works:—Bourke, Nyngan, Dubbo, Forbes, Carrathool, Narrandera, Young, Narrabri, Gunnedah, Werris Creek, and Tenterfield, also Deniliquin and Aberdeen Freezing Works—a local slaughtering establishment we may deem as indispensable, and where, as already mentioned, a complete plant to deal with all by-products would not only prove a profitable investment, but, could also be the ensample necessary for the inland works, which at present cannot afford to experiment.

In conclusion, I would add the foregoing is only a brief summary of this very important business, one in which my firm has taken a very deep interest, and hope to see it second only to that of wool, while the two scientifically combined would materially enhance our land values and open resources in which our surplus labour could be profitably employed.

Yours obediently,  
JOHN WILDRIDGE.

Brisbane, 30 December, 1895.  
Messrs. J. Wildridge and Sinclair, Consulting Engineers, Sydney.

Dear Sirs,

The piece of chilled meat kindly forwarded to me by mail came to hand on the night of the 23rd instant, in splendid condition, and was of prime quality when eaten at my table on Christmas Day, the marbled undercut being generally appreciated.

I have been agreeably surprised at the sound condition of the meat upon arrival at Brisbane, temperature and weather being considered, but more so on its keeping sound after being cooked up to date, as I had some of it for breakfast this morning, enjoying it very much.

I thank you very sincerely for sending me this Christmas treat, as beyond the actual enjoyment of eating it, the test of carrying chilled meat for such a distance, exposed to atmospheric influences at this season of the year, is most interesting.

I am, yours sincerely,  
ROBT. FERGUSON.

COST OF INSULATED CHAMBERS.

	£	s.	d.
Storing only may be taken at £100 per 1,000 sheep; add external walls and roof, £50—			
£150:—Say storage accommodation for £500,000 sheep would cost in this country ...	75,000	0	0
One triple expansion machine, each engine driving a double-acting ammonia compressor, and each compressor equal to making 20 tons of ice, would cost £7,000, and would maintain a freezing temperature storing 200,000 sheep. Two machines would practically work the above establishment, but one machine would be required as spare:—Three machines would therefore cost .....	21,000	0	0
Fitting up, including ducts and insulated walls .....	3,000	0	0
Two pumps for circulating water, at £1,000 each .....	2,000	0	0
Electric light and machinery .....	1,500	0	0
Elevators, conveyors, and lifts .....	2,500	0	0
Boilers—three in number—300 I.H.P. each .....	1,500	0	0
Boiler erection, and chimney .....	500	0	0
Feed pumps and water pipes .....	1,000	0	0
	£108,000	0	0
Allow 15 per cent. less for erection in London.....	16,200	0	0
London cost .....	£91,800	0	0
Allow for purchase or long lease of land .....	25,000	0	0
Total cost should, therefore, not exceed.....	£116,800	0	0

Interest

Interest and depreciation on buildings and plant, per annum :—			
First charge on cost .....	3	per cent. interest on £116,800 .....	£3,504 0 0
Depreciation .....	7½	” ” 91,800 .....	6,883 0 0
Renewals and repairs.....	2½	” ” 91,800 .....	2,243 0 0
Insurance .....	1	” ” 91,800 .....	918 0 0
Rates (say) .....	2	” ” 91,800 .....	1,836 0 0
			£15,384 0 0
Working Expenses, @ per month :—			
1 Manager .....	£50	0 0	
1 Assistant .....	25	0 0	
6 Clerks .....	36	0 0	
1 Chief Engineer .....	20	0 0	
1 2nd do .....	12	0 0	
1 3rd do .....	8	0 0	
1 Electrician .....	8	0 0	
6 Firemen .....	30	0 0	
6 Greasers .....	30	0 0	
50 Labourers (say).....	200	0 0	
			Per Ann.
		£419 0 0 =	£5,028 0 0
Coal, 10 tons per day .....	225	0 0	
Engine Stores .....	20	0 0	
Other stores, water, &c.....	20	0 0	
		£265 0 0 =	£3,180 0 0
			£8,208 0 0
			£23,592 0 0
Receive 3,000,000 sheep per annum; average weight, 45 lb. = 135,000,000 lb., @ 1/10 d. per lb.			£35,156 5 0

The Premier of Victoria to The Premier of New South Wales.

Sir, Premier's Office, Melbourne, 27 October, 1899.  
 I beg to inform you that the travelling and other expenses incurred by the Honorable J. W. Taverner, Minister of Agriculture of Victoria, in prosecuting inquiries in Great Britain in connection with the Export Trade of the Colonies, as desired by the Conference of Ministers of Agriculture, which met in Melbourne and Hobart early this year, amount to the sum of £595 3s.

I enclose herewith an apportionment of this amount amongst the four Colonies represented at the Conference, calculated on the basis of population, and I shall be glad to receive, at your convenience, a remittance for the sum of £250 11s. 5d., shown by such apportionment as your Colony's share of the expense.

I have, &c.,  
 GEORGE TURNER,  
 Premier.

Mr. Robberds.—F.K., 31/10/99. Acknowledged.—C.R., 1/11/99. The Honorable the Minister for Mines and Agriculture.—W.J.L., 2/11/99.

*Expenses of Inquiries respecting Export Trade.*

APPORTIONMENT between New South Wales, Victoria, Queensland, and Tasmania, according to the population on 31st December, 1898 :—

	£	s.	d.
New South Wales...	250	11	5
Victoria ...	218	15	8
Queensland ...	92	15	9
Tasmania ...	33	0	2
	£595	3	0

The Under Secretary for Mines.—F.K., 3/11/99. Letter written to Mr. Cook.—20/11/99. In three days. Re-submitted.—23/11/99.

The Under Secretary for Mines and Agriculture to The Minister for Mines and Agriculture.

Dear Mr. Cook, Department of Mines and Agriculture, Sydney, 20 November, 1899.  
 The Government of Victoria has submitted an account to this Department asking for the payment of a sum of £250 11s. 5d., being part cost of the travelling and other expenses incurred by the Honorable J. W. Taverner in prosecuting inquiries in Great Britain in connection with the export trade of the Colonies. It is stated that the visit was made as the outcome of a Conference of Ministers of Agriculture held in Melbourne and Hobart early in the year; and as you were the Minister who represented this Colony, I am desired by Mr. Fegan to ask if you will kindly furnish him with your views upon the matter, and as to whether the account is one which this Colony should be called upon to pay.

Yours, &c.,  
 D. C. McLACHLAN.

Dear Mr. McLachlan,  
 At the time of the correspondence I did not expect the charge would be made. I do not think it should have been preferred under the circumstances. Perhaps it should be paid.

Yours, &c.,  
 J. COOK.

Minute.

## Minute.

Department of Mines and Agriculture, Sydney, 23 November, 1899.

Precis *re* claim of the Government of Victoria for payment of £250 11s. 5d. for the Hon. J. W. Taverner's Report on the Export Trade.

In January last a Conference was held in Melbourne, which was attended by the Ministers for Agriculture of Victoria, New South Wales, Queensland, and South Australia, and at which a resolution was passed:—

“That this Conference is further of opinion that steps should be immediately taken with the object of securing better methods of handling, storing, and distributing our products in Europe, and that, with a view to achieving this result, a representative of the subscribing Colonies should be despatched to Great Britain to make all necessary inquiries.”

The Conference afterwards adjourned to Hobart, when Sir Edward Braddon, on behalf of Tasmania, agreed to the resolution, the report of the meeting stating:—

“Tasmania to become one of the subscribing Colonies, the expense being borne by the Colonies concerned on the basis of population.”

The Conference was held *in camera*, and the report does not disclose if any definite arrangements were made as to whether any delegate was selected to visit Great Britain; but in February following, Mr. Taverner wired:—

“Leaving for London next month. Are you agreeable I should make inquiries *re* food supply distribution in accordance with resolution recent Conference?”

“(Signed) J. W. TAVERNER.”

To this Mr. Cook replied, “Yes.”

The Victorian Government now submit an account for £250 11s. 5d., which they state is the proportion, calculated on the basis of population, due by New South Wales of the expenses incurred, which total £595 3s.:—

“By the Honorable J. W. Taverner, Minister of Agriculture of Victoria, in prosecuting inquiries in Great Britain in connection with the export trade of the Colonies, as desired by the Conference of Ministers of Agriculture which met in Melbourne and Hobart early this year.”

With the view of ascertaining whether this Colony is liable for the sum applied for, Mr. Cook, who represented New South Wales at the Conference, was communicated with, and reports that:—

“At the time of the correspondence I did not expect the charge would be made. I do not think it should have been preferred under the circumstances. Perhaps it should be paid.”

“(Signed) J. COOK.”

It is noted that South Australia, whose Minister signed the report, and whose proportion of expenses would be about £75, has not been included in the apportionment of the expenses.

D. C. McLACHLAN.

Letter sent to Mr. Martin (Victoria) for particulars.—D. McL., 29/11/99. In a week.

The Under Secretary for Mines and Agriculture to The Secretary for Agriculture, Victoria.

Department of Mines and Agriculture,  
Sydney, 29 November, 1899.

My Dear Mr. Martin,

With reference to the account, amounting to £250 11s. 5d., which has been submitted to this Department for its portion of the expense of the inquiries instituted in Great Britain by Mr. Taverner, in connection with the Export Trade of the colonies, I am desired by the Minister to ask that you will be good enough to forward to me a copy of the Minute or letter appointing Mr. Taverner to act for this Colony.

In the apportionment of the expenses it has been noticed that South Australia has been omitted, and I am also desired to ask for information in regard to this.

Mr. Fegan intends to bring the matter before his Cabinet, but before doing so wishes to have all information on the subject—hence this request.

Yours, &c.,

D. C. McLACHLAN.

The Secretary for Agriculture, Victoria, to The Under Secretary for Mines and Agriculture.

Department of Agriculture,  
Melbourne, 6 December, 1899.

Dear Mr. McLachlan,

In answer to yours of 29th ultimo, *re* account for £250 11s. 5d. for portion of expenses of inquiries by Mr. Taverner in Great Britain in connection with the Export Trade of the colonies, I have the honor to inform you that at the meeting of Ministers of Agriculture, held in Tasmania, on the 16th January last, a resolution was passed on the motion, I understand, of Mr. Cook, that “This Conference is of opinion that steps should be immediately taken with the object of securing better methods of handling, storing, and distributing our products in Europe; and that with a view to achieving this result, a representative of the subscribing colonies should be despatched to Great Britain to make all necessary inquiries.” Sir Edward Braddon agreed to the resolution, and for Tasmania to become one of the subscribing colonies, the expenses being borne by the colonies concerned on the basis of population. On the 9th February Mr. Cook telegraphed to Mr. Taverner, as follows:—“Agreeable you should make inquiries *re* food supply distribution in accordance with resolution at recent conference.” South Australia, although represented at the conference, did not afterwards agree to contribute.

I have, &c.,

D. E. MARTIN,

Secretary for Agriculture.





1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

METEOROLOGICAL CONDITIONS IN NEW  
SOUTH WALES.

(REPORT BY THE GOVERNMENT ASTRONOMER RESPECTING.)

*Printed under No. 4 Report from Printing Committee, 24 August, 1899.*

[Laid upon the Table in accordance with promise made in answer to Question No. 8, Votes No. 17,  
23rd August, 1899]

Question.

(8.) Meteorological Conditions in New South Wales:—Dr. Ross asked the Minister of Public Instruction,—

(1.) Will he ascertain from the Government Astronomer if he can account on any scientific grounds for the reason of the present remarkable and unprecedented wet unsettled weather and rainfall from which Sydney and coastal districts have been suffering during the last few months; and why the drought in some parts of the interior is still a source of trouble to settlers and pastoralists?

(2.) Can he furnish any reasons, meteorological or otherwise, for the existence of such precarious and phenomenal weather?

Answer.

(1.) The drought broke up in Sydney on 28th May. In June, rain fell on 19 days; in July, on 15 days; and in August, up to the 23rd, on 20 days. There is nothing unusual about this record. Its counterpart is found in ordinary good years, in some of which there are more wet days, as the following list shows:—

Rainfall days in good years.

Year.	Number of wet days			
	June.	July.	August.	September.
1889 .....	12	20	18	19
1890 .....	29	18	4	22
1891 .....	19	18	17	15
1892 .....	15	5	4	7
1893 .....	15	15	14	15
1894 .....	7	23	20	4
Average .....	16	16½	13	4
1899 .....	19	15	20	.....

A wet period, 1881.

Number of wet days.				
January.	February.	March.	April.	May
23	16	19	26	25

It thus appears that the rain of the past three months does not differ materially from that of ordinary good years, and is much below the record of a wet period.

(2.) The cause of these wet months is found in a change in the condition, as to moisture, of very large areas of atmosphere, which instead of being dry, as it has been for four years, becomes moist and in a condition favourable to rain. The cause of this changed condition has so far been beyond the grasp of meteorologists, and I am unable to explain it.

H. C. RUSSELL,  
Government Astronomer.

23rd August, 1899.



1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

METEOROLOGICAL CONDITIONS IN NEW  
SOUTH WALES.

(RETURN RESPECTING.)

Printed under No. 6 Report from Printing Committee, 19 October, 1899.

[Laid upon the Table of the House in reply to a Question by Dr. Ross, Votes No. 29, Question No. 1,  
18th October, 1899.]

Question.

(1.) Meteorological Conditions in New South Wales :—Dr. Ross asked the Minister of Public Instruction,—

(1.) Has his attention been directed to a letter in the *Daily Telegraph* of the 25th August, from one Chas. Brown, of Rushcutter's Bay, in reference to the weather report that was laid upon the Table of the House last week in reply to a series of Questions by Dr. Ross, anent the late unusual and unprecedented unsettled weather and rainfall that has occurred in Sydney and coastal districts during the last three months?

(2.) Will he, after reading Mr. Brown's letter questioning the accuracy of the weather returns furnished by the Government Astronomer, state if he is still of the same opinion that the Colony in and around Sydney and coastal districts has not been visited by any unusual or unprecedented amount of rainfall?

(3.) Will he, for the information of the public, obtain from the Government Astronomer a return showing when and where in previous years the same unsettled weather and amount of rainfall occurred within the same limited period of three months, and the same number of wet days in the same months of June, July, and August?

Answer.

In reply to Question No. 1, asked by Dr. Ross, M.L.A., on 23rd August, I endeavoured to show that the "Present remarkable and unprecedented wet unsettled weather and rainfall, from which Sydney and coastal districts have been suffering," had its counterpart, and even more persistent rain, in past periods of three months; and I gave instances of more wet days than I have recorded during the past three months.

Mr. Chas. Brown, of Rushcutter's Bay, introduced the question of the amount of rain, which I had not dealt with, because I did not think it was asked for by Dr. Ross, M.L.A.

Mr. Brown included in his statement the rain that fell from 27th May. I take the same period—that is, to 23rd August—when Mr. Brown wrote, and I find the total was 32·83 inches, and the number of wet days 58.

For comparison, I take another wet period in which a similar storm, only heavier, took place at the end of May. The year was 1889, and the storm began on 24th May, and up to the end of August 34·44 inches of rain had fallen in 58 days—the same number of days as in the recent wet period, and 1·61 inch more rain.

Question 2.

I have made out attached Table J, in which will be found the number of days' rainfall, and the rainfall for five coastal stations, at which, during June, July, and August of 1899, the rainfall exceeded that of Sydney in the same period; and in one case, that of Newcastle, the number of days as well as quantity of rain was greater.

Question 3.

In Table II (attached) I give particulars of the rainfall during June, July, and August, 1891, at thirteen coastal stations, at which the rainfall was in excess of that during the same months in this year, but the number of days not so great. Thus proving that in the recent wet period there were more wet days in Sydney than in any other period of the same months on record.

H. C. RUSSELL,  
Government Astronomer.

TABLE I.—Rainfall for June, July, and August, 1899.

	June.		July.		August.		Total.	
	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
	Camden Haven ... ..	4·91	15	7·44	9	37·35	13	49·70
Cape St. George ... ..	17·25	17	6·57	18	13·21	19	37·03	54
Newcastle ... ..	4·81	22	5·30	20	20·07	19	30·18	61
Port Macquarie ... ..	5·40	19	8·76	16	30·62	15	44·78	50
Port Stephens ... ..	8·52	17	6·68	12	24·39	18	39·59	47
Sydney ... ..	10·89	19	3·96	15	14·89	22	29·74	56

TABLE II.—Rainfall for June, July, and August, 1891.

	June.		July.		August.		Total.	
	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
	Bega ... ..	27·14	16	4·04	9	3·91	8	35·12
Berry ... ..	25·42	15	6·05	7	3·91	12	35·38	34
Burrawang ... ..	29·38	16	1·86	8	5·58	13	39·82	37
Candelo ... ..	26·06	12	4·86	4	3·12	2	34·04	18
Cape St. George ... ..	20·46	21	10·65	13	6·07	13	37·18	47
Cobargo ... ..	27·34	19	2·06	12	2·05	11	31·45	42
Coaksville ... ..	38·67	19	6·57	16	4·96	17	50·20	52
Cordeaux River ... ..	28·64	18	2·49	11	3·34	14	34·47	43
Port Stephens ... ..	17·75	18	11·02	16	8·01	14	36·78	48
The Elms ... ..	35·58	19	4·10	7	6·12	5	45·80	31
Ulster Park ... ..	30·78	17	4·06	5	3·98	9	38·82	31
Wild's Meadows ... ..	34·45	16	5·67	7	4·23	9	44·35	32
Wyndham ... ..	26·38	14	5·32	8	7·24	4	38·94	26

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## LICENSING PUBLIC GATES, DENILQUIN DISTRICT.

(RETURN RESPECTING.)

*Printed under No. 11 Report from Printing Committee, 23 November, 1899.*

RETURN to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated 20th October, 1898, That there be laid upon the Table of this House,—

“Copies of all letters, papers, and other correspondence relating to the licensing of certain public gates in the Denilquin District, objected to by Mr. Charles Uphill and others.”

*(Mr. Chanter.)*

## SCHEDULE.

NO.	PAGE.
1. A. Jameson, Esq., to the Under Secretary for Lands, asking, on behalf of F. S. Falkiner, Esq., for permission to erect public gates at Denilquin, parishes Narrama, Blackwood, and Birgaubigal, county of Townsend, with minutes. 16th June, 1897 .....	1
2. The Under Secretary for Lands to A. Jameson, Esq. 21st July, 1897 .....	2
3. A. Jameson, Esq., to the Under Secretary for Lands, with minutes and enclosure. 28th July, 1897 .....	2
4. The same to the same, with minutes. 1st September, 1897.....	2
5. The same to the same, with minutes. 8th November, 1897 .....	2
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19. The same to F. S. Falkiner, Esq., care of A. Jameson, Esq. 12th April, 1898 .....	7
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22. J. M. Chanter, Esq., M.P., to the Under Secretary for Lands, with minutes. 22nd August, 1898.....	8
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## No. 1.

A. Jameson, Esq., to The Under Secretary for Lands.

Sir,

Denilquin, 16 June, 1897.

I am instructed by Mr. Franc Sadlier Falkiner, the lessee of the pastoral holding noted in the margin, to make application for permission to erect, under the provisions of the Public Gates Act of 1875, 39 Victoria No. 10, four gates in the positions hereinafter described, and more particularly shown on the sketches attached.

Tupper, No. 160  
Centra

298—

1.

530 copies—Approximate Cost of Printing (labour and material), £8 17s. 6d.

1. On 1-chain road, Deniliquin to Finley, at the east boundary of portion 39, parish of Berganbigal, county of Townsend.

2. On 1-chain road, Deniliquin to Finley, between portions 15 and 20, parish of Narrama, county of Townsend.

3. On 1-chain road, Deniliquin to Finley, between portions 143 and 122, parish of Narrama.

4. On 3-chain road, Deniliquin to Finley, between portions 59, parish of Blackwood, and 32, parish of Pungulgin, county of Townsend.

I enclose bank-draft, value £6 6s., to cover the necessary Departmental expenses which may be incurred. I am instructed to ask if you will favour me with your early consideration of this matter, and let me have a reply as soon as possible.

I have, &c.,

A. JAMESON.

Bank-draft, £6 6s., herewith.—H. W., F.B., 18/6/97. Receipt 89,593, 18/6/97.

The sketches supposed to accompany application have not, apparently, been received in the Department, and as the sites proposed for the gates cannot be definitely identified from the particulars supplied, it is recommended that writer be requested to furnish the illustrative sketches to which he refers.—A. J. STORRS, 19/7/97.

Yes.—F. H. WILSON, Chief Clerk, 20/7/97. A. Jameson informed, 21/7/97.

#### No. 2.

The Under Secretary for Lands to A. Jameson, Esq.

Sir,

Department of Lands, Sydney, 21 July, 1897.

With reference to your letter of the 16th ultimo, applying, on behalf of Mr. Franc S. Falkiner, for permission to erect four public gates, I have the honor to request you, as the sketches referred to in your communication have not apparently been received in this Department, and as the sites proposed for the gates cannot be definitely identified from the particulars supplied, to furnish the illustrative sketches in question.

I have, &c.,

WM. HOUSTON,  
Under Secretary,  
(per F.H.W.)

#### No. 3.

A. Jameson, Esq., to The Under Secretary for Lands.

Sir,

Deniliquin, 28 July, 1897.

I am in receipt of your letter of the 21st instant, 97/123-1, Roads, and, in compliance with the request contained therein, I herewith forward rough plan showing positions of the public gates applied for by Mr. Franc S. Falkiner.

I have, &c.,

A. JAMESON.

Forwarded to the District Surveyor for report.—A. J. STORRS (for the Chief Surveyor), 2/9/97, No. 40. The District Surveyor at Hay. Received in District Survey Office at Hay, 4/9/97. To Mr. Surveyor Broughton for report.—W. G. WALKER, District Surveyor, 8/9/97. To the District Surveyor with my letter No. 97-118 of 12th November.

#### No. 4.

A. Jameson, Esq., to The Under Secretary for Lands.

Sir,

Deniliquin, 1 September, 1897.

In respect of my application of the 16th June last, on behalf of Franc S. Falkiner, for four public gates within the holding noted in the margin, I am directed to ask if you will be good enough to expedite the dealing with the matter, as my client is anxious to have it completed as soon as possible.

I have, &c.,

A. JAMESON.

Forwarded to District Surveyor in connection with instruction of 2nd instant, No. 40.—W. WINDER (for Chief Surveyor), 11/9/97. The District Surveyor at Hay. Received District Survey Office at Hay, 14/9/97. To Mr. Broughton, in connection with instructions 97-106.—J.G.F. (for District Surveyor), 15/9/97. District Survey Office instructions, No. 97-108, folio 467. To the District Surveyor with my letter No. 97-118, of 12/11/97.—J. Broughton.

#### No. 5.

A. Jameson, Esq., to The Under Secretary for Lands.

Sir,

Deniliquin, 8 November, 1897.

In respect to the application of Mr. Franc S. Falkiner for four public gates within the boundaries of Tuppal holding, No. 160, Central Division (papers 97-123, Roads), will you be good enough to let me know if any objections to the granting of the applications have been lodged; and, if so, are they of such a character as to require an answer from me, as, in that case, I shall be glad to supply one.

I have, &c.,

A. JAMESON.

It is recommended that the writer be informed that the papers relating to Mr. Falkiner's application referred to above are at present with the District Surveyor for report, and that as yet no objections to the application have been lodged with this Department.—A. J. STORRS, 23/11/97. Inform.—H. CURRY, 23/11/97. A. Jameson informed, 30/11/97.

No. 6.

## No. 6.

Mr. Surveyor J. Broughton to The District Surveyor at Hay.

Sir,

Deniliquin, 12 November, 1897.

In compliance with your instructions No. 106, of 8th September last, I have the honor to submit the following report on an application by Franc S. Falkiner for permission to erect four gates, under the provisions of the Public Gates Act of 1875, on the roads between Deniliquin and Finley, and situated in the positions mentioned hereunder, viz. :—

- No. 1, at intersection of road with east boundary of portion No. 39, parish Birganbigal, county of Townsend.
- No. 2, at road between the south-east and north-east corners of portions Nos. 15 and 20 respectively, parish of Narrama.
- No. 3, at road between the south-west and north-west corners of portions Nos. 149 and 122, parish of Narrama.
- No. 4, at road between portion No. 32, parish of Pungulgin, and south-west corner of portion No. 59, parish of Blackwood (the last-mentioned gate site is described on tracing with application as being at the south-east corner of portion 59, but I find the site sought is at the south-west corner of that portion—*vide* A. Jameson's letter of 18th October, 1897, herewith).

I inspected the sites referred to on the 9th ultimo.

Gate sites Nos. 1, 2, and 3 are situated on the main route between Deniliquin and Finley, which deviates in order to serve the greatest number of settlers situated between those towns. This road has not been proclaimed under the Parish Roads Act. It is an important thoroughfare, as means of egress and ingress to settlers in the neighbourhood, and the mail contract is carried out by a bi-weekly coach (two horses) service. The fact of the neighbourhood being a farming district that is well developing, shows that future traffic will be important.

This road has been improved, and is maintained by the Works Department.

There is another route, situated about four (4) miles south, and parallel to the subject road, and by which the bulk of the produce from the Finley district to Deniliquin is conveyed; but the road in question will always be important, mainly on account of its service to settlers situated along it, and those settled north of Finley.

The applicant owns the land on both sides of each of the sites applied for.

The refusal of these public gates may compel the applicant to fence off this road, which would not be prejudicial to proprietary interests; but if such is done there would not be the scope for vehicular traffic which at present is allowed, especially in cases where the road is intersected by swamps and water-courses; therefore, the fencing of it will undoubtedly hasten the necessity for the construction of culverts and embankments, as the difficulty of traffic at these points is greatly alleviated by it being allowed to encroach on freehold land.

The fencing of the enclosures intersected by this road is of the usual 5 and 6 wire class, and worth from £18 to £26 per mile.

The public gates existing on this road are at Deniliquin common boundary, and at the boundary fence common to Tuppal and Deniliquin holding, situated  $10\frac{1}{2}$  and  $2\frac{1}{2}$  miles respectively westerly from site No. 1.

I am of the opinion that there is not any objection to the granting of the application for the above-mentioned gates, and the applicant has already erected new substantial double gates in each case, with 12-foot openings, and has corduroyed each gateway, and this provision is sufficient for all requirements.

I enclose a letter from Mr. Charles Uphill, objecting to the granting of these gates, Nos. 1, 2, and 3. Mr. Uphill is a large settler in this neighbourhood, and uses this road as means of access to market, &c., and I may point out that gates have existed at the sites applied for thirteen years to my knowledge, and this is the first complaint about them that has come under my notice.

Site No. 4 is situated on the direct road between Finley and Deniliquin. It is not a mail route, and is not dedicated under the Parish Roads Act. There is a large amount of vehicular and stock traffic on this road; a great deal of produce is carried along it, and there is no doubt—particularly in view of the early construction of the railway between Sydney and Finley—that in the future traffic will increase considerably.

This road is maintained by (and is in charge of an officer of) the Works Department.

There is not any other road that is likely to render this one unnecessary.

The applicant is the owner of the land on both sides of the site of gate applied for.

The character of the soil at the site of gate applied for is black loam and clay, and heavy for traffic in wet seasons.

In event of refusal to grant the permission sought, my remarks *re* site Nos. 1, 2, and 3, also apply to this case.

The fencing of the enclosure intersected by this road (which is fenced on the south side, east of site applied for), is of the usual 5 and 6 wire class, and worth from £18 to £26 per mile.

The existing public gates on this road are two, situated at Deniliquin common, and at Tuppal, Deniliquin run boundary, 22 and 10 miles respectively west of site applied for.

I consider that there is not any objection to the granting of the application for this gate, and the applicant has recently erected new and substantial double gates, with an opening of twelve (12) feet at the site, and has corduroyed the gateway; but I consider it desirable that, if possible, a condition should be imposed requiring that the corduroy should be maintained in a reasonable manner for twenty (20) feet on each side of gateway at the applicant's expense.

Time occupied in dealing with this report was—one day in field and travelling, half day in office; total, one and a half days.

I have, &amp;c.,

J. BROUGHTON,

[Enclosures.]

Dear Sir,

Recently you told me Mr. F. S. Falkiner, owner of Tuppal, intended to apply\* for three more licensed gates on the Mooney's Swamp road. There is the Common Gate and the Boundary Gate of Deniliquin run, and Tuppal, already licensed, and to add three more in less than 20 miles of road, is quite unnecessary, and is making servants of the public

Pine Hills, 23rd October, 1897.

\* I informed him he had applied.—J.B.



"to the individual." Will you kindly let me know when and where Falkiner's application will be heard, as I intend to object. This is also a mail route.

J. Broughton, Esq., Survey Office, Deniliquin.

Yours, &c.,  
CHAS. UPHILL.

To the District Surveyor, Hay, with my letter, No. 97-118, of 12th November, 1897.—J. BROUGHTON.

*Re* application for Public Gates, F. S. Falkiner.

Sir,

In reply to your inquiry, I beg to inform you that the site of the gate applied for on the three (3) chain road, Deniliquin to Finley, is at the south-west corner of portion 59, parish of Blackwood, and not at the south-west corner of portion 58.

Deniliquin, 18th October, 1897.

Yours, &c.,  
A. JAMESON,  
(*per* G.W.F.)

Mr. Surveyor Broughton, Deniliquin.

Forwarded to the District Surveyor, Hay, with my letter, No. 97-118, of 12th November.—J. BROUGHTON.

#### No. 7.

The District Surveyor at Hay to The Under Secretary for Lands.

Application for Public Gates, Tuppal Holding, No. 97-587.

25 November, 1897.

In view of Mr. Surveyor Broughton's report, enclosed, I am of opinion there is no objection to granting all the public gates applied for. The traffic along the road upon which gate No. 4 is situated is fairly heavy, but I do not think much public inconvenience will be caused.

The road upon which the other gates are situated is traversed by a bi-weekly mail; but this is not, in my opinion, sufficient ground for refusing the application; in fact, gates have been in the positions asked for for years. The applicant has erected substantial double gates, with twelve (12) feet openings, and these are sufficient for all requirements.

The conditions proposed by Mr. Broughton, as to the maintenance of corduroy for twenty (20) feet on each side of gate No. 4, is a good one, but there is, apparently, no provision in the Act for such.

The cost of dealing with this application is £4 9s., including £4 4s. costs incurred by Mr. Broughton.

W. G. WALKER,  
District Surveyor.

#### No. 8.

The Under Secretary for Lands to A. Jameson, Esq.

Sir,

Department of Lands, Sydney, 30 November, 1897.

In reply to your letter of the 8th instant, I have the honor to inform you that the papers relating to Mr. Franc S. Falkiner's application for permission to erect public gates within the boundaries of Tuppal pastoral holding No. 160, Central Division, are at present with District Surveyor for report, and that, as yet, no objections to the application have been lodged with this Department.

I have, &c.,  
WM. HOUSTON,  
Under Secretary,  
(*per* F.H.W.)

#### No. 9.

Office Memorandum.

Application by lessee of Tuppal pastoral holding for permission to erect public gates, county of Townsend.

8 January, 1898.

THREE of the four gates which applicant desires authorised as public gates are upon a road that is travelled by a mail coach.

It is recommended that he be informed (through his agent, Mr. A. Jameson), that it is not customary to grant permission for the erection of public gates across a mail coach route; but that if he will obtain and forward to this Department the written consent of the mail contractor to the erection of the gates as desired, the matter will receive further consideration.

Applicant might be further informed that in the event of the authorisation of the remaining gates applied for, it will be required of him that he corduroy and maintain in good repair the approaches thereto for a distance of 20 feet on each side of gateway, to which condition he should signify his assent.

A. J. STOPPS.

For approval.—F. H. WILSON, Chief Clerk, 10/1/98. Approved.—J.H.C., 11/1/98. A. Jameson informed, 12/1/98.

#### No. 10.

The Under Secretary for Lands to A. Jameson, Esq.

Sir,

Department of Lands, Sydney, 12 January, 1898.

Referring to your letter of the 18th October last respecting your application on behalf of Mr. F. S. Falkiner, for permission to erect four public gates across roads in the county of Townsend, I am directed by the Secretary for Lands to inform you that three of the four gates which Mr. Falkiner desires authorised as public gates are upon a road which is travelled by a mail coach, and that it is not customary to grant permission for the erection of public gates across a mail coach route; but that if he will obtain and forward to this Department the written consent of the mail contractor to the erection of gates as desired, the matter will receive further consideration.

I am to add that in the event of the authorisation of the remaining gate applied for, it will be necessary for Mr. Falkiner to corduroy and maintain in good repair the approaches thereto for a distance of 20 feet on each side of the gateway, to which condition Mr. Falkiner should signify his consent.

I have, &c.,  
WM. HOUSTON,  
Under Secretary,  
(*per* F.H.W.)

No. 11.

No. 11.

A. Jameson, Esq., to The Under Secretary for Lands.

Sir, Deniliquin, 17 January, 1898.  
 I beg to acknowledge receipt of your letter of the 12th instant, 97/123-8, Roads, in respect to four applications by Mr. F. S. Falkiner, for four public gates on Tuppal pastoral holding.  
 I enclose the written consent of the mail contractor, Mr. James Robinson, for the gates (3) across the mail route, and also Mr. Falkiner's undertaking to make and keep in repair the approaches to the remaining gate, applied for as indicated by you.  
 I have, &c.,  
 A. JAMESON.

[Enclosures.]

Sir, Deniliquin, 14 January, 1898.  
 In respect to the application of Mr. F. S. Falkiner, for three (3) gates on the mail road from Deniliquin to Finley, to be authorised as public gates, I, James Robinson, mail contractor, Deniliquin to Finley, hereby beg to inform you that I have no objection to the said gates being proclaimed public gates.  
 Witness—A. JAMESON. I have, &c.,  
 JAMES ROBINSON.  
 The Under Secretary for Lands, Sydney.

Sir, Boonoke, 15 January, 1898.  
 In respect to the latter part of your letter of the 12th instant, 97/123-S, Roads, addressed to Mr. A. Jameson, I beg to inform you that in the event of the gate in the parish of Blackwood being authorised as a public gate, I will corduroy and maintain in good repair the approaches thereto for a distance of twenty (20) feet on each side of the gateway.  
 I have, &c.,  
 F. S. FALKINER.  
 The Under Secretary for Lands, Sydney.

No. 12.

Office Memorandum.

Public Gates—Preliminary Notice.

9 February, 1898.  
 It is recommended that a notice be inserted in the *Government Gazette*, and in some local newspaper (if any), to the effect that gates in the positions hereunder described have been applied for under the Act 39 Victoria No. 10, and the Public Roads Act of 1897, by F. S. Falkiner; and all persons interested are invited to state within thirty days from the date of such notice their objections (if any) to such application, the propriety of granting it being under consideration.  
 A. J. STOPPS.

Situation of Gate.

- No. 1,842.—Double gate, not less than 12 feet wide, on the road from Deniliquin to Finley, at fence on the eastern boundary of portion No. 39, parish of Berganbigal, county of Townsend.
- No. 1,843.—Double gate, not less than 12 feet wide, on the road from Deniliquin to Finley, at the north-eastern corner of portion No. 20, parish of Narrama, county of Townsend.
- No. 1,844.—Double gate, not less than 12 feet wide, on the road from Deniliquin to Finley, at the north-west corner of portion No. 23, parish of Narrama, county of Townsend.
- No. 1,845.—Double gate, not less than 12 feet wide, on the 3-chain road from Deniliquin to Finley, at the south-west corner of portion No. 59, parish of Blackwood, county of Townsend.

For approval.—F. H. WILSON, Chief Clerk, 10/2/98. Approved.—J.N.B., 10/2/98. Notified 16th February, 1898; folio 1,257; advertised, 18/2/98. Under Secretary for Public Works with slips, 18/2/98.

No. 13.

Gazette Notice.

Public Gates—Preliminary Notice.

Department of Lands, Sydney, 16 February, 1898.  
 NOTICE is hereby given that public gates, as hereunder described, have been applied for under the provisions of the Act 39 Victoria No. 10, and Public Roads Act of 1897; and all persons interested are invited to state within thirty days from this date their objections, if any, to the granting of such application.  
 J. H. CARRUTHERS.

Gate No.	Roads No.	Applicant.	Description.
1842	97-123-12	F. S. Falkiner	Double gate, not less than 12 feet wide, on the road from Deniliquin to Finley, at fence on the eastern boundary of portion No. 39, parish of Birganbigal, county of Townsend.
1843	97-123-12	„	Double gate, not less than 12 feet wide, on the road from Deniliquin to Finley, at the north-eastern corner of portion No. 20, parish of Narrama, county of Townsend.
1844	97-123-12	„	Double gate, not less than 12 feet wide, on the road from Deniliquin to Finley, at the north-west corner of portion No. 23, parish of Narrama, county of Townsend.
1845	97-123-12	„	Double gate, not less than 12 feet wide, on the 3-chain road from Deniliquin to Finley, at the south-west corner of portion No. 59, parish of Blackwood, county of Townsend.

Mr. Bawden for report.—Jno. P., 24/2/98. Reported on attached paper.—C.B., 12/3/98.

## No. 14.

Mr. Charles Uphill to The Under Secretary for Lands.

Sir,

Pine Hills, Deniliquin, 26 February, 1898.

I notice by *Government Gazette* of the 16th instant, that Mr. F. Falkiner, of Tuppal, is applying for four (4) public gates on the Tuppal Run; three (3) of these gates are on the Mooney Swamp Road, between here and Deniliquin; and as there are two (2) public gates on this road already, the three (3) gates applied for would make four (4) public gates within 8 miles, or a public gate every 2 miles. This is making servants of the public. I beg of you to be heard in objection, as I very strongly object to any more public gates on this road, as it is my direct road to Deniliquin.

Yours, &amp;c.,

CHARLES UPHILL.

It is recommended that the writer be informed that the gates sought by Mr. Falkiner to be authorised as public gates, have been in position for some time past; that the contractor for the carriage of mails along the road crossed by the gates has sent in his written consent to the proposed authorisation; and that, in view of a special report obtained in the matter, and the fact that the law allows of the cancellation at short notice of public gates where such action is shown to be desirable, it has been decided to grant the permission sought.—A. J. STOPPS, 30/3/98.

## No. 15.

Mr. Road-Superintendent C. Bawden to The Principal Assistant Engineer.

Department of Public Works, 12 March, 1898.

*Subject* :—Deniliquin District, Electorate of Deniliquin.—Road from Deniliquin, *via* Moonee Swamp to Finley, and Deniliquin to Finley.—No. 423 on Schedule, 1897-8 Vote, £160; No. 2 not in Schedule; *re* application for public gates.

REFERRING to papers 98-1,475, I beg to report that I have inquired into the question of granting these gates, and find that, as all the sites here have been gates in existence here for many years, these have lately become dilapidated, but otherwise do not appear to have been any drawback to traffic, which on both roads concerned is so far light. The replacing of these old gates with authorised ones will be beneficial, as the owner will be compelled to keep them and the roadways in thorough order. Licenses might therefore be issued, so far as this Department is concerned, for all these gates.

C. BAWDEN,

Road Superintendent.

No objection from this Branch.—E. M. ALTMAN, 16/3/98. Assistant Engineer.—W. J. HANNA (for Under Secretary and Commissioner for Roads), 18/3/98. The Under Secretary for Lands, B.C.

## No. 16.

## Office Memorandum.

Public Gates—Erection authorised. Applicant, F. S. Falkiner, notwithstanding objection received.

(See paper 13.)

30 March, 1899.

Gates Nos. 1842,  
1843, 1844, 1845.

It is recommended that permission be granted to applicant to erect the four gates (numbered in margin) and in their positions as described by preliminary notice in *Government Gazette* of 16th February, 1898, page 1,257, and that notice of such permission be published in the *Government Gazette* and in some local newspaper.

A. J. STOPPS.

See also paper No. 13, within.—A.J.S. For approval.—F. H. WILSON, Chief Clerk, 31/3/98. Approved.—J.H.C., 4/4/98. Notified 6th April, 1898, folio 2,854. Advertised, Deniliquin, 12/4/98. F. S. Falkiner informed, 12/4/98. Chas. Uphill informed, 12/4/98.

## No. 17.

## Gazette Notice.

Public Gates authorised.

Department of Lands, Sydney, 6 April, 1898.

NOTICE is hereby given that, in accordance with the Act 39th Victoria No. 10, and Public Roads Act of 1897, permission has been granted to erect Public Gates as hereinunder described.

J. H. CARRUTHERS.

## SCHEDULE REFERRED TO.

Gate No.	Roads No.	Applicant.	Description.	Date of Preliminary Notice.
1842	97-123-15	F. S. Falkiner ...	Double gate, not less than 12 feet wide, on the road from Deniliquin to Finley, at fence on the eastern boundary of portion No. 39, parish of Birganbical, county of Townsend.	16 Feb., 1898, folio 1257.
1843	do	do ...	Double gate, not less than 12 feet wide, on the road from Deniliquin to Finley, at the north-eastern corner of portion No. 20, parish of Narrama, county of Townsend.	do
1844	do	do ...	Double gate, not less than 12 feet wide, on the road from Deniliquin to Finley, at the north-west corner of portion No. 23, parish of Narrama, county of Townsend.	do
1845	do	do ...	Double gate, not less than 12 feet wide, on the 3-chain road from Deniliquin to Finley, at the south-west corner of portion No. 59, parish of Blackwood, county of Townsend.	do

7.

## No. 18.

## The Acting Under Secretary for Lands to Mr. Chas. Uphill.

Sir,

Department of Lands, Sydney, 12 April, 1898.

With reference to your letter of the 26th February last, objecting to permission being granted to Mr. F. S. Falkiner to erect four public gates on the road from Deniliquin to Finley, &c., I am directed by the Secretary for Lands to inform you that the gates in question have been in position for some time past; that the contractor for the carriage of mails along the road crossed by the gates has forwarded his written consent to the authorisation; and that in view of a special report obtained in the matter, and the fact that the law allows of the cancellation, at short notice, of public gates, where such action is shown to be desirable, permission to erect the gates has been granted, *vide Government Gazette* of 6th April, 1898, folio 2854, a copy of which is forwarded herewith.

I have, &amp;c.,

H. CURRY,

Acting Under Secretary

(per

).

## No. 19.

## The Acting Under Secretary for Lands to F. S. Falkiner, Esq.

Sir,

Department of Lands, Sydney, 12 April, 1898.

I have the honor to inform you that the Secretary for Lands has granted you permission to erect the gates of the dimensions and in the positions described in the accompanying Schedule, and to direct your attention to the notice dated 6th April, 1898, which appeared in the *Government Gazette* of that date, folio 2854; and I have also to request that, in addition to the words "Public Gate," you will cause the numbers 1842, 1843, 1844, and 1845 to be painted and maintained thereon in legible characters, not less than 3 inches in length, as required by the Act 39 Victoria No. 10.

I have, &amp;c.,

H. CURRY,

Acting Under Secretary

(per F.H.W.)

## No. 20.

## Mr. Charles Uphill to The Under Secretary for Lands.

Sir,

Pine Hills, 24 May, 1898.

With reference to your letter of the 12th April ultimo, informing me that Mr. F. S. Falkiner had been granted permission to erect four public gates on the road from Deniliquin to Finley,—at the time your letter reached here I was away from home on account of illness in my family, and I have not had time to reply on that account and extra work the drought entails.

I must say I was very much surprised at your Department granting an application of this nature, and my reasons for saying so are—1st. At the boundary of Tuppal and Deniliquin runs there is a public gate which has been there for some time, being a wire netted boundary of runs. I do not object to this gate. Between this boundary gate and my boundary, which is 8 miles, are three out of the four gates your Department has gazetted as public gates to applicant F. S. Falkiner, Nos. 1,842, 1,843, 1,844, which is a public gate every 2 miles. This, if the travelling public are compelled by law to shut them, is a great hardship, and is very often attended with great danger both to driver, horses, and vehicles; and, as far as I ever understood the Act on the matter, it was only contemplated that public gates would be erected at reasonable places and distances. I further understood that myself and others who might wish would be given the opportunity of appearing at the Local Land Board Office, Lands Office, or Land Court in support of any objections to granting of same.

I wish to point out that these gates are on lines of fences forming sheep paddocks for the proprietor, and are generally kept shut by the public; but when it is sought by the proprietor to make it an act of servility to shut them at such unreasonable distances, I strongly object, and I have no doubt others will.

You say the contractor for the carrying of mails along the road crossed by the gates has forwarded his written consent to the authorisation. It seems strange that this should carry, or help carry, sufficient weight to declare public gates, when the same contractor does not own any land on this route, and has no further interest than sometimes he has horses on the run grazing.

You further say a special report has been obtained in the matter; therefore, I would ask, if I am entitled to it, to send me a copy of such special report; also a copy of Mr. Falkiner's application to have these gates made public gates, together with his reason for same. Can you kindly supply me a copy of the Act 39 Victoria No. 10 and Public Roads Act of 1897.

I have, &amp;c.,

CHARLES UPHILL.

Acknowledged, 1/6/98. The writer might be informed that the objections pointed out by him were fully considered when the question of granting permission for the erection of the gates referred to was being dealt with, but that for the reasons conveyed to him in letter from this Department, dated 12th April last, it was decided to concede to Mr. Falkiner the permission sought. Mr. Uphill might be further informed that departmental reports for the guidance of the Minister are treated as confidential, and copies of them cannot therefore be supplied to the public; but that copies of Act 39 Victoria No. 10 and the Public Roads Act of 1897 can be purchased at the Government Printing Office, Sydney.—A. J. STORRS, 14th June, 1898. For approval.—F. H. WILSON, Chief Clerk, 15/6/98. Approved.—J.H.C., 17/6/98. Charles Uphill informed, 20/6/98.

No. 21.

## No. 21.

The Under Secretary for Lands to Mr. Charles Uphill.

Sir,

Department of Lands, Sydney, 20 June, 1898.

Referring to your letter of the 24th ultimo, pointing out objections to public gates recently erected by Mr. F. S. Falkiner, I am directed by the Secretary for Lands to inform you that such objections were fully considered when the question of granting permission for the erection of the gates was being dealt with, but that, for the reasons conveyed to you in my letter of the 12th April last, it was decided to concede to Mr. Falkiner the permission sought.

I am to add that departmental reports for the guidance of the Minister are treated as confidential, and copies of them cannot, therefore, be supplied to the public; but that copies of the Act 39 Victoria No. 10, and the Public Roads Act of 1897, can be purchased at the Government Printing Office, Sydney.

I have, &amp;c.,

WM. HOUSTON,

Under Secretary,

(per F.H.W.)

## No. 22.

J. M. Chanter, Esq., M.P., to The Under Secretary for Lands.

Sir,

Parliament House, Sydney, 22 August, 1898.

*Re* the enclosed correspondence from Mr. Chas. Uphill, I shall be glad if you will peruse it, and inform me if there is any remedy for the evil complained of. It does appear to me that Mr. Uphill should have been given an opportunity to place his objections before the Land Board.

Please return the whole of the correspondence to me when noted, and oblige

Yours &amp;c.,

J. M. CHANTER, M.P.

Mr. Chanter might be informed that matters relating to the granting of permission for the erection of public gates are not referred to the Local Land Board, but are dealt with at Head Office, upon the report of the surveyor instructed to inspect the locality and make known to the Department the circumstances surrounding the case. Before erection of a public gate is authorised, members of the public are invited by *Gazette* notification, and, where practicable, advertisement in the local Press, to communicate to the Department, within thirty days from date of notice, any objection they may have to such authorisation, and, at the expiration of the prescribed time, the matter is finally dealt with. In the case under notice, the customary procedure was followed, and the objections submitted by Mr. Uphill were fully considered; but the reports of officers of this and the Works Departments being favourable to the granting of Mr. Falkiner's application, it was decided to authorise the gates, which has been done.—A. J. STORRS, 31/8/98.

For approval.—F. H. WILSON, Chief Clerk, 1/9/98. Approved.—J.H.C., 2/9/98. J. M. Chanter informed, 6/9/98. Correspondence returned.

## No. 23.

The Under Secretary for Lands to J. M. Chanter, Esq., M.P.

Sir,

Department of Lands, Sydney, 6 September, 1898.

Referring to your letter of the 22nd ultimo, respecting Mr. Charles Uphill's objections to Mr. F. S. Falkiner's public gates Nos. 1,842, 1,843, 1,844, and 1,845, I am directed by the Secretary for Lands to inform you that matters relating to the granting of permission for the erection of public gates are not referred to the Local Land Board, but are dealt with at Head Office, upon the report of the surveyor instructed to inspect the locality and make known to the Department the circumstances surrounding the case. Before erection of a public gate is authorised, members of the public are invited by *Gazette* notification, and, where practicable, advertisements in the local Press, to communicate with the Department, within thirty days from date of notice, any objection they may have to each authorisation, and at the expiration of the prescribed time the matter is finally dealt with. In the case under notice the customary procedure was followed, and the objections submitted by Mr. Uphill were fully considered; but the reports of officers of this and the Department of Public Works being favorable to the granting of Mr. Falkiner's application, it was decided to authorise the gates, which has been done.

In compliance with your request, the correspondence which accompanied your communication is returned herewith.

I have, &amp;c.,

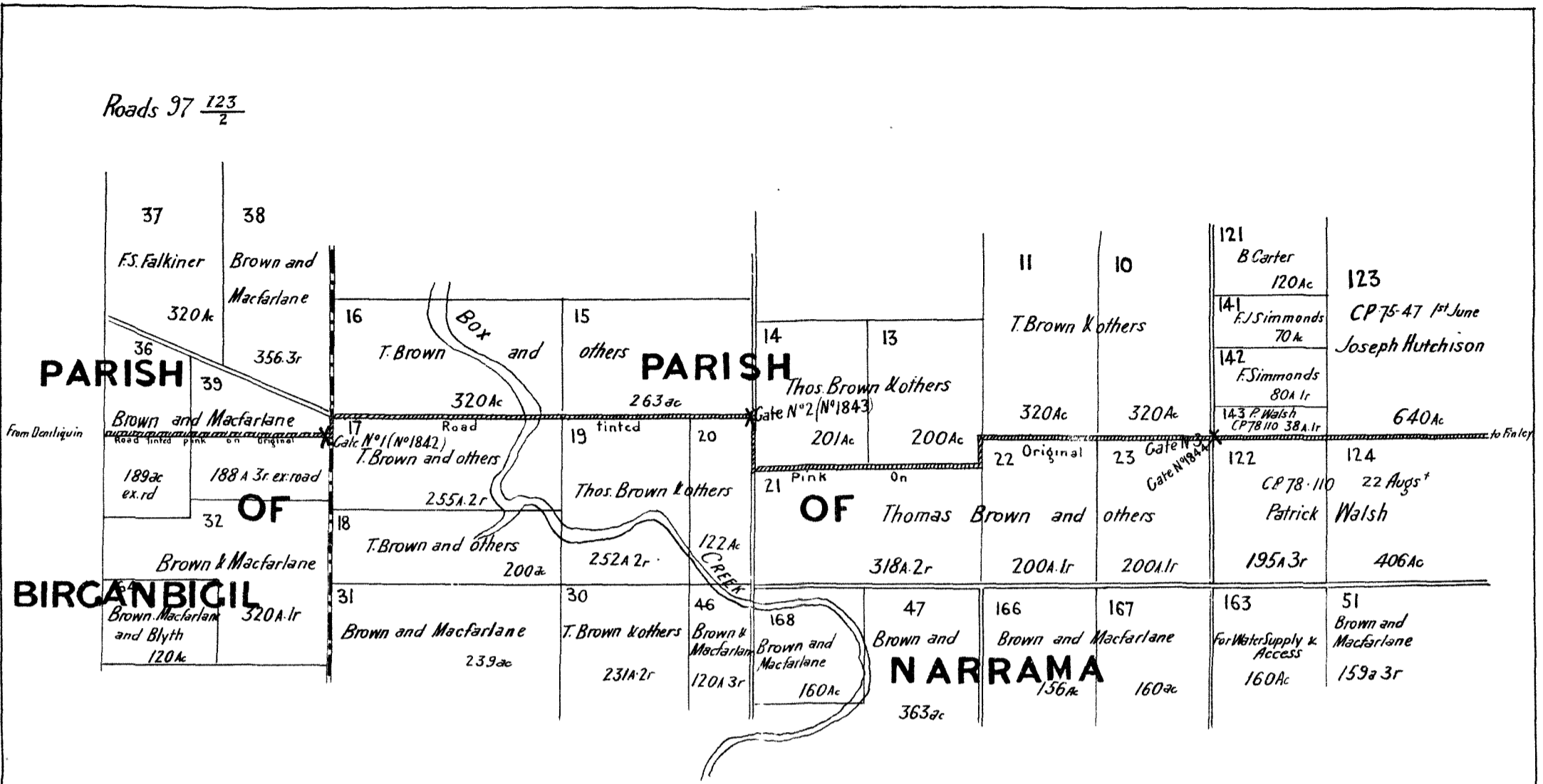
WM. HOUSTON,

Under Secretary,

(per F.H.W.)

[One Plan.]

[9d.]



**ROUGH PLAN**  
— shewing —

— Positions of Public Gates within —  
Tuppal Holding N°160 Central Division  
applied for by Franc. Sadleir Falkiner  
Parishes of Birranbigil Narrama  
Blackwood and Pungulgui  
County of Townsend  
Positions of Gates shewn thus X

(\*) A Jameson  
28.7.97  
Deniliquin

27.2.12.98

1899.

(THIRD SESSION.)

—  
LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

---

PROGRESS REPORT FROM THE SELECT COMMITTEE

ON

CASE OF WILLIAM CRESWELL;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE

AND

MINUTES OF EVIDENCE.

---

*Printed under No. 15 Report from Printing Committee, 21 December, 1899.*

---

SYDNEY: WILLIAM APPEGATE GULLICK, GOVERNMENT PRINTER.

1900.

[1s. 6d.]

1899.

(THIRD SESSION.)

EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE  
LEGISLATIVE ASSEMBLY.

VOTES No. 37. TUESDAY, 7 NOVEMBER, 1899.

14. CASE OF WILLIAM CRESWELL:—Mr. J. C. L. Fitzpatrick moved, pursuant to Notice,—  
(1.) That a Select Committee be appointed, with power to send for persons and papers, to inquire into and report upon the case of William Creswell, at present an inmate of the Parramatta Lunatic Asylum.  
(2.) That such Committee consist of Mr. Dacey, Mr. Meagher, Mr. Anderson, Mr. Wilks, Mr. Waddell, Mr. B. M. Clark, Mr. O'Connor, and the Mover.  
Debate ensued.  
Question put.  
The House divided.

Ayes, 48.

Mr. Lync,  
Mr. Fegan,  
Mr. Goodwin,  
Mr. See,  
Mr. Wilks,  
Mr. O'Sullivan,  
Mr. Piddington,  
Mr. Meagher,  
Mr. Gillies,  
Mr. Hawthorne,  
Mr. Jessep,  
Mr. Pyers,  
Mr. Perry,  
Mr. Rose,  
Mr. Wood,  
Mr. Barnes,  
Mr. Phillips,

Mr. Moore,  
Mr. W. W. Davis,  
Mr. Cann,  
Mr. McGowen,  
Mr. Hughes,  
Mr. Watson,  
Mr. James Thomson,  
Mr. Arthur Griffith,  
Mr. Atleek,  
Mr. Hassall,  
Mr. Richards,  
Mr. Hurley,  
Mr. Kidd,  
Mr. McCourt,  
Mr. Carroll,  
Mr. Nicholson,  
Mr. Nielsen,

Mr. Edden,  
Mr. Law,  
Mr. Wright,  
Mr. Chantor,  
Mr. Lees,  
Mr. Byrne,  
Mr. Henry Clarke,  
Mr. Henry Chapman,  
Mr. Thomas Clarke,  
Mr. Smith,  
Mr. Millard,  
Mr. Ross,  
*Tellers,*  
Mr. Price,  
Mr. J. C. L. Fitzpatrick.

Noes, 11.

Mr. Molesworth,  
Mr. Brunker,  
Mr. Garland,  
Mr. Cook,  
Mr. Cohen,  
Mr. Quinn,  
Mr. Spruson,  
Mr. Sawers,  
Mr. Thomas Fitzpatrick,  
*Tellers,*  
Mr. Morgan,  
Mr. Mahony.

And so it was resolved in the affirmative.

VOTES No. 53. TUESDAY, 12 DECEMBER, 1899.

5. CASE OF WILLIAM CRESWELL:—Mr. J. C. L. Fitzpatrick (*by consent*) moved, without Notice, That the Select Committee, now sitting on "Case of William Creswell," have leave to visit the Hospital for the Insane, Parramatta, for the purpose of taking evidence in connection with the inquiry.  
Question put and passed.

VOTES No. 57. THURSDAY, 21 DECEMBER, 1899.

3. CASE OF WILLIAM CRESWELL:—Mr. Meagher, for Mr. J. C. L. Fitzpatrick, Chairman, brought up the Progress Report from, and laid upon the Table the Minutes of Proceedings of, and Evidence taken before the Select Committee for whose consideration and report this subject was referred on 7th November, 1899.  
Referred by Sessional Order to the Printing Committee.

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1899.

(THIRD SESSION.)

## CASE OF WILLIAM CRESWELL.

---

PROGRESS REPORT.

---

THE SELECT COMMITTEE of the Legislative Assembly, appointed on 7th November, 1899, "*to inquire into and report upon the case of William Creswell, at present an inmate of the Parramatta Lunatic Asylum,*" and to whom was granted on 12th December, 1899, "*leave to visit the Hospital for the Insane, Parramatta, for the purpose of taking evidence in connection with the inquiry,*" have agreed to the following Progress Report :

Your Committee having examined the witnesses named in the List,\* \* See list, p. (whose evidence will be found appended hereto), have resolved, owing to the advanced period of the Session, to report the evidence to your Honorable House.

JOHN CHARLES LUCAS FITZPATRICK,  
Chairman.

*No. 1 Committee Room,  
Legislative Assembly,  
Sydney, 21st December, 1899.*



PROCEEDINGS OF THE COMMITTEE.

THURSDAY, 16 NOVEMBER, 1899.

MEMBERS PRESENT:—

Mr. Anderson,		Mr. E. M. Clark,
Mr. Dacey,		Mr. J. C. L. Fitzpatrick.

Mr. J. C. L. Fitzpatrick called to the Chair.

Entry from Votes and Proceedings appointing the Committee read by the Clerk.  
Committee deliberated.

Resolved (*on motion of Mr. Dacey*),—That the Chairman obtain the services of two medical practitioners to examine the man, William Creswell, with a view to their reporting to, and giving evidence before, the Committee.

[Adjourned till Thursday next, at 11 o'clock.]

THURSDAY, 23 NOVEMBER, 1899.

MEMBERS PRESENT:—

Mr. J. C. L. Fitzpatrick in the Chair.		
Mr. E. M. Clark,		Mr. Dacey,
		Mr. O'Connor.

Edward Priestman (*Accountant, City Mutual Life Association*) called in, sworn, and examined.  
Witness withdrew.

[Adjourned till Tuesday next, at 11 o'clock.]

TUESDAY, 28 NOVEMBER, 1899.

MEMBERS PRESENT:—

Mr. J. C. L. Fitzpatrick in the Chair.		
Mr. E. M. Clark,		Mr. Dacey,
Mr. Meagher,		Mr. Wilks.

Alfred Edwin Hellyer (*Record Clerk, Master-in-Lunacy's Office*) called in, sworn, and examined.  
Witness produced report of Drs. Fiaschi and MacCormack; also papers connected with the Creswell applications to the Supreme Court.

Witness withdrew.

Thomas James Pickburn (*Medical Practitioner*) called in, sworn, and examined.

Witness withdrew.

Henry William Devlin (*Medical Practitioner*) called in, sworn, and examined.

Room cleared; Committee deliberated.

[Adjourned till To-morrow, at 11 o'clock.]

WEDNESDAY, 29 NOVEMBER, 1899.

MEMBERS PRESENT:—

Mr. E. M. Clark,		Mr. Meagher,
		Mr. Wilks.

The Clerk read a telegram from the Chairman, intimating that he was unable to be present.

Mr. Wilks called to the Chair *pro tem*.

Edwin Godson, M.R.C.S. (*Medical Superintendent, Hospital for the Insane, Parramatta*), called in, sworn, and examined.

Witness withdrew.

Edward Priestman recalled and further examined.

Witness withdrew.

Re-assembling of the Committee to be arranged by the Chairman.

[Adjourned.]

THURSDAY,

THURSDAY, 7 DECEMBER, 1899.

MEMBERS PRESENT :—

Mr. J. C. L. Fitzpatrick in the Chair.  
Mr. E. M. Clark, | Mr. Dacey.

Edwin Godson recalled and further examined.  
Witness withdrew.  
Adjourned till Tuesday next, at 11 o'clock.

TUESDAY, 12 DECEMBER, 1899.

MEMBERS PRESENT :—

Mr. J. C. L. Fitzpatrick in the Chair.  
Mr. E. M. Clark, | Mr. Mcagher,  
Mr. Wilks.

John Richard Moore (*Acting Superintendent, Darlinghurst Receiving House*) called in, sworn, and examined.

Witness produced Registers 1871, 1872, Darlinghurst Receiving House.

Witness withdrew.

Harold Mapletoft Davis (*Licensed Surveyor*) called in, sworn, and examined.

Witness withdrew.

Luke Cullen called in, sworn, and examined.

Witness withdrew.

Committee deliberated.

Resolved (*on motion of Mr. E. M. Clark*),—That the Chairman obtain leave of the House for the Committee to visit Parramatta Hospital for the Insane, for the purpose of taking evidence in connection with the Inquiry, and that the Committee proceed by 9.25 a.m. train to Parramatta to-morrow.

[Adjourned till To-morrow at 9 o'clock.]

WEDNESDAY, 13 DECEMBER, 1899.

MEMBERS PRESENT :—

Mr. J. C. L. Fitzpatrick (Chairman).  
Mr. E. M. Clark, | Mr. Mcagher,  
Mr. Wilks.

Committee proceeded by train to Parramatta, thence to the Hospital for the Insane, and met in a room at that Institution.

MEMBERS PRESENT :—

Mr. J. C. L. Fitzpatrick in the Chair.  
Mr. E. M. Clark, | Mr. Meagher,  
Mr. Wilks.

The man known as Wm. Creswell having been brought into the room,—

Harold Mapletoft Davis further examined.

Luke Cullen further examined.

Wm. Algie (*Warder*) sworn and examined.

Witness withdrew.

The Committee having returned,—

Re-assembling to be arranged by the Chairman.

[Adjourned.]

TUESDAY, 19 DECEMBER, 1899.

MEMBERS PRESENT :—

Mr. J. C. L. Fitzpatrick in the Chair.  
Mr. Anderson, | Mr. E. M. Clark.

William Ernest Forbes called in, sworn, and examined.

Witness withdrew.

[Adjourned till To-morrow, at 3 o'clock.]

WEDNESDAY, 20 DECEMBER, 1899.

MEMBERS PRESENT :—

Mr. J. C. L. Fitzpatrick in the Chair.  
Mr. E. M. Clark, | Mr. Meagher,  
Mr. O'Connor, | Mr. Wilks.

Alexander MacCormick (*Medical Practitioner*) called in, sworn, and examined.

Witness withdrew.

Committee deliberated.

Resolved (*on motion of Mr. Wilks*),—That the Chairman prepare a Draft Progress Report.

[Adjourned till To-morrow, at 2.30 o'clock.]

THURSDAY,

THURSDAY, 21 DECEMBER, 1899.

MEMBERS PRESENT:—

Mr. Anderson,		Mr. E. M. Clark,
Mr. Meagher,		Mr. O'Conor.

In the absence of the Chairman, Mr. Meagher called to the chair *pro. tem.*  
 Mr. E. M. Clark moved,—That Drs. Pickburn and Devlin be awarded the sum of £7 7s. each, under Standing Order No. 374, for examining the man William Creswell, and giving evidence, in accordance with the Committee's Resolution of 16th November, 1899.  
 Mr. Meagher submitted the Chairman's Draft Progress Report.  
 Same read and agreed to.  
 Chairman to report to the House.

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1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MINUTES OF EVIDENCE

TAKEN BEFORE

THE SELECT COMMITTEE

ON

## CASE OF WILLIAM CRESWELL.

THURSDAY, 23 NOVEMBER, 1899.

Present:—

MR. E. M. CLARK, | MR. DACEY,  
MR. O'CONNOR.

J. C. L. FITZPATRICK, ESQ., IN THE CHAIR.

Edward Priestman, accountant, City Mutual Life Office, Hunter-street, Sydney, sworn and examined:—

1. *Chairman.*] I believe you visited the Parramatta Lunatic Asylum yesterday in company with Dr. E. Priestman, Pickburn and Dr. Devlin? Yes.
2. Did you there see the man who is referred to by this Committee as William Creswell? Yes; I have <sup>seen him twice before.</sup> 23 Nov., 1899.
3. I believe he is the man in connection with whose case this Committee was appointed? Yes.
4. And the man whom the doctors went to see? Yes.
5. *Mr. Dacey.*] Is the man whom the doctors examined reputed to be Sir Roger Tichborne? Yes.
6. *Mr. Clark.*] Do you allege that he is Sir Roger Tichborne? Yes.
7. And that is the man whom the doctors examined? Yes.
8. *Mr. O'Connor.*] Were you present during the whole of the examination by the doctors? Yes; for two and a half or three hours.
9. *Chairman.*] I believe you have taken an interest in this case for a number of years? Yes; for over five years. The very first day I saw him I was convinced he was Tichborne, on account of the family likeness.
10. *Mr. Clark.*] Did you know the family in England? Yes; I knew Tichborne's brother.
11. *Mr. Dacey.*] Were you personally acquainted with the family? Yes.
12. *Mr. Clark.*] I believe that in the course of five years you have gathered a great deal of information about the case? Yes; I will be able to give it to the Committee when they require it.
13. *Mr. Dacey.*] Have you any letters of the documents bearing on the case from England or elsewhere? Not from England. There have been so many resurrections in connection with the case during the last thirty years that the people at Home have got sick of it and cannot believe that there is anyone of the Tichborne family in the asylum. They tell me that if it is really proved that this man is Tichborne, England will be fairly staggered.
14. Were not the Tichborne estates settled by Act of Parliament so that this man can have no right to them? The Tichborne estates are settled on Sir Henry Tichborne to protect them against imposters, but the Doughty estates went into Chancery. I may mention, that if the man in the Asylum is proved to be Tichborne, he is Sir Roger Charles Doughty Tichborne. The present Sir Henry Tichborne is Sir Henry pure and simple. The man in the Asylum is the only one who can assume the title of Doughty. He amalgamates the Doughty estates in his own person. Failing proof that he is Tichborne, or the discovery of the real Tichborne, the estates go to another branch of the family.

- E. Priestman. 15. He would virtually be entitled to the Doughty estates under any circumstances? Undoubtedly; he is the only man who can amalgamate the two estates.
- 23 Nov., 1899. 16. Have you discovered, in the course of your inquiries, that if this man is really William Creswell, he is entitled to property at Home? We have information that Thos. Creswell swore in the witness box here in 1884, that he came here to find the brother who is entitled to an estate in England—a large farm worth £2,000 or £3,000.
17. *Chairman.*] As the result of your examination yesterday, have you seen any reason to change your opinion with regard to the identity of the man? Not in the slightest degree. I am more convinced than ever.
18. *Mr. Clarke.*] I suppose that you did not take part in the examination? No. I held up the man's sleeve that they might examine his arms.
19. *Chairman.*] I believe that during the greater part of the examination, Dr. Godson the Medical Superintendent of the Asylum was present? Yes; also a Mr. Wharf and another person whose name I do not know. There was also a warder present.

TUESDAY, 28 NOVEMBER, 1899.

Present:—

MR. E. M. CLARK,		MR. MEAGHER,
MR. DACEY,		MR. WILKS.
J. C. L. FITZPATRICK, ESQ., IN THE CHAIR.		

Alfred Edwin Hellyer, Record Clerk, Master-in-Lunacy's Office, sworn and examined:—

- A. E. Hellyer. 20. *Chairman.*] I believe the Department with which you are connected has been called upon to produce some papers in connection with the case of William Creswell? Yes. I produce the report of Drs. Fiaschi and MacCormick. Creswell was admitted to the Parramatta Asylum on the 18th April, 1872. I may mention that Drs. Fiaschi and MacCormick made an examination of Creswell about eighteen months ago. I also produce the papers connected with the Creswell applications to the Supreme Court. The first application was made on 30th December, 1879. An order was made directing that Creswell might go to England upon Mr. Eckford giving a bond. Two men, I think, came here from England to remove him, but they were discredited; subsequently an application was made for his release as Orton. A further application was made about 1885, by Charles Orton, claiming Creswell as his brother.
- 21.—\*

Thomas James Pickburn, medical practitioner, sworn and examined:—

- T. J. Pickburn. 22. *Chairman.*] I believe you received instructions last week to visit the Parramatta Asylum for the purpose of examining a man named William Creswell? Yes.
23. Did you do so? Yes.
- 28 Nov., 1899. 24. Will you make a statement with reference to the matter? I was asked to reply to a list of questions which was submitted to me with reference to marks alleged to be on the body of this man, and to give my answers after making a careful examination on Wednesday, 21st November.
25. What length of time did you occupy in making the examination? About two or three hours. I was accompanied by Dr. Devlin, and made a careful examination so as to ascertain whether Creswell has certain marks and characteristics alleged to be identical with those on Roger Tichborne. I might state that in carrying out this somewhat tedious examination, no difficulties were experienced, so far as Creswell himself was concerned, for his behaviour was particularly quiet and docile; and when he once or twice exhibited a little impatience, a word from Mr. Edward Priestman had the effect of making him quite submissive, and ready to submit to any examination desired. The following are the questions submitted to me, along with my answers to the same:—
1. Is there a lancet cut for bleeding on the temporal artery? There are two faint linear scars directly over the temporal artery, just above the left auditory canal.
26. Where is the temporal artery? Close to the auditory canal.
2. Is there a slight blotch, about the size of a fourpenny piece, on the front of the left wrist, or any mark indicating the obliteration of such? No blotch on the front of the left wrist, but a linear scar over the radial artery, half an inch long.
  3. Do Creswell's ears correspond with the description of Roger Tichborne's, as follows:—"Ears not matches, the left being lobelless, the right having a normal lobe"? The right ear has a large pendant lobe, and the left none. The ears are not matches, the right ear being much larger altogether, and measures  $3\frac{1}{2}$  inches vertically, while the left is only  $2\frac{1}{2}$  inches, and is smaller transversely.
  4. Has he large grey-blue eyes, with a pensive expression? Yes, as to large grey-blue eyes; expression more vacant than pensive; sometimes watchful and suspicious.
  5. Has he an ample but flat forehead, with bushy eyebrows? The forehead is ample, but not particularly flat; the eyebrows are decidedly bushy.
  6. Does Creswell limp at all when walking? Yes, a little, at times, when walking; the limp being apparently due to some marked bowing of the right leg, causing a slight shortening of that limb.
  7. Has he the habit of twitching or raising the eyebrows? Yes.
  8. Has he any mark on the eyelids which could have been caused by the insertion of a fish-hook? Was satisfied that there is a small roundish scar on the right upper eyelid, and might have been so caused.
  9. Are there the remains of an issue-mark on Creswell's left upper arm? There is a small white scar, slightly depressed, on the left upper arm, near the vaccination marks, and could have been due to an issue.
- 10.

\* Question and answer expunged by order of the Committee.



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10. Are there lancet cuts for bleeding on both arms; and, if so, how many on each? Yes; at the bend of the *left* arm there is the faint scar of a puncture directly over the vein; at the *right* bend there are two scars, one directly over and in a line with the vein, and another linear scar in a line with the vein, but a little ( $\frac{1}{4}$ -inch) to one side of it.
11. Are there lancet cuts for bleeding on the ankles? Unable to find any, but it is possible that, after the lapse of so many (fifty) years, and the friction and exposure to which the feet are subjected, the smaller punctures made in bleeding would become too faint and indistinct to discern.
12. Are there any tattoo-marks on Creswell's left arm, or marks indicating the obliteration of such by cauterization? There are *no* tattoo-marks whatever on the arms. There is a large puckered elliptical scar on the back of the left hand and wrist, which is nearly 3 inches in length, and about 1 inch wide at its broadest central part.
13. Could such scar have been caused by cauterization? Any powerful caustic or acid, causing great destruction of skin, might result in a similar scar.
14. Is there a "lump" on his right instep? There is no abnormal "lump," but the tarsal end of the metatarsal bone of the right great toe is more pronounced and thickened than the left. This is a fairly common appearance on both insteps, especially the right, and in Creswell's case, the lumps are, no doubt, due to traumatism; the right foot, being naturally more exposed to injuries, would have the larger lump.
15. Are the feet of equal length, and what is the length of each foot? The difference in length between the two feet is very slight; the left foot (raised) is 10 inches; pressed on the ground half an inch longer ( $10\frac{1}{2}$ ); the right foot (raised) measures  $10\frac{1}{4}$  inches; pressed on the ground, the same as the left ( $10\frac{1}{2}$  inches); but time and mode of life must have a marked effect on the measurements of the feet.
16. What is Creswell's height? His height, measured in his socks, is 5 ft.  $6\frac{1}{2}$  in. Creswell no longer holds himself erect, and the progressive stooping of the head and shoulders would readily account for much decrease in height, even of an inch, or two inches, during the last ten or fifteen years.
17. Has Creswell a dent in the back of his head, just behind the left ear? Yes; but it is a natural depression, and can be found behind both ears; it is most marked on the left side.
18. Is there a strong resemblance between Creswell and the likeness of Sir James Tichborne, Roger's father? Could not see the slightest resemblance.
19. Has Creswell a dent in the centre of the eyebrow? Could not find any dent in the centre of the eyebrows, only the natural notches (supra-orbital) on the inner side of both brows.
20. Has Creswell a small wound, healed over, on the top of the third finger of the right hand? Could see nothing definite.

I may remark that Creswell's answers were given perfectly quietly, and without any resistance. Once or twice he seemed to be a bit tired of it, but that was all. I may state that when he sat on a chair, he sat in the way which has often been described—"he sat on the side of a chair, with his right arm thrown over the back of it."

27. I believe that is a peculiarity which has been attributed to Tichborne himself? I have read so.
28. Did you arrive at any conclusion as to Creswell's mental condition? I should say there is no doubt that he is hopelessly insane. He is in a state of chronic dementia, and always will be. Whether he is or is not harmless, I cannot say. He was, however, perfectly quiet whilst we were there. The only persons who could give evidence as to whether he is or is not harmless would be those who have had opportunities of continually watching him.
29. *Mr. Wilks.*] Did he express any desire to know the object of your inspection? No; I do not think he took the slightest interest in it. He seemed tired of it. It seemed to bore him, and he was anxious to get away.
30. You have stated that his height is a  $\frac{1}{4}$  of an inch less than it was on a former occasion when he was examined? Yes. He has shrunk a  $\frac{1}{4}$  of an inch since he was examined by Drs. Fiaschi and McCormack about two years ago.
31. I suppose that is a thing which is quite possible to occur? Yes; I should imagine that in another year he will be a  $\frac{1}{2}$  of an inch shorter still.
32. What is the difference between the measurement of Tichborne and of this man? I think that when Tichborne was a young man his height was 5 ft.  $8\frac{1}{2}$  in.
33. I suppose it is a general feature of all men that they shrink in stature as they grow older? Yes. Of course we are all taller in the morning than we are in the evening. The cartilages between the spine extend whilst we are lying down, and throughout the day they collapse a little.
34. *Mr. Meagher.*] I suppose you had the result of Drs. Fiaschi and McCormack before you when you made your examination? Yes.
35. With regard to the marks on the temporal artery;—as a result of their investigation they say "there are no lancet cuts for bleeding over the situation of the temporal artery"? Yes.
36. Is it possible that they might have laboured under the misapprehension under which many people labour in regard to the situation of the temporal artery? I should say that they would not. I may mention that the marks were distinct, and they were verified when we enlarged them by means of a magnifying glass. The arteries are very easy to see, because they are in a state of disease. They are hard and large, like whipcord.
37. Drs. Fiaschi and McCormack stated that they found no more marks on the eye-lid suggestive of injury by means of a fishhook? That is so. We looked at the eyelids very carefully. We cannot say what the mark was originally. There might have been a pustule there which has left the little scar.
38. Is it possible that that mark might have been due to an injury caused by a fishhook? It is quite possible. Of an injury, sustained thirty or forty years ago, there would be very little left.
39. I believe that the injury occurred fifty years ago? That is so. You can see a scar there, and you can also notice that the skin is a little thinner, because it is scar tissue.
40. Did you notice any appearance of Creswell being in-kneed? No; on the contrary, he is bow-legged. His right leg is bowed out. That makes one leg a little shorter than the other. I understand that during his time he has been a good deal on horseback.

T. J. Pickburn. 41. In view of the man's age and condition, there is no doubt that a shrinkage of his stature would be possible? Yes; the fact exists that he has shrunk a quarter of an inch since the last measurement. He was 5 ft. 7 in. when Drs. MacCormick and Fiaschi examined him two years ago, and since that time he has shrunk a quarter of an inch.

28 Nov., 1899. 42. *Mr. Wilks*] In what part of the day did you make the examination? In the middle of the day.

43. Do you know during what part of the day the other doctors examined him? No. If they examined him immediately after he had been in bed for eight hours it would make a difference.

44. *Chairman*.] In addition to yourself and Dr. Devlin, I believe that Dr. Godson, the Medical Superintendent, was present at the time of the examination? Yes, and he rendered us every assistance.

Henry William Devlin, medical practitioner, North Sydney, sworn and examined:—

H. W. Devlin. 45. *Chairman*.] Have you any evidence to offer? Yes; in conjunction with Dr. Pickburn I made an examination of William Creswell, at the Parramatta Lunatic Asylum, on Wednesday last.

28 Nov., 1899. 46. I believe your examination occupied a considerable length of time? About two and a half hours. I was asked to answer the following questions, to which my answers are attached:—

1. Is there a lancet-cut for bleeding on the temporal artery? Yes, two linear cicatrices (scars) directly over temporal artery, close to left auditory canal.

2. Is there a slight blotch, about size of fourpenny-piece, on the front of left wrist, or any mark indicating the obliteration of such? No blotch, but a linear mark half inch long, over radial artery.

3. Do Creswell's ears correspond with the description of Roger Tichborne's, as follows:—Ears, not matches; the left ear lobeless, the right ear having a normal lobe? Yes, perfectly. Right ear, 3½ inches length; left, 2¾ inches.

4. Has he large blue eyes with a pensive expression? Striking large grey-blue eyes, occasionally pensive.

5. Has he an ample, but flat, forehead, with bushy eyebrows? Ample forehead, not specially flat. Eyebrows very bushy.

6. Does Creswell limp at all when walking? Yes, slightly; the limp being apparently due to bowing, causing shortening of leg.

7. Has he the habit of twitching or raising eyebrows? Yes, in a marked degree.

8. Has he any marks on the eyelid which could have been caused by the insertion of a fish-hook? Yes; mark on right upper eyelid could have been so caused.

9. Is there the remains of an issue-mark on Creswell's left upper arm? Yes; small amorphous white scar near vaccination marks, probably resulting from issue.

10. Are there any cuts for bleeding on both arms, and, if so, how many on each? Yes; one on left arm, two on right. One of two on right directly over cephalic veins; the other just beside it. At the bend of left arm there is a faint scar of a puncture over the vein.

11. Are there any lancet-cuts for bleeding on ankles? Not visible.

12. Are there any tattoo-marks on Creswell's left arm, or any marks indicating the obliteration of such by cautery? No tattoo-marks; large puckered scar over the back of wrist, 3 inches long and over 1 in breadth in centre.

13. Could such scar have been caused by cautery? Yes.

14. Is there a lump on his right instep? Yes; lump on both insteps, more marked on right.

15. Are the feet of equal length, and what is length of each foot? Equal length horizontally, both being 10½ inches. Perpendicularly, or as taken by a shoemaker—right, 10½; left, 10 inches.

16. What is Creswell's height? Five feet 6¾ inches in socks.

17. Has Creswell a dent in the back of his head, just behind the ear? Yes; behind both ears, especially left.

18. Is there a strong resemblance between Creswell and the likeness of Sir James Tichborne—Roger's father? Cannot see any.

19. Has Creswell a dent in centre of eyebrow? Yes; in both, more marked in right.

20. Has Creswell a small wound, healed over, in the top of the third finger of right hand? Nothing definite.

21. How did Creswell behave in room? He seemed inclined to resent the examination; but on Mr. Priestman informing him it was for his good, he was very quiet and submissive throughout.

22. Could cuts on ankles have become obliterated? Yes; the length of time (fifty years), the exposure the feet are subject to, the friction from boots, would all tend to obliterate lancet-cuts.

23. Did Creswell volunteer any information re scars on front of arm? Understood Creswell to say that the one who removed blotch near the radial artery removed the other.

I could not say whether he meant the other scar on the wrist or the one on the back of his hand. Dr. Pickburn thought he referred to the one on the wrist.

47. *Mr. Meagher*.] Did you know at that time that Creswell had made a statement to a medical gentleman some years before, stating the cause of those removals? No; but Mr. Priestman, who was present, drew my attention to what he said.

48. *Mr. Wilks*.] He did not give any details with regard to the removal? No; he said that the person who removed the one removed the other. There were several cuts and scars on the wrist, one of which did not resemble an ordinary scar; it was something like a blotch, and he said that the man who removed that removed the other.

49. In what manner could he have removed it? By cutting a piece of skin out elliptically. I may mention that in the case of birth-marks we now, instead of burning them out, make an elliptical incision, and draw the parts together!

50. How do you suppose a mark would have been removed at the time in question? Most likely by acid.

51. Would that leave a blotch? It would leave a scar.

52. In your opinion surgical aid would be required to remove it? I think so. Of course a man with very little medical knowledge could do it. I have seen acid put on a birth-mark, and it has become white, and has shrivelled up.

53. What would be the object of removing a scar like that? If there had been a tattoo-mark, it might have been removed with the object of concealing identity. If it had been a birth-mark, it might have been removed with the object of getting rid of disfigurement.

54. *Chairman.*] Still it would be competent for a man with an object to serve to remove a tattoo-mark ;— is there any reason to believe that the mark that you found on his arm was not produced by that means? The front mark, I should think, was produced by that means, and the back ones possibly so.

55. The tattoo-mark, as a matter of fact, was on the back of the arm;—it is scarcely likely that it would be on the fore-arm? No, because the chief arteries are there, and in tattooing you would have to take great care that you did not injure them, and cause the dye to affect them.

56. *Mr. Wilks.*] Have you any knowledge as to how tattooing was carried out about that period? No.

57. Is there any scientific method of tattooing elsewhere than that which is adopted in Russia? Yes; a man whom I examined the other day in connection with a life office had a tattoo-mark upon him. It almost looked like an impression from his clothes. I asked him what it was, and he said, "I am hardly at liberty to explain, but it is the mark of a secret society in America where we are all tattooed." It was scientifically and neatly done.

58. *Mr. Meagher.*] Have you seen what are termed the "bracelets"—a tattoo-mark which goes right round the wrist? Yes; it is quite possible to do that sort of thing. It would require no scientific knowledge to do that, because a man, as a rule, would not know the danger he was incurring. On the other hand, he would probably take precautions in regard to the dye. Things which are dangerous are often done without bad results following.

24. Will the doctors state, in replying to the question as to Creswell's height, if it is probable that Creswell has shrunk; in fact, has every appearance of having shrunk fully from  $1\frac{1}{2}$  inch to 2 inches during the last ten or fifteen years, having become considerably bent, &c.? It is probable that Creswell has decreased in height to the extent in question owing to age and stooping.

25. Will the doctors state how Creswell, during most of the time he was seated, sat sideways on the chair, with one arm thrown over the back of the chair, a marked characteristic of Roger Tichborne? This characteristic was distinctly noticed.

26. Can the doctors say that he mumbled a good deal to himself (another marked characteristic of R.C.T.)? Yes.

27. Is it not usually the case that a small lump is common on the instep of the left foot with many people;—in the case of Creswell it is on the right foot (this is where it was on R.C.T.)? Not aware of lump showing preference as a rule for either foot. In Creswell's case much more marked on right.

I have seen two or three shoemakers, and they say that the lump has no preference for either foot. It sometimes occurs on the right and sometimes on the left foot, and it occurs about once in thirty people.

28. Can the doctors state that though Creswell is eccentric he is harmless to all appearances? To all appearances he is harmless, but could not definitely state, having but limited opportunities of observing him.

My answers are practically the same as those of Dr. Pickburn.

59. *Mr. Wilks.*] With regard to the mark on the right eye, do you think it could be occasioned by a pustule? I do not think so, because there was a mark and a counter-mark. It appeared as though something had gone through the eyelid whilst it was in a folded state. When it was unfolded you could see two marks.

60. Could that have been caused by a fish-hook? It might have been. Of course it is a long time since it occurred, but it is fairly distinct under the glass.

61. You have stated that Creswell had a pensive look about him;—do you think it is possible for an insane man to look pensive for any length of time? Yes. I may state the attendants said he was brighter than usual on account of the excitement. Mr. Priestman brought him some tobacco and other things.

62. You state that he mumbled to himself;—is that a characteristic amongst insane people? Yes; it is a common characteristic.

63. Is it looked upon at times as a sign of insanity? To some extent it is.

64. Is the mere fact of a man being for twenty-nine years in a lunatic asylum calculated to deprive him of what little reason he possessed when he went in? Yes; I do not think many would have stood the ordeal.

65. What impression did you form of Creswell as a man? He is a most remarkable looking man. You could never forget him if you saw him. He has aristocratic looking features—altogether out of the common, and his manner is quiet and gentlemanly. As a rule, men who are educated up to a certain standard lose all that sort of thing when they become partially insane, but he seems to have preserved it to a great extent.

66. *Mr. Wilks.*] Did he evince any interest in your examination? Very slight. When Mr. Priestman said that we were his friends, he raised his eyebrows in an extraordinary fashion. Mr. Priestman asked him to shake hands with us, but he would not do so. Mr. Priestman also asked him to be quiet, and to do what he was told, and he was quiet.

67. Do you consider him to be hopelessly insane? I should say he is a lunatic; but I did not see very much of him. I remember a patient of mine being in an asylum for six or seven years, and a year before he died he became quite sane.

68. *Mr. E. M. Clark.*] Do you look upon him as a dangerous lunatic? He seemed very harmless when we saw him.

69. *Chairman.*] Dr. Godson, I believe, made a remark to the effect that Creswell was particularly quiet and docile that morning? Yes. He also said that whether he was or was not Tichborne, he was no ordinary man. He stated that he was noted for his cleanly habits. He also stated, "This man is passionately fond of tobacco. The other inmates who are fond of tobacco will beg, borrow, or steal it, but Creswell will never get it in an underhand way. If he cannot get it in a proper fashion he will go without it."

70. *Mr. Wilks.*] Did you form an impression that he is a man who has had the advantage of a good early training? Yes; and even more than that because some men who have had a good training lose all the effect of it when they become demented.

71. Did you form the impression that he was a man with a refined mind? Yes.

72. *Mr. Meagher.*] Can you understand how a medical man, looking at the temporal artery for scars, could possibly miss seeing them if they were there? I think I could explain that matter very satisfactorily. The temporal artery runs a great distance. It branches across the temple on the side of the head.

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head. When we examined the man Dr. Pickburn looked at the artery over the temple, and I looked at it below. I remember an instance in which two doctors asserted, at first, that the temporal artery ran across the forehead, but, on thinking over the matter, they said it also ran up the side.

73. Is the portion of the temporal artery where the scars were found in any way obscured by hair? I think there is a little hair. I can easily understand that the anterior branch of the temporal artery, which crosses the temple, was what was examined on a former occasion.

74. *Mr. Wilks.*] Probably the doctors did not follow out its ramifications? I have no doubt they did, but the main artery may have been neglected. They examined the portion crossing the temple. I may mention that our examination lasted for two and a half hours, and Dr. Godson told me that the former examination lasted for only one hour.

75. *Mr. Meagher.*] I suppose that, in making a full investigation, you would naturally examine the whole of the surface which was traversed by the temporal artery? —

76. *Chairman.*] As a matter of fact, being unable to discover a mark immediately over the temple, you would follow the artery down until it reached the main trunk from which it sprung? Yes; we looked about a good deal on both sides, and then saw the mark. I may state that upon one occasion I saw a man bled at that particular spot, and I had that in my mind when making the examination.

77. *Mr. Meagher.*] Were these scars or marks visible without the magnifying glass? Yes; it is necessary to look minutely, but still they are visible to the naked eye.

78. With regard to the scar on the wrist: under the microscope would there be any distinction between a wound that has been healed and a birthmark, or any other mark, which has been obliterated by the aid of acid? I do not think there would be in this case, because there was great destruction of tissue underneath. I should say that when it was done a large area was scooped out by means of operation or cautery. That would granulate upwards from the bottom, and, under the microscope, would not show any difference.

79. In notice that Drs. Fiaschi and MacCormick, who examined the scar about which you have been speaking, said, in their report, dated 26th November, 1897:—

There is a broad scar on the back of left hand and wrist. This, Creswell told us, was cut by a butcher's crop, and was treated in St. Mary's Hospital. There is another linear scar on the inside of left wrist, done by a knife, the result of a kick by a sheep whilst slaughtering it. This occurred at Tumut. These scars can be accounted in the manner described by Creswell to Sir William Manning.

Do you prefer to accept Creswell's explanation of this matter rather than the theory that the injury was the result of burning out by means of acid? I would rather accept the theory that it was burnt out by means of acid. It would be impossible for an uncomplicated crop injury to do it.

80. *Mr. Wilks.*] Did Creswell attempt to be communicative with regard to his scars? No.

WEDNESDAY, 29 NOVEMBER, 1899.

Present:—

MR. MEAGHER.

MR. E. M. CLARK.

W. H. WILKS, ESQ., IN THE CHAIR.

Edwin Godson, M.R.C.S., sworn and examined:—

E. Godson,  
M.R.C.S.  
29 Nov., 1899.

81. *Chairman.*] What are you? Medical Superintendent of the Hospital for Insane, Parramatta.

82. Would you care to make a statement, or would you prefer to answer a series of questions? I shall be glad to answer any questions that may be asked. Of course, I look upon Creswell as one of my ordinary patients.

83. *Mr. Clark.*] How long have you been Medical Superintendent there? I have been Medical Superintendent sixteen years, but I have been in the institution eighteen years.

84. *Chairman.*] Were you present at the last medical examination of Creswell? Yes.

85. And you witnessed the general behaviour of Creswell? Yes.

86. Did he exhibit then, or at any previous time, anything that would show that he was any other person than Creswell? Well, I have always looked upon him as Creswell. I do not know of anything in his general bearing that would lead me to believe otherwise. I have no opinion at all as to the identity of the man. He is there the same as any one else, and I identify him as Creswell.

87. Were you present at the previous inquiry conducted by Dr. Fiaschi and Dr. MacCormick? Yes.

88. Will you inform the Committee what was your impression in regard to the examinations—which was the more searching? The latter one—the one made by Dr. Pickburn and Dr. Devlin—was longer, but I do not say more searching.

89. *Mr. Clark.*] How long did the last examination take? From about half-past 10 until 1 o'clock.

90. And how long did the previous one take? I suppose an hour and a half.

91. We have evidence to the effect that it took about a quarter of an hour? That is altogether wrong. They were certainly there for fully an hour.

92. We also have it in evidence that Creswell was in the habit of muttering;—is not that common with general patients? No; but certain classes of patients often mutter to themselves.

93. There seems to be a diversity of opinion in regard to the scar on the temporal artery; Dr. Fiaschi and Dr. MacCormick failed to detect it, and the reason given is that they did not follow the ramifications of the temporal artery;—have you observed that scar? Well, I have not seen it recently. I examined the patient some years ago, and everything that was found was entered in the case-book? Whether that is entered, amongst other things, I could not tell.

94. They say that the scar on the temporal artery is very plain to the naked eye? I do not think it could be very plain when Dr. Fiaschi and Dr. MacCormick did not see it. I have here an extract from the case-book. It does not say anything about the scar over the temporal artery. According to this entry, there certainly is a very slight linear scar  $1\frac{1}{2}$  inches long below the outer canthus of the right eye. That will be a branch of the temporal artery.

95. *Mr. Meagher.*] When was that report made that you are reading from the case-book? The 22nd January, 1896.

96. I suppose there have been descriptions before that of the patient and his peculiarities? Yes; the records go back to 1879.

97. Is that scar remarked in all the reports? No; it is not in any of the previous records.
98. It does not appear to have been noticed until 1896? No. That mark may have been got at the hospital.
99. Did you notice any tattoo marks on him? No.
100. If there had been any, could they have been removed by any process? They probably could have been removed.
101. Would that leave a blotch? It would leave a cicatrix.
102. *Mr. Clark.*] Do you know whether there is a scar, blotch, or a mark on the wrist? There is a cicatrix on both sides of the wrist.
103. *Chairman.*] Which could have resulted from the removal of tattoo marks? It is possible to give a clear account of that. He said he got it by cutting something with a butcher's instruments. Whilst he was going through some butchering operations the instrument slipped, and he got a wound on the back of the arm. He was attended to by a well-known surgeon at St. Thomas' Hospital in London. There was a good deal of suppuration, and they made a counter opening on the front of the wrist. That explanation is quite feasible.
104. He is very coherent then in regard to his explanation? Yes; he never varies.
105. Does he display any annoyance during these inspections? Sometimes he gets a little impatient.
106. Does he show any inquisitiveness—does he ask the reason for these inquiries? No; he never asks about anything as long as he gets a bit of tobacco.
107. Something has been said about his having a peculiar pensive expression in his eyes? He has eyes of a peculiar blue—eyes which would draw anybody's attention.
108. His general bearing would lead you to believe that he has had a good early training? There is no doubt that there is something peculiar about his general bearing. He is different from the majority of them. He keeps to himself a great deal.
109. He is very reserved? Yes.
110. What are the peculiar characteristics that you have noticed? He keeps to himself, never associates with the others, is always clean and tidy and smart looking.
111. He is scrupulously clean? Yes.
112. Is he at all communicative? Not at all; he is very reserved.
113. Is he reserved with the officials? I do not think he speaks to them at all. He has been thirty years in the place. Years ago he was more communicative than he is now. I often speak to him, but he never answers me.
114. We have discovered that there is a difference of a quarter of an inch between his height at the time of the examination two years ago and his height at the recent examination;—is a decrease in height a common thing? Yes; it often happens. People become doubled up with age and the shrinking of cartilage.
115. Do you think it would be possible to decrease by 2 inches in stature in a life-time? I should hardly think so.
116. What would be the difference in an interval of fifty years; there is a difference between the supposed measurement of Tichborne and that of this man of something like  $1\frac{1}{2}$  inch;—is it possible for that to occur? It is rather difficult to say. It may be possible, but I cannot think it probable.
117. *Mr. E. M. Clark.*] Have you Creswell's height when he was originally admitted to the asylum? I think so. He was admitted to Gladesville before he went to Parramatta.
118. *Chairman.*] You would give a general description of him when he entered the hospital? The description given is very vague. There is an entry dated 28th December, 1882. It says:—

This patient was interviewed to-day, by order of the Colonial Secretary, by Messrs. Eckford, M.L.A., and two gentlemen introduced as Messrs. Daniel P. Spaul and Charles Webb. Mr. Wharf was also present during the early part of the interview. Mr. Spaul (the smaller man) put many questions to Creswell, appearing to bear upon life at Wopping; but Creswell gave no reply or rational answers that could be interpreted to mean anything; indeed Mr. Spaul spoke so low and appeared so deaf that very little could be expected from such a conversation. Creswell was frequently pressed by myself and others to state whether he knew Mr. Spaul, and to mention his name if he did know him; but he gave no reply. Creswell's talk was rambling, incoherent, and low in tone, and only when asked to accept anything, as rum and tobacco, did he make anything like a rational or outspoken statement. He sat staring at Mr. Spaul, and muttering to himself, and asked Mr. Spaul when he would come again to see him, as he had been promised something nice if they came again.

There is also the following entry, dated July, 1884:—

By direction of the Inspector-General of the Insane, a most careful examination was made towards the latter end of this month of William Creswell's person, paying particular attention to all marks that might be found on his body. This examination was conducted by both the Medical Superintendent and Assistant Medical Officer, which the signatures will testify. The left hand was first examined. On the ring finger was found a small arrow shaped cicatrix, between the second and third fingers was found a cicatrix on the web, and a scar was visible on the web between the thumb and forefinger, and also at the base of the forefinger. The ends of the fingers were normal. A large scar was found on the back of the hand, and measured  $2\frac{1}{2}$  inches long, while one of an inch in length was present over the inferior surface on the ulnar side of the wrist, and like an arrow in shape. A slight scar was also found on the middle third anterior surface of ulnar side of arm (left). On the right arm there are two vaccination marks, one of which is indistinct. On the right wrist there is an indistinct scar; on the ulnar anterior aspect of the wrist was a very slight mark on the internal aspect of the thumb. Ditto on forefinger, very slight, and a mark over the knuckle of the right ring-finger. On the right hand the finger ends are quite normal. The right cheek is pitted with skin vascular. The ears are of large size, while the lobes are not pierced. The left cheek is also pitted, and no tattoo marks of any description can be found on his arms. There is a slight warty growth at the back of the shoulder blades; no marks on back, sides, or armpits. The right leg shows slight exotosis over the instep of the big toe; but no marks on the right leg or thigh. There is no mark between the scrotum and anus. The testicles are both normal; no marks are found on the left thigh or left leg. No marks of any kind are found on the head, and no tattoo marks of any kind on any part of the body.

E. GODSON,  
Medical Superintendent.

119. The nature of his insanity is chronic dementia? Yes.
120. I suppose he is perfectly harmless? Yes.
121. Has he ever spoken in the French language at all? He has never showed the slightest knowledge of French.
122. Are his ears at all peculiar? One is different from the other. One is a perfect lobe, and the other is lobular.
123. Is one larger than the other? Yes.
124. Is that a common occurrence? Yes; you find hands and feet one larger than the other, and it is the same with the ears.
125. We have received information that there is  $\frac{1}{2}$  an inch difference between the ears;—if that is so, would it not be very apparent? Yes.

- E. Godson,  
M.R.C.S.  
29 Nov., 1899.
126. The right ear is  $3\frac{1}{2}$  inches, and the left  $2\frac{1}{2}$  inches;—that would be a very marked difference? Yes, very marked.
127. *Mr. Meagher.*] The mark on the temporal artery would be close to the auditory canal;—that is used for bleeding purposes, is it not? I suppose that any portion of the temporal artery could be.
128. It has been stated that Sir Roger Tichborne had been bled, and that there is a cut on the temporal artery caused by a surgeon bleeding him at Canterbury; you would naturally look in that direction to see if there were any signs of his having been bled;—do you say that no discovery was made before 1854? There was no record of it.
129. Does the mark there give you any indication that there has been a puncture made at a remote period? I forgot the mark. I have not examined the head for some time. It evidently is not a very conspicuous mark.
130. This examination would be conducted with the aid of a lens, but Drs. Pickburn and Devlin say that they do not require the aid of a lens to see this mark, and they refer to it as an old scar;—can you understand how, after careful examination only five years before, Drs. Fiaschi and MacCormick failed to find it? It was scarcely five years.
131. Can you give any rational explanation of these doctors stating that they found lancet cuts for bleeding on the situation of the temporal artery in 1899, and two other highly reputable medical gentlemen, who examined the patient two years before, saying that they could not discover those marks? They must be there. If present now it must have been there when Drs. Fiaschi and MacCormick examined the man. I cannot understand how they could have missed them.
132. The marks were there, apparently, some twelve years before they came to examine the man;—they were there, according to the records of the asylum, in 1884? Yes.
133. Of course, you know that Dr. Fiaschi and MacCormick were appointed by the Court to make the examination in consequence of an application to take this man to England? Yes.
134. Did they, to your knowledge, have access to the books of the asylum in regard to the description of the marks? No; I do not think they saw the book.
135. You have been there for eighteen years? Yes.
136. Do you know, as a matter of fact, that extracts from those books were furnished to the Court, giving the marks on the patient? Yes.
137. That, as a matter of fact, this report of 1884, containing the description of the mark, was before the Court? Yes; I know there was an extract taken.
138. It had been stated that the original Roger Tichborne had received an injury in the eye from a fish-hook;—have you noticed that on this man Creswell? There is no mention of it. When I examined him I had no list of things to find. Had I been supplied with the list I should have looked for the things referred to. I simply examined him as I would any ordinary patient.
139. He is without doubt the most noted patient that you have there? He has been notorious.
140. I do not suppose that any other patient has had the same amount of newspaper space devoted to him, and I suppose you take some interest in him? I take an interest in him as a patient; but not any more than I did in any of the other inmates.
141. Was it not known all the world over that there were certain scars on the body of Roger Tichborne? Yes.
142. Was not one of the scars, apart from the tattoo marks, a mark on the eyelid, caused by a fish-hook? Yes; I know that now, but I did not know it before. Had I known it when you sent for me I should have examined him in reference to these specific marks.
143. You say the reason why you have not seen that mark is that you had no specific question to answer? I do not say that the mark is not there; but I do not recollect it.
144. If you had had a specific question asked of you, you would have been in a better position to answer; in 1897 Dr. Fiaschi and Dr. MacCormick had that specific question put to them as to whether there was a mark on the eyelid suggestive of injury by a fish-hook, and the answer was, "We find no mark"? Yes.
145. Can you account in 1899 for these other two medical gentlemen having the same question put to them as to any mark on the eyelid which could have been caused by the insertion of a fish-hook, and answering, "Yes; there is a small rounded scar on the right upper eyelid, which might have been so caused"? He could not have had a fish-hook in his eye since; but some injury might have been done to his eyelid in the meantime.
146. Do you think those two gentlemen looking for this old scar would be on their guard against any recent one? You would suppose so.
147. Can you account for the discovery of the scar two years afterwards by those two doctors? No; I have no explanation to offer.
148. Dr. Devlin explains that the injury might have been done by a fish-hook, there being two marks as if the eyelid had been folded? Yes.
149. Did you ever examine the mouth of this man? Not internally.
150. Have you noted stunted nails on the right hand of this patient? I believe that one of his thumb-nails is peculiar.
151. About the tattoo-mark alleged to have been removed: Dr. Devlin and Dr. Pickburn say it is quite possible that the mark on the inside of the wrist may have been caused by some acid used to remove such a mark; the patient has also given an explanation to you;—in your opinion, which explanation is the more probable one? The explanation which Creswell gave. I have never doubted it for a minute.
152. In the first place, it would be rather a delicate place for tattooing, and still more delicate for removing the tattoo with acid? Yes, very dangerous indeed.
153. *Chairman.*] According to the evidence, you found that Creswell was particularly docile at the last examination? Yes.
154. And you passed an opinion to that effect to the visiting doctors? Yes; I remember making the remark.
155. You say he is of a reserved nature? Yes.
156. Very fond of smoking? Yes.
157. But he will not attempt to obtain tobacco by surreptitious means; he would go without rather than take it out of another man's pocket? I think he would.
158. *Mr. Clark.*] Did you notice the peculiar manner in which he sat on a chair whilst going through the examination—a manner that is said to have been a peculiarity of Tichborne? Yes; but that is a very common attitude.

159. *Chairman.*] In regard to his walk, does he limp? I never noticed him limp. I have seen nothing very peculiar in his walk.

160. Are his legs bowed at all? I do not think so. I will examine him. I should not like to commit myself to definite answers without doing so.

E. Godson,  
M.R.C.S.  
29 Nov., 1893.

Edward Priestman recalled and further examined:—

161. *Chairman.*] Have you a further statement that you wish to make to the Committee? Yes; a written statement, which I will read. It is as follows:—During the five years in which I have fought for justice for Creswell, or rather Roger Tichborne (whom I am absolutely convinced Creswell really is), I have, I feel sure, carried the good wishes of all right-thinking men as regards the efforts I have made in furtherance of the end I wish to attain. When I visited the Parramatta Asylum five years ago I went there purely to satisfy myself by close observation that there was really some truth, or foundation of truth, in the theory that Creswell was in reality Roger Tichborne. In less than ten minutes I was satisfied on the point of identity. The family likeness is striking—the large light-blue eyes, the marvellous twitching of the eyebrows, the slight limp noticeable in the walk, all tended to assure me at this early stage; but when I looked closer and saw the mark of the fish-hook through the eyelid, the odd ears, the cut on the temporal artery, the lump on the instep, and last and not least, the air of mystery innate in the man, I was confirmed in my belief absolutely. The marks and peculiarities enumerated above, I have sworn to; and it may be better imagined than described what my sensations were when most of these marks and peculiarities were refuted by eminent medical men such as Drs. Fiaschi and MacCormick, and the publication of whose evidence rendered me an object of derision, if not worse. To remove this impression has since been the object of my life. I felt certain that, could I obtain a Select Committee of Parliament, the wrong which I considered I had received would be righted. That this is in a fair way of being accomplished, I feel certain, and I wish to tender my most heartfelt thanks to Mr. Fitzpatrick and several other Honorable Members for what they have done. During my long fight, I have discovered much that may be of interest. In the first place, Dr. Manning and several others assert that Creswell is Creswell pure and simple, and that he was proved so in Court before the late Sir William Manning in 1884. If the gentlemen present will turn to the book I lately wrote on the Tichborne case and read part vi, they will find that this latter assertion is not true, and that Creswell really went back to the Asylum from the Court without a name. This will be more fully realised if the Committee will cause the papers in the Equity Court connected with the 1884 movement to be laid before them. I understand that the Medical Superintendent at the Parramatta Asylum has been in communication with the alleged Creswells, brother and sister, up to the time of both their deaths—the brother having died some ten or twelve years ago, the sister more recently. Inquiries have been rigidly instituted by a friend of mine in London, on whom I can thoroughly rely, and he informs me that the remaining survivors of the Creswell family have very hazy ideas about any relationship with the Parramatta patient. When the late Mr. Justice Manning expressed himself in Court in 1897 as being absolutely satisfied that the Parramatta patient was in reality Wm. Creswell, of Strathfieldsaye, I at once wrote to a gentleman friend of mine in London, and asked him to procure for me, from the sole surviving son of the Thomas Creswell who was out here in 1884, a power of attorney to procure the release into my hands of his alleged uncle. The answer my friend received was, "Give me £300, and I will give Mr. Priestman the power of attorney." Arrangements were attempted to be made, so that this money might be raised, but when at the point of success, my friend was told (so he informed me) that this Thomas Creswell's uncle (the Parramatta patient) owned property at Strathfieldsaye, in Hampshire, which would revert to Thos. Creswell in the event of the patient's death in the asylum, and Thos. Creswell was afraid that if the patient was released, he might will the property to someone else. This, added to the fact that the deceased Thos. Creswell swore before Sir William Manning, in 1884, "that he desired to find his brother William, because he was entitled to some of the Strathfieldsaye property," is sufficient to show that if the Parramatta patient should be really Wm. Creswell the taxpayers of this Colony should be no longer saddled with his maintenance. Regarding the marks, &c., on the alleged Wm. Creswell, it rests with the Committee as to whether it is necessary to bring to Sydney any of the witnesses whose evidence was read at my application before the late Justice Manning, in 1897. Personally, I would recommend that the following very material witnesses come to Sydney to identify Creswell in the asylum as the man whom they knew, viz.:—Mr. John Thomas Walker, saddler, Goulburn; Mr. Francis Devlin, wholesale butcher, Temora; Mr. Luke Cullen, attendant at George-street Asylum, Parramatta; Mr. William E. Forbes, Riverstone Meat-works, Riverstone; Mr. William Marshall, house and land agent, Australia-street, Newtown; Those in my mind would be ample, as the evidence they can give is very strong. Anent the tattoo mark which several of my witnesses swear to as being on the back of Creswell's left wrist, I think if the Committee look through the evidence adduced at the 1884 trial, it will find that Thomas Creswell deposed to the fact of his brother William's arm being ripped up by the meat-hook from the left armpit to the elbow, and in a different locality altogether to where the scar is on the alleged Wm. Creswell's wrist. I would also like to suggest to the gentlemen of the Committee that they order the Receiving House books of 1870 and 1871 to be produced, as also the alleged Creswell's belongings when he first entered the Asylum at Gladsville. Of course, at the time of writing this I am more or less in the dark as to the late examination of Creswell by Drs. Pickburn and Devlin. If the marks and peculiarities are deposed to by them as being identical with those known to exist on and in the lost Roger Tichborne, then the gentlemen composing the Committee must be convinced that Creswell is really Roger Tichborne; and I would respectfully suggest to the Committee that Drs. Pickburn and Devlin's evidence is given on oath, whilst Drs. Fiaschi's and MacCormick's was a simple statement, and I was not permitted the privilege of having them put in the witness-box at the proceedings in the Equity Court, in 1897, before the late Judge Manning, and having them cross-examined. In any case, I would like to impress upon the Committee the fact that I am willing to take charge of Wm. Creswell, whether proved Roger Tichborne or not, and take him to England; and I can find sureties to enter into the necessary bond for his safe custody, transport, and future maintenance. I hold power of attorney from the Rev. E. Williams, of London, to act for him in procuring the delivery into his hands of William Creswell under that name simply. I have my own opinions as to Creswell's sanity, and make free to say that I am absolutely convinced that his presumed insanity stops short at eccentricity.

E. Priestman.  
29 Nov., 1893.

THURSDAY, 7 DECEMBER, 1899.

Present:—

MR. E. M. CLARK, | MR. DACEY.

J. C. L. FITZPATRICK, Esq., IN THE CHAIR.

Edwin Godson, M.R.C.S., Medical Superintendent of the Hospital for Insane, Parramatta, recalled and further examined:—

- E. Godson,  
M.R.C.S.  
7 Dec., 1899.
162. *Chairman.*] I think some reference was made on a former occasion to you making an examination of certain marks on Creswell? Yes.
163. Have you examined William Creswell for any marks or peculiarities since you last were before the Committee? Yes, I made a thorough examination yesterday afternoon.
164. Will you state the different marks and peculiarities which you noticed? On a former occasion I could not swear whether there was or not a mark on two particular places—the temporal artery or over the right eyelid. I examined him yesterday and I could see neither of the marks. I was not satisfied with my own examination, but sent for Dr. Reid, who also examined him. There was nothing which we could swear to as being a puncture or wound either on the eyelid or right temple. We not only examined him with the naked eye, but also with a powerful lens.
165. How long have you been connected with the Asylum? About eighteen years.
166. During the whole of that time have you found Creswell to be perfectly harmless and amenable to discipline? Yes, he has caused us no trouble.
167. Is there any other feature of the examination to which you would like to make reference? On a former occasion I said I thought there was something peculiar about his right thumb, but I find that the fingers, thumbs, and nails are perfect, excepting that the right thumb is not so long or so deeply bedded at the matrix as the left thumb. That is accounted for from the fact that Creswell always breaks his tobacco with the right thumb. We do not allow the patients knives to cut tobacco. That, however, is nothing abnormal. His thumb-nails and finger-nails are perfectly normal.
168. Is there anything further you wish to say? I think those are the principal things about which I was in doubt. The in-knees and the size of the feet and ear are absolutely proved. The right ear is very much longer than the other, half an inch. The feet are the same length. I measured him again, and he was exactly 5 feet 7 inches high.
169. *Mr. E. M. Clark.*] Did he go the full height? You might say so. Perhaps he was one-sixteenth or one thirty-second part of an inch less.
170. *Chairman.*] When the case was heard at the instigation of Mr. Priestman, some time ago, reference was made by Dr. Manning to the fact that two letters were found on Creswell at the time he entered the asylum, one alleged to be from his brother, Thomas Creswell, and the other from Mrs. West; are you aware of their existence? No, I am not personally aware of them, but I do not say they are not in existence. Any letters or property found on a patient are detained until he is either dead or discharged.
171. *Mr. Dacey.*] In whose possession will they be? In the possession of the Assistant Superintendent who keeps all the records and patients' property.
172. Was this officer there at the time of Creswell's admission? No; there have been several there since then.
173. Have you been there longer than the Superintendent? Yes.
174. How long was Creswell in the Institution before you joined it? About ten years.
175. *Mr. E. M. Clark.*] Are the records sent to the Master in Lunacy? They are always kept, and the Assistant Superintendent could produce them.
176. *Mr. Dacey.*] What was the date of Creswell's admission? I am not quite sure; but I know it was about twenty-eight years ago.
177. Have you noticed any alteration in him during the time you have been there? No, he is about the same mentally. He has altered a little in appearance, and has got greyer.
178. *Mr. E. M. Clark.*] I suppose that when you made your examination you were acquainted with the whole of the distinguishing marks which were supposed to be on Tichborne? Yes, I read Mr. Priestman's book a little time before.
179. Then, if Drs. Devlin and Pickburn claim that Creswell has certain marks over the eyelid and on the temple, you think they must be wrong? That is my opinion. I could not see anything there to which I could swear. Mr. Wilkes, on a former occasion, remarked that Dr. Devlin stated that a particular mark was so palpable that it could be seen without the aid of a lens, but, even with the aid of a lens, I could not swear that it was there. There are various puckerings of the skin. He is very weather-worn, and the blood-vessels are corrugated and enlarged, and I might easily mistake one of them for a scar. I do not say that the scar is not there, but it is not sufficiently clear for me to swear that it is there. Certainly I could not find it.
180. I suppose your examination lasted some time? For nearly an hour—fully three-quarters of an hour, and most of the time was spent about the eyelid and the region of the temple. He was a little difficult to examine at first. It was a terribly hot day, and it took me some time to examine his eyelid particularly.
181. *Chairman.*] I do not know whether you were asked, on a former occasion, a question as to the period of time which was occupied in the examination by Drs. Fiaschi and MacCormick? Yes; I was then not sure of the length of time occupied, but I am sure now that it was one and a half hours at least.
182. *Mr. E. M. Clark.*] The question was put to Dr. Pickburn, "Has Creswell any marks on the eyelid which could have been caused by the insertion of a fish-hook?" and his reply was, "I am satisfied that there is a small roundish scar on the right upper eyelid, which might have been so caused?" I could not find the mark. There was something like an injected capillary over the top of the eyelid, but I do not say the scar is not there, but I do not think it is there. I could not see it with the lens or without it. Is there any question of Creswell or Sir Roger Tichborne ever having a pustula eruption, such as small-pox, because this man is covered with some pustula eruption, which has come from small-pox or something of that kind? I asked him if he had had small-pox, and he said his mother would tell me.
183. *Mr. Dacey.*] Do you know how old he is? Yes; he always gives the same answer when you ask him. If you ask him, he will tell you that his name is William Creswell, that he was born at Mortimer, near Reading, in Berkshire, on 8th May, 1828. If you ask him when he came out here and by what boat, his reply is, "The Maid of Judah." He never varies in his answers.



184. Have you seen or heard anything to make you alter your opinion that this man is no other than the man you believe him to be? None whatever.

E. Godson,  
M.R.C.S.

185. *Chairman.*] Do you think that it is probable that certain statements have been made to him during the last twenty-five or thirty years—that have been so dinned into his ears—that he has learnt them parrot-like? To a certain extent his answers are parrot-like, because his mind is gone, and he could not learn anything. I, myself, do not doubt his story for one moment; I accept it as absolute gospel.

7 Dec., 1899.

186. Would you doubt his story if you were aware of the circumstance that in the year in which he alleges he came out in the ship called "The Maid of Judah," there was no such ship in existence? He would not tell me the year he came out. I asked him, and he did not say.

187. *Mr. Dacey.*] Is it known when he was in the Colony before being admitted to the Institution? I do not think so. He was admitted from Gladesville about thirty years ago. He was there for twelve months, and was then discharged as recovered. It was at that time that he told Dr. Manning all about his left hand, and how the supposed scar was caused.

188. You have not heard him say how long he was in the country before he entered Gladesville? No.

189. *Chairman.*] With the exception of the statements he has made to you in the fashion he usually adopts, has he ever spoken rationally in regard to any other subject? Not to me. I may say that on Sunday I tried to examine his eye and the side of his face, but he would not let me touch him.

190. *Mr. Dacey.*] Is there any person now connected with the Institution, officially, who was there at the time of his admission? No.

191. Is he a man addicted to drink? He will not touch it, but it is on account of a delusion on his part, because he thinks it is poison. On one occasion I offered him some rum in my office, but he would not touch it.

TUESDAY, 12 DECEMBER, 1899.

Present:—

MR. E. M. CLARK, | MR. MEAGHER,  
MR. WILKS.

J. C. L. FITZPATRICK, ESQ., IN THE CHAIR.

John Richard Moore, Acting Superintendent, Reception-house, Darlinghurst, sworn and examined:—

192. *Chairman.*] I believe that intimation was given to the authorities to the effect that we desired to see the records for 1870 and 1871? Yes.

J. R. Moore.

193. Will you kindly read them? The first entry in regard to Wm. Creswell is dated 12th January, 1871:—

12 Dec., 1899.

From Braidwood Gaol, in transit to Gladesville; certificate signed by R. H. Gentle and Rees Llewellyn. Patients age, 42. Religion—Roman Catholic. Native place—England. Late residence—Goulburn. Previous occupation—Butcher. Married, but separated from his wife. Form of mental disease—Monomania. Supposed cause—Not known. Has he any disposition to refuse food?—No. Is he disposed to injure himself or others?—No. Have any medical means been employed?—No. Is patients' bodily health good?—Yes. Describe particulars of disease—Continually writing to the Earl of Belmore. What property has he with him?—One gold ring, one knife, tobacco-pouch, opossum rug, quart-pot, and leather vest. Address of patients' friends?—Has no friends.

The entry for 12th January, in the symptoms book is:—

William Creswell, aged 42. From Braidwood, in transit to Gladesville Asylum. Swarming with vermin. Some of his clothes have been buried as the only means of getting rid of the lice. Transferred to Gladesville, 13th January, 1871. Diet, ordinary.

That is one of the entries. Then there is another:—

William Creswell. Admitted 8th August, 1871, from Central Police Office. Medical certificate signed by Drs. Marshall and Egan. Age, 43 years. Religion—Roman Catholic. Native place—England. Residence—Camden. Previous occupation—Gold-digger. Married; no children. Form of mental disorder—Mania. Has any personal restraint been employed?—Yes. Has the patient been insane before?—Yes. Have there been any lucid intervals?—Yes. Have you observed any change or peculiarity in his habits lately?—No. Has he shown any disposition to refuse food?—No. Is he disposed to injure himself or others; state which, or if both?—It is feared so. Has he ever been in any asylum for lunatics? Yes; Gladesville, January last. Is the patient's bodily health good?—Yes. Describe the particulars of the disease?—Has various delusions about being entitled to money which is withheld from him, incoherent, and flighty. What property has he with him?—None.

Another entry is:—

William Creswell; aged 47. From C. P. Office. Very lousy, body and clothes. Clothes in such a filthy condition, alive with vermin, that they must be destroyed. Discharged to Gladesville Hospital, 14th August, 1871.

194. *Mr. E. M. Clark.*] There seems to be a discrepancy in regard to ages;—how are the ages obtained? From the patients themselves.

195. *Chairman.*] Is there any means of securing the presentation before the Committee of the articles enumerated in the first description? They would be forwarded with the patient to the Gladesville Hospital when he was transferred from the reception house to Gladesville.

196. A ring and a leather vest are mentioned;—both play a prominent part in the Tichborne case? I do not know whether they will be at Gladesville or not. He was apparently discharged from there before 12th August. When a patient goes away, his property is generally returned to him.

197. *Mr. Wilks.*] You have stated that one form of his mania consists in writing letters to the Earl of Belmore;—is there any chance of getting any of those letters, or of ascertaining their nature? I could not say. They are not at the reception-house. The only paper we keep at the reception-house is the order from the justice of the peace for admission. I could not tell you the subject-matter of any of his letters.

Harold Mapletoft Davis, licensed surveyor, sworn and examined:—

198. *Chairman.*] Some years ago you were, I believe, located in the Queanbeyan district? Yes, for a long time.

H. M. Davis.

199. In what part of it? Gininderra and Queanbeyan.

12 Dec., 1899.

200. During your residence there were you brought in contact at any time with a man who went by the name of Creswell? Yes; I knew him intimately.

201. Have you seen him of late years? Not for the last thirty-four or thirty-five years.

- H. M. Davis. 202. Will you state how you came in contact with him? When I first came in contact with him he was groom for Mr. George Campbell. I used to meet him at Gininderra, in cricket-matches. He was a great cricketer. He was a man about my own height; perhaps a little taller.
- 12 Dec., 1899. 203. Was there anything striking about him? There was a peculiarity about his eyes; he used to wink when he spoke to you. He remained with George Campbell for some time. He was very fond of drinking, and he caused several accidents through capsizing buggies. Campbell then got rid of him. My brother, who owned Gininderra, being an ardent cricketer, thought it would be a good thing to get hold of him. At that time, and until he was married, he went by the name of George Smith. My brother hired him on the understanding that he would give up drinking. I was living at Gininderra at the time, and saw a great deal of him. We had several conversations; but nothing was said about his family. There was something peculiar about him; I could not make him out at all.
204. Did he ever tell you anything with reference to his antecedents? No; excepting that he came from Strathfieldsaye. He appeared to know that place better than any other, and it was the only one about which he spoke to me.
205. I believe that some time after you got to know him he got married? Yes. At that time I was surveying on the property of Mrs. Clarke, the woman he married. She was a widow, and kept an hotel at Jerrabeggarie. It was not until after he met Mrs. Clarke that I got to know that his name was Creswell. Mrs. Clarke was at Gundaroo, and Creswell was at Gininderra. I was camping near to Mrs. Clarke's place. She had seen Creswell at a cricket-match at Gundaroo, and she took a fancy to him. He also took a fancy to her. He used to give me notes for her, and she gave me messages for him when I went home on Saturday. I did not think there was anything serious in the matter. On one occasion, however, he gave me a letter, and told me that he intended to "pop the question to the old widow" as he called her.
206. *Mr. Clarke.*] I suppose that in those days he was not regarded as being mad? No. He was, however, always eccentric in his ways. She accepted him. Some time after that I drove him down to see her, and they named the day. On a subsequent occasion he got me to drive him down to see Mr. Smith, the clergyman. He wanted to get the license. It was on that occasion that he told me that his name was Creswell. We were about 7 miles from Mrs. Clarke's place when he suddenly stopped talking. After travelling some distance, he said: "Must I get married in my own name?" I replied: "I should think so. If you do not you will only perjure yourself." He remarked: "That is not pleasant," or, "That is awkward." I said: "If I were you I would give my right name." He then added that Smith was not his name, and after some consideration he added: "If I must have a name, I will have a good one. I will be Sir William Creswell Creswell, Bart.; I ought to be one if I am not." I did not take any particular notice of that at the time, but afterwards I thought more of it. He got the license, and gave his name as Wm. Creswell, and he always went by that name afterwards. I was at his wedding in Gundaroo. I saw very little of him afterwards. I went from Gininderra to Queanbeyan, and he always came to see me when he came to town.
207. And you have not seen much of him since? Not since he parted from his wife.
208. Did they live together long? I think not—twelve or eighteen months. There was one peculiarity about his marriage. As soon as he came back from the church, after the wedding, the first thing he did was to call his wife "Madam." I asked him why he did not call her by her Christian name. He answered: "I do not know what her Christian name is." He always called her Madam.
209. I think I saw a letter written by yourself to the *Daily Telegraph* or *Sunday Times* the other day? Yes; that was a letter I wrote to Mr. Priestman.
210. What are the circumstances associated with the writing of that letter? I was passing Dymock's, in George-street, last week, when I saw a book outside the shop, entitled "The Tichborne Mystery." One of the illustrations in the book was a likeness, and it attracted my attention, because I considered it to be a splendid likeness of Creswell, as he was when I knew him. I bought the book and took it home, and, to my astonishment, when I looked at it, the photo was not a photo of Creswell, but of Sir James Tichborne. The resemblance struck me so forcibly that in the afternoon I wrote to Mr. Priestman and told him about it.
211. There was a very great likeness? A very great likeness to what Creswell was when I first knew him. Creswell was rather broad-shouldered—a stout, strongly-made man.
212. *Mr. Wilks.*] You state that he had peculiar eyes,—was there a pensive look in them? I do not know that I have noticed that. He had a very round, light-blue eye.
213. Was it more of a merry eye than a pensive eye? I do not know about that. He had a habit of winking when he was speaking; it was something like a nervous twitching.
214. You have stated that there was something peculiar about him,—what do you mean by that? I mean that he was eccentric.
215. Were you ever led to believe that he was "ratty," or not at all right mentally? Not at all.
216. After he told you that if he were to have a name it would be Sir Wm. Creswell, Bart., did he again refer to the question of the baronetcy? No; I do not think that he referred to it again.
217. Did you pass any remark about the matter at the time? No.
218. *Mr. E. M. Clark.*] I suppose that when he told you he was Sir William Creswell he was in a jolly humour, seeing that he was about to be married? I suppose so.
219. Was he, generally speaking, a man of cleanly appearance and habits? Yes, very. He was "natty" and tidy.
220. How old would he be when you first knew him, thirty-five years ago? I used to take him to be about my own age, and I am 68 now. I should say that he was 30 or 33 when I last saw him.
221. Had you read anything about this case prior to seeing the book at Dymock's? No.
222. Were you aware of the Committee's existence? No.
223. You say you wrote to Mr. Priestman? Yes.
224. Do you know him? No; I have never had the pleasure of seeing him, but I have had letters from him.
225. Dealing with the Tichborne case? Yes; two years ago, when I was living at Gundaroo.
226. Did the letters from him ask for information? Yes; I was told by Mr. Jenkins, in the first instance, if I had any papers or letters, to forward them to Mr. Priestman, but I had none.
227. Did you notice any reserve about Creswell? He was very much reserved. He would not tell you anything about his private affairs at all,

228. Did you form the impression that he was a man who had had an excellent training in his youth? I thought he was considerably above his station. H. M. Davis.
229. Did he give you that impression on account of his conversation and general bearing? Yes. I used to think sometimes that he was rather overbearing in his manner. For instance, he regarded himself as being quite my equal. I was a new chum at the time, and did not like it. 12 Dec., 1899.
230. Your station in life was superior to his? I considered so. The more I saw of him the better I liked him.
231. Did you ever have any conversation with his wife after they were married? Yes; I saw her after she left him.
232. Did she ever say that he told her that he was anything but Creswell? No.
233. Was she a woman who was inclined to be chatty? Sometimes she was.
234. Do you think that if she knew that he was entitled to a title she would have been glad to ventilate the fact? I could not say. I do not think she was ambitious enough for that.
235. Do you think she would have made you acquainted with the fact if he had told her that he was entitled to a baronetcy? If he told her that I think she would have told me.
236. Did you see them together during their married life? No.
237. Do you know whether they were on terms of attachment or not? I do not. I do not think they lived happily together, because shortly after Creswell married her—in fact, on the very day he got married—he took to drinking again.
238. Was she older than he? I think so.
239. You say that he was about your height, or a little taller;—what was your height? About 5 ft. 8 in. Standing by the side of him he appeared to me to be about my own height.
240. You have stated that he was a good cricketer;—was he a good all-round cricketer? Yes; a good all-round cricketer. He had a very peculiar way of standing on his left toe when he was going to hit a ball.
241. *Mr. Wilks.*] Did you notice any tattoo-marks on his arm when he was playing cricket? I could not say that I did. He always wore a very broad strap round his left arm.
242. Might that have covered any mark? It might; it was from 3 to 4 inches wide.
243. *Mr. E. M. Clark.*] Did he always wear the strap? Yes; round his left wrist.
244. *Mr. Wilks.*] Did you look upon it as a wrist-supporter? I suppose so.
245. *Mr. E. M. Clark.*] Was it an uncommon thing for people to wear wrist-straps of that kind in those days? Yes.
246. Did you ever notice any limp about him? There was a peculiarity in his walk, but he was not what I would call lame.
247. Did he hobble? Yes, at times; at other times you would not notice it.
248. Were his legs perfectly straight? I think so. He was very military in his habits. I feel sure that he had had a military training from the way in which he used to keep his saddle-room and his horses. He used to roll his saddle-straps through the buckle, instead of leaving them slack.
249. I suppose he always adhered to the statement that he was born at Strathfieldsaye, even when he was going by the name of George Smith? I do not think I ever heard him mention Strathfieldsaye until I knew him as Creswell.
250. Did he appear to know a good deal about that part? Yes.
251. Did he ever speak of any other part of England? Not to me. He used to tell me about the Duke of Wellington's charger, and how often he had seen it.
252. Did he ever speak about coming to New South Wales, or of the ship which brought him? No; he was very reticent.
253. Did he ever mention the date of his birth? No.
254. *Chairman.*] Did he ever say that he had been on the Continent—France, for instance? No; I have heard him make use of French expressions. He told me he had seen a good deal of the world.
255. Have you seen his handwriting? Yes.
256. Did he write a good hand? Yes; very fair.
257. There is a copy of one of his letters in the book published by Mr. Priestman;—does that correspond with his handwriting, as you remember it? Yes; there was a peculiarity about his "t's," which I remember.
258. Were you in Queanbeyan when he was imprisoned for committing an assault? I remember that he once committed an assault; I think I must have been in Queanbeyan at the time. In the letter published in Mr. Priestman's book Creswell refers to me to give him a character. The person to whom he addressed the letter was Mr. Freestone, a solicitor.
259. *Mr. Wilks.*] What were the French expressions which you heard him make use of? They were short exclamations.
260. Were they French curse words? Some of them were.
261. They were not cultured expressions? No.
262. *Mr. Meagher.*] Do you speak French yourself? No.
263. What was the date of the marriage with Mrs. Clarke? Between 1862 and 1865.
264. Did Creswell ever tell you he had been in Victoria? I have heard him speaking of the Victorian diggings.
265. Did it strike you that he had had some experience of the Victorian diggings? He said he had been on the diggings in Victoria.
266. Did he ever in the course of conversation, when relating his experiences in Victoria, mention the name of Arthur Orton? Not that I am aware of.
267. Did he ever mention the year in which he had been on the diggings in Victoria? No; he said casually that he had been on the diggings.
268. Were there many people present when the marriage with Mrs. Clarke took place? No.
269. How many? We had breakfast after we came back, and I think there were four of us—Creswell and his wife, somebody else who came from the church, and myself.
270. Did you ever meet a man called Stafford Lett, from Victoria; and was not Mr. Lett one of those who was present when Creswell married Mrs. Clarke? I do not remember him. I do not say he was not there; but I do not remember him.
271. Was there any man there whose name you did not know? No, there might have been some one in the other part of the hotel.

- H. M. Davis. 272. Did he ever speak to you of a Victorian friend whose name I have mentioned? —  
 12 Dec., 1899. 273. When speaking of the Victorian gold-fields did he mention the name of John Stafford Lett? Not that I know of.
274. If Mr. Lett has sworn upon oath that he was present at the marriage ceremony, you would not care to say that he swore what was incorrect? No; at the same time I do not remember him.
275. If he says that at the marriage ceremony he remembers Creswell, whom he had known as Smith in Victoria, stating that he was William Creswell, you would not deny it? No.
276. Can you remember anyone being present who was surprised at hearing him declare his name at the marriage ceremony as William Creswell? No.
277. You have stated that he called Mrs. Creswell "Madam"? Yes.
278. Are you prepared to say whether he pronounced the word with the proper French accent? No; I think it was Anglicised.
279. Are you a sufficiently competent French scholar to say whether he pronounced the other French words he uttered with the accent of a man who has had a training in French? He struck me that he pronounced them as a Frenchman would pronounce them.
280. Mr. Wilks has asked you whether you considered the expressions he made use of were coarse expressions;—is your knowledge of French limited? Yes.
281. You are not in a position to say whether the words he used were of a high or low character? I do not think they could be of a low character, because I have heard ladies in the Old Country use the same expressions. They are French ejaculations which you often hear.
282. Did Creswell seem to trust more in you than in anyone else? Yes.
283. You have stated that when playing cricket he used to stand in a peculiar attitude;—I suppose you know that when boys at English colleges learn cricket they usually develop the peculiar attitude of their coaches? I have seen some of the old English cricketers at Canterbury adopting the same attitude as that which Creswell adopted.
284. Have you seen Creswell since he has been in the asylum? No. I applied to Mr. Critchett Walker on one occasion for an order to see him, and he said that if Dr. Maurice O'Connor would give me a pass to see him I could see him. He subsequently asked me not to bother about the matter, because the man had been so worried that he had gone off his head altogether. He asked me why I wished to see him, and I said that I wished to see if he recognised me, or whether he was the man whom I remembered. However, I withdrew my application.
285. *Mr. E. M. Clark.*] Did you recognise the writing in the letter which is published in Mr. Priestman's book as Creswell's handwriting? Yes.
286. What was he doing when he wrote that letter? He was living with his wife at that time. I may mention that he had a little black pocket-book about which he was very particular. I do not know what become of it. He used to keep his papers in it, and was very careful not to let anyone see what was inside.

Luke Cullen sworn and examined:—

- L. Cullen. 287. *Chairman.*] You are at present employed at the Newington Asylum, Parramatta? Yes.  
 12 Dec., 1899. 288. I believe that some years ago you were in the police force? Yes.
289. Where were you stationed? At Tumut and Wagga.
290. Did you ever meet a man named William Creswell? Yes; I arrested him.
291. How many years ago? I think it was in 1863 or 1864, but I have had a sunstroke since, and it has affected my memory.
292. Where did you arrest him? At Tumut.
293. On what charge? Being of unsound mind.
294. Had you ever come in contact with him before that time? Yes; I had spoken to him on several occasions at Tumut, and I saw him some years before that in Wagga Wagga when he was working with Arthur Orton.
295. Did you know Arthur Orton? I saw him once. I was on a visit to Wagga, and I happened to meet the two of them in the "Commercial Hotel."
296. Was there a considerable amount of difference between the personal appearance of Arthur Orton and Creswell? Yes, one appeared to be a fat, bloated, ordinary-looking man.
297. Who was that? Orton; the other was a military, gentlemanly-looking man.
298. Had you any conversation with Creswell at that time? No; but I had with Orton. I was a stranger in Wagga at the time. I was on bush duty. I went into the tap-room or parlour of the hotel, and called for a drink. Orton and Creswell came in whilst I was sitting there. Creswell went right through, as if he were going to the back-yard, and Orton sat down. He said to me, "Do you know that man who has gone through?" I replied, "No; I am a stranger here, and I do not know you or him." He said, "He is a strange card that." I asked in what way. He replied, "That man ought not to be knocking about the country. He ought to be at Home. That man would become one of the wealthiest men in England if he would only stay at Home and look after his own property." I put it down to a bit of "gas." Some time afterwards I happened to see Creswell in Tumut. I had been transferred to Gundagai and Tumut, and I saw him there butchering. What Orton had said to me struck me, and a short time afterwards in looking over the *Police Gazette*, I noticed that a reward of £1,000 was offered to anybody finding the whereabouts of Sir Roger Tichborne. On account of what I heard from Orton, in Wagga, I wrote to the Inspector-General of Police, stating that I believed Creswell was the man, and that he answered the description. The Inspector-General wrote back to this effect: "From inquiries I have made, I have no doubt whatever that you have pointed out the right man as the long lost heir, Sir Roger Tichborne, for which you will be entitled to £1,000 reward." After that, I never heard another word from the Inspector-General of Police. He seemed to hush the thing up. I wrote to him again, however, from the George-street Asylum. I was in the hospital there, and when I got well I wrote to Mr. Fosbery, asking him if he had made any further inquiry about the man. He replied asking me to have nothing further to do with the matter.
299. In what year was that? In 1869.
300. I do not think Mr. Fosbery was Inspector-General then;—was it not Captain McLerie to whom you wrote? I do not think so.
301. What did you do with the answer you received? I could not tell you; but I remember it well, and the Inspector-General of Police does not deny it. He told Mr. Priestman that if I applied personally for the letter or letters I wrote I should get them. 301.

302. *Mr. Wilks.*] Did Creswell tell you on several occasions that he belonged to the best blood in England? Yes. The first time I heard him say that was after I brought him before the police magistrate and returned him to the cell. He said, "That fellow has ordered me here. He does not know me; I belong to the best blood in England." I have heard him say the same thing on several occasions. L. Cullen.  
12 Dec., 1899.
303. *Chairman.*] You arrested him at Tumut on a charge of being of unsound mind? Yes.
304. What was the result? An order was made to have him forwarded to the Lunatic Asylum.
305. Was he violent at the time? When I arrested him he appeared to be very violent. He had an American axe in his hand and a bowie-knife, and was threatening to chop down anyone who came near him.
306. *Mr. E. M. Clark.*] Did you ever notice any marks on either of his wrists? He had marks upon him, but I forget what they were. There was one peculiarity about him which I could not forget. He had a habit of twitching his eye or eyes when speaking to me.
307. Was it a nervous twitching? It appeared to be so.
308. *Chairman.*] When did you last see him? About thirty years ago. I think I would know him again if I saw him. He gave me an impression that he had served in the army. When he was in the cells he tore a red, blue, and white blanket into strips, and put the strips around him as though it were a belt. He also made epaulettes for his arms. He marched up and down the cell and shouted out orders as though he were putting men under his command through their facings.
309. *Mr. Meagher.*] You say that it was in 1869 when you saw an advertisement offering £1,000 reward for the discovery of Sir Roger Tichborne? Yes.
310. Was there not a good deal of talk in the locality in which you were stationed about this advertisement? No. I never heard it mentioned by anybody but the police themselves. The police do not usually speak of these things publicly.
311. Was not the advertisement in the local newspapers? I do not think I ever saw it in the local newspapers. I saw it in the *Gazette*.
312. You received a reply from the Inspector-General to the effect that apparently you were on the right track? Yes.
313. Did you show his note to any of your friends? No. In connection with these matters letters are generally written to the office in charge, who reads them, or gives them to the constable to read. He retains them, and does not hand them over.
314. Who was your superior officer? Sergeant Thomas Tant. He is now a night-watchman in Sydney.
315. *Mr. E. M. Clark.*] Do you know if there was any companionship between Orton and Creswell;—did you ever hear of their being in company after you saw them at Wagga Wagga? No. I heard that they were partners in a butchering business at Wagga Wagga.
316. *Mr. Meagher.*] It was in 1869 that you saw the *Gazette* containing the notification respecting Tichborne? —
317. Do you remember that in the early seventies the whole of the Press was ablaze with the account of the great Tichborne trial? Yes.
318. Did you read in the Press at the time that those who were interested in keeping the estate were making out that the claimant was Orton, and not Tichborne? Yes.
319. Seeing those statements in the Press, did you communicate with the head of the police, or with anyone in England, stating that you remembered Orton as a butcher, and that you also remembered a man with a military bearing, and an air of superior training, being in his company;—did it strike you that you could have given information to show that Orton had the means of knowing the whole of the history of Tichborne? That was the first occasion on which I thought Creswell was Tichborne, and I communicated with the Inspector-General, and no doubt he has my letter yet. Having had a sunstroke I have been thrown out of my reckoning in regard to dates.
320. Seeing the reports in the newspapers to the effect that an attempt had been made to show that the claimant was Orton, a butcher, you communicated with the Inspector-General of Police? Yes.
321. Did you ever hear Creswell make use of any French expressions? I once heard him speaking to a French watchmaker in Tumut. The watchmaker kept a shop, and Creswell kept a butcher shop next door. The shops were opposite the court-house, Tumut, and belonged to Mrs. O'Mara. After Creswell went away I said to the watchmaker, "That man seems to be able to speak French as well as you." He replied, "Yes, and better than I; that man is an educated gentleman."
322. He seemed to have no difficulty in speaking fluently with the Frenchman? None.
323. And you were quite clear that the Frenchman afterwards told you that he was a highly-educated man, and could talk French better than himself? Yes. His expression was, "He is one school gentleman; he speak the French better than I do."
324. *Mr. E. M. Clark.*] Did you notice Creswell wearing anything around his wrist? No; he had no strap on him when I arrested him. If he had had any I should have had to take it off.
325. Had he any tattoo-marks on him? Yes, but I could not swear what they were. Of course, if he had been a criminal, I should have searched for every little mark or scar upon him.
326. *Mr. Meagher.*] But you are clear you saw some tattoo-mark, but where you could not say? That is so.
327. *Mr. E. M. Clark.*] Did you notice any peculiarity about his walk? He had a peculiar walk. He walked very erectly. He walked in such a way as to give you the idea that one leg was a little shorter than the other, or that there was something wrong with the knee.

WEDNESDAY, 13 DECEMBER, 1899.

Present:—

MR. E. M. CLARK.

MR. MEAGHER.

MR. WILKS.

J. C. L. FITZPATRICK, Esq., IN THE CHAIR.

Harold Mapletoft Davis, licensed surveyor, recalled and further examined:—

328. *Chairman.*] Have you seen William Creswell at the Parramatta Lunatic Asylum this morning? Yes H. M. Davis.  
13 Dec., 1899.
329. Have you formed any opinion as to his identity? I have not the slightest doubt that he is the man whom I knew in Queanbeyan, and to whom I referred in my evidence yesterday. There are so many peculiarities

- H. M. Davis.  
13 Dec., 1899.
- peculiarities about him that there can be no mistake. The colour and shape of his eyes, the twitching of his eyebrows, the peculiar way in which he occasionally taps his foot upon the ground, his height, facial expression, and general appearance, convince me that he is the man whom I knew.
330. Have you any doubt about it? Not the slightest. In the course of conversation he mentioned an incident concerning the upsetting of some meat at Roberts' Hotel, Goulburn, many years ago. I may explain that a number of us were staying at the hotel, and we were badly waited upon. There were so many of us that there was a difficulty in attending to our wants at meal-times. On one occasion when a man named Hyde, who lived about 3 miles from Ginnindera, was present, my brother Syd. jumped up and said, "Come on, Hyde; I'll bet you a sovereign I get my meat downstairs before you." He took hold of the remains of a leg of mutton, and Hyde seized another dish. They started for the door, and Hyde having the advantage, my brother upset his dish, and threw its contents down the stairs over Hyde's head, remarking, "I got mine down first." Creswell mentioned this incident to me to-day.
331. *Mr. Wilks.*] Did you notice any peculiarity about Creswell's ears when you knew him at Tumut? No doubt I observed it, but it did not fix itself in my memory.
332. *Mr. E. M. Clark.*] Was his beard, when you first knew him, as it is now? It was shorter.
333. *Chairman.*] That would account for your recognising the photograph in the book so clearly? Yes.
334. *Mr. E. M. Clark.*] Creswell has spoken a good deal about criminals and blood;—have you any reason for thinking he has been identified with anything appertaining to crime? No.
335. When was it that he arrived in Queanbeyan? I was there in 1856, and it must have been 1859 before I saw him.
336. Then, if there had been any rumour there that he had been mixed up in anything questionable, you would have heard it? Yes.

Luke Cullen, employed at the Newington Asylum, recalled and further examined:—

- L. Cullen.  
13 Dec., 1899.
337. *Chairman.*] Have you seen Creswell at the Parramatta Lunatic Asylum this morning? Yes.
338. Do you consider that he is the man to whom you referred in your evidence yesterday? I believe he is the same man. I have no doubt about it, although he is very much altered. He is very much thinner.
339. Have you any doubt in regard to his identification? Not the slightest.
340. Is he the man whom you stated you heard speaking French to a French watchmaker in Tumut? Yes.
341. And the man whom you arrested as being of unsound mind? Yes.
342. *Mr. E. M. Clark.*] When you were connected with the police was there any suspicion surrounding him in regard to the commission of a crime? No.
343. *Mr. Meagher.*] Have you any doubt as to him being the man to whom you referred yesterday? No; there is something in the eyes, face, and general appearance which is so striking as to leave no doubt.
344. *Mr. Wilks.*] Did you notice this morning that he disliked being questioned about Orton? Yes.
345. You stated in your evidence yesterday that he and Orton were associated? So they were.
346. Did there seem to be any strong friendship between them? None that I know of. They did not seem to be friendly, and I do not think they ever were.
347. *Mr. E. M. Clark.*] Where did Creswell remain after Orton went Home? In Tumut. As soon as he went Home the conversation I had with Orton, to which I referred, came to my mind.
348. It was about the time that Orton went Home that you arrested Creswell on account of his being of unsound mind? Yes; I would not be positive that he had gone Home or that he went Home immediately afterwards.
349. Did he show any eccentricities before Orton went away? Not until the time I arrested him.

William Algie, warder in charge of the weatherboard division, Parramatta Lunatic Asylum, sworn and examined:—

- W. Algie.  
13 Dec., 1899.
350. *Mr. Wilks.*] I suppose you have been present on many occasions when Creswell has been examined? Yes. I was present when Dr. Manning, and Dr. MacCormick, and Dr. Fiaschi examined him.
351. Were you present when Drs. Devlin and Pickburn examined him? Yes.
352. Have you been present when Mr. Priestman has visited him on different occasions? Yes.
353. Have you noticed that he was rather communicative this morning? Very much more than I ever knew him before.
354. Do you consider that he was rather more lucid this morning than usual? Yes. He seemed to give vent more freely than usual.
355. Did you observe his readiness in recognising Mr. Davis, and hear the conversation he kept up with him? Yes; he seemed to recognise him, and then he seemed to desire to shut off the conversation.
356. Did you notice, when inquiries were made of him regarding Orton, that he shut off the conversation as if there were something strange about the career of Orton about which he did not wish to be reminded? Yes. There is something in that. When you touch him on that point he does not seem to care to answer questions.
357. Have you ever heard him remark, on former occasions, anything about criminal guilt and blood? That is his insanity. He has always done that. He seems to have a delusion concerning cutting off people's heads or drinking their blood. Sometimes, if you put your hand on him, he will turn round suddenly and say, "You are a dead man, I will have your blood." Of course, that is his insanity.
358. Have you established any theory in regard to the remarks he makes of that character? No.
359. Is it your experience of insane patients that, when speaking, they usually dwell on some particular portion of their career? They vary a good deal. They seldom stick to one thing.
360. But Creswell does stick to one thing? Yes. Sometimes he appears to regard anything said to him as an offence; for instance, sometimes, if you say to him, "Good-day, Creswell," he will turn round and say, "That is not my name; it is William Creswell." He will follow you about, stamp his foot, and tell you he will have your blood.
361. *Chairman.*] What is his general demeanour? Very quiet. He has been more talkative this morning than I have ever known him to be.
362. Is he by any means what may be termed a violent patient? No. I have never known him lift his hand to any of the inmates.

363. Does his demeanour alter at all after a visit or an examination? Formerly it did, but not lately. Two or three years ago, after Mr. Priestman had visited him, he used to be very excited for two or three days, but lately he has seemed to calm down. W. Algie.  
13 Dec., 1899.
364. *Mr. Wilks.*] He kept on referring to crime to-day? Yes; and he always considers that what he says is correct—that whatever he says is law.
365. I suppose there is nothing in his remarks which would lead one to believe that he had ever been engaged in any crime? No; it is his imagination.
366. *Mr. Meagher.*] You say you were present on the occasions when the medical experts examined Creswell? Yes.
367. How long did Drs. McCormick and Fiaschi take over their examination? I did not take particular notice, but I should say it must have been nearly two hours.
368. How long did Drs. Pickburn and Devlin take over their examination? About the same time, I think.
369. *Mr. Wilks.*] Which would you consider the most exhaustive examination? Both of them were pretty exact. I do not think there was much difference. All the doctors paid great attention to him. He was stripped, and they appeared to examine every part of his body.
370. Judging by his actions and demeanour, do you regard him as a man of superior training? Yes; I think he is a little superior to the general run of patients we have.
371. Have you ever heard him make use of any French phrases? No. I may mention that Dr. MacCormick had a French cook who came to see if he could speak French, or understand it. The cook put some questions to him. The cook stated afterwards that he asked him what he did not understand—that he asked him if he wanted a bit of tobacco, and that he seemed not to understand what he was saying. Subsequently, he asked him in English if he would have a piece of tobacco, and he replied, "Yes; have you got any?"
372. *Mr. Meagher.*] Is it a fact that some of the patients would beg, borrow, or steal tobacco from one another? Yes, if they had the chance.
373. Is it a fact that although Creswell is fond of tobacco he would scorn to borrow or steal it? Yes; I have never known him borrow tobacco. If he wants any he will ask me for it, but he will not ask any patient for it, nor will he steal it.
374. *Mr. E. M. Clark.*] Does he mix much with the other inmates? No, he keeps to himself, and he amuses himself by sewing handbags.

TUESDAY, 19. DECEMBER, 1899.

PRESENT:—

MR. ANDERSON, | MR. E. M. CLARK,  
J. C. L. FITZPATRICK, ESQ., IN THE CHAIR.

William Ernest Forbes sworn and examined:—

375. *Chairman.*] What is your occupation? At present I am connected with the Riverstone Meat Preserving Company. Formerly I was station manager for the Commercial Banking Company of Sydney, and also for the Bank of Australasia, Melbourne. W. E. Forbes.  
19 Dec., 1899.
376. During your career as station manager, were you located in several places on the Southern Line? Yes; in the vicinity of Queanbeyan, Tumut, Albury, and Wagga Wagga.
377. How long is that ago? Thirty-four or thirty-five years. Prior to that I was with my father, who was one of the largest agriculturists and graziers in Australia, at Gundaroo.
378. Did you come in contact with the man who is known by several names, but particularly by the name of Smith, and afterwards by the name of William Creswell? Yes.
379. Were you fairly intimate with him? Yes.
380. Have you seen him recently? Yes.
381. When? On Wednesday last I saw him in the billiard-room at the Asylum, Parramatta. Prior to that I had not seen him for thirty-four years.
382. Did you experience any difficulty in recognising him? Not the slightest.
383. I suppose he has altered very considerably? Yes; he stoops very much, and of course he is much grayer, but when I first knew him he did not wear a beard. The twitching of his eye cannot be mistaken.
384. Were there any other characteristics about him which you could recognise him? Yes, the scar on the hand. It was on the 26th January, 1860, that I first met him in Araluen.
385. What type of man was he then? He was very active, very erect, and rather eccentric. He was then in the employ of Mr. Edward Smith, butcher, of Araluen.
386. Under what name did you know him then? As George Frederick Smith.
387. Were you brought into frequent contact with him? Yes, in 1861, 1862, and 1863 I played cricket with him for three seasons. He belonged to the Gininderra Cricket Club. Mr. Harold Davis, who was also at the Lunatic Asylum on Wednesday last, was one of his most intimate friends and also a club mate.
388. Did you have frequent conversations with him? Yes, but he was very eccentric. When his own team were batting he would be somewhere alone. He would seldom associate with anyone. The chances are that he would be lying on his back in the field, and throwing up a cricket ball and catching it. He was a very fair cricketer and a medium paced underhand bowler. Whilst playing cricket with him I frequently saw a tattoo on his arm.
389. On which arm? On the back of the wrist of the left arm. It consisted of a heart, anchor, and a cross, with the initials R.C.T. beneath it.
390. What space did the mark occupy? A space of about 2 inches—probably more.
391. Did you ever have any conversation with him with reference to it? I often asked him what it represented, and he used to put me off by saying it was a freak which had caused him to have it put on. The heart was in red ink; the rest was in blue ink.
392. I understand that at the time you were very much struck with the appearance of it? Yes. It was the first tattoo mark I had ever seen, and I thought it was very peculiar to see a picture on a man's arm. I was only a youth at the time—between 14 and 15 years of age.

- W. E. Forbes. 393. Did you ever attempt to copy it? Yes; I gave a copy of it to Mr. Joseph Eckford when he was endeavouring to prove him to be Arthur Orton. This was in 1873 or 1874.
- 19 Dec., 1899. 394. Have you a copy of it now? Yes. (*Produced.*)
395. Is this the original copy? No; I gave the original copy to Mr. Eckford, but this is a copy from the original.
396. When did you first know this man by the name of Creswell? He took it on the 6th of April, 1863—the day on which he married Widow Clark.
397. Were you acquainted with Mrs. Clark? Yes, years before her husband died. They were personal friends of my parents.
398. What transpired after that? Sometime after they were married they gave up the hotel; at the time of her marriage to Creswell she kept the hotel known as the "Farmers' Home," on Jerrabeggarie, Gundaroo, and went to Queanbeyan, where they kept an hotel. I did not see him from the time they left Gundaroo in 1863 until I met him again in Cowra in 1865. At that time he was staying at an hotel in Cowra, the name of which I cannot remember.
399. Did you have any conversation with him there? I may mention that Robert Livingstone and myself were in charge of some cattle. We had a cook, whom we sent on to camp at a certain creek on the south side of Cowra, and to get the fire ready for us. It was raining at the time, and when he got there the horses were tied to the waggonette, and the cook was lying underneath drunk. Some of the men sobered him by putting him in the creek. Livingstone discharged him the next morning, and we went back to Cowra to see if we could get another cook. We made inquiries of the landlord of the hotel, and Creswell at the time was walking up and down the verandah. When we came along the verandah he asked if we were looking for a cook, and said that if we would engage him he would do his best, although he was not a good cook. He added that he wanted to go to Wagga. We engaged him. He was then going by the name of Roger Leslie, and had separated from his wife. He went to Wagga Wagga with us. Whilst we were travelling from Cowra to Wagga Wagga he kept a diary, and on the fly-leaf of it was R. C. Tichborne. In this diary he used to write French and to translate it into English. He said he wanted to go to Wagga Wagga to see an old chum named Thomas Castro. After we delivered the cattle we stayed in Wagga Wagga for a few days, and frequently saw him and Castro knocking about together.
400. Did Castro go by any other name? Yes, by the name of Arthur Orton. Orton was then shopman to Mr. J. Higgins, butcher.
401. What happened after that? In 1865, whilst we were knocking about there, Orton said that Leslie was of England's best blood—in fact he said he was a baronet, and that his real name was Tichborne. Of course I never knew him as Tichborne; I only knew him as George Frederick Smith, William Creswell, and Roger Leslie. He had the tattoo marks on his arm, and I challenge anyone in the world to refute what I say.
402. Did you see anything of him after that? I wanted him to go back with us for more cattle. He said he did not care to go, and that he intended to stop with his old chum. He also said that he did not want money as he could get it at any time. I went away, and I did not come back to Wagga Wagga until thirteen months afterwards. Castro had then left to claim the Tichborne estates. I made inquiries as to what had become of Leslie. Some said that he had gone to Queensland, but I could not find out for certain that he had done so. In the meantime a headless corpse had been found in a quarry in Wagga. It was unearthed by a retriever dog, and from the description of the clothes I came to the conclusion that it was Creswell, or as he was then known, Roger Leslie. I was under that impression until I saw the photograph of Creswell while he was in the Lunatic Asylum at Parramatta.
403. I undersand that you never saw him from the time you left him at Wagga Wagga, in September, 1865, until you met him the other day? That is so.
404. *Mr. Anderson.*] When you met him the other day, did you observe the marks you have described? I could not find the tattoo marks, but I found the other marks.
405. *Chairman.*] Did you ever look at his arm? Yes, and I saw a scar upon it.
406. Did that scar occupy the place once occupied by the tattoo marks? Yes.
407. *Mr. Anderson.*] Is it your impression that the tattoo marks have been removed? Yes.
408. *Chairman.*] At the time you knew him had he any jewellery? Yes. He wore a gold ring with the initials "A.O." upon it. I may mention that he also had a blue tattoo mark on the back of the middle finger of the left hand in the shape of a diamond.
409. Have you any doubt as to the identity of the man whom you saw the other day with the man whom you knew as Creswell, Leslie, and Smith? Not the slightest.
410. Did he ever tell you anything as to his antecedents or of his past career? No, he was very reticent. He made very few personal friends. When I asked him the other day whether he remembered me, he said "No." He did not remember me, but he remembered the name of Forbes. Of course, I was a young man then and wore a beard. He remembered the old cricketers, including Joe Styles, who was the captain of my club for fifteen years. He also remembered Mr. Davis and the Hon. Geo. Campbell.
411. *Mr. E. M. Clark.*] Knowing that Castro, or Orton, had gone to claim the Tichborne estates, did you follow the case up at all? I was going to upset the whole thing—at least, I wished to have a say in it. I had, however, only just got married at the time, and my wife wished me to say nothing about it as I would have had to go to England as a witness, and she did not care to cross the sea.
412. Then you really gave no publicity to what was then your knowledge? No, not until I met Joseph Eckford in 1873 or 1874. I was conversing with someone in the old Victoria Theatre, when someone remarked to me, "You are the very man whom Eckford would like to see about this lunatic; you seem to know all about him." I replied, "That if he was the man who married Widow Clark, I knew him."
413. *Mr. E. M. Clark.*] What did Mr. Eckford seek to do in connection with the case? He was endeavouring to prove that Creswell was Arthur Orton. I had mentioned the matter of the gold ring with "A.O." upon it.
414. *Mr. Anderson.*] Did you notice the tattoo mark on Creswell's finger when you went to see him the other day? No.
415. Did you notice any indications of the marks having been erased? I was not close enough to him, and I did not examine him. Of course marks of this kind can be erased. There are two men in the Riverstone Meat Co.'s works who have had tattoo marks removed. They were Indian ink marks, and they were taken off by means of new milk, and you cannot distinguish where they were. They say the removal of the marks was more severe than the putting of them on.



416. *Mr. E. M. Clark.*] This morning I saw the copy of an original statement made by an intimate friend of Tichborne at the trial in England, and he described the tattoo mark as an anchor inside a cross, and the heart in the centre of it? That is not similar to what was on Creswell. W. E. Forbes.  
19 Dec., 1899.
417. Were the letters underneath the tattoo mark on Creswell printed letters? Yes, in blue ink; the heart was in red ink.
418. *Chairman.*] Had you a conversation with Mr. Eckford on the occasion to which you refer? Yes.
419. Did he give you any information as to his object in seeking to obtain possession of Creswell? No; he said he wanted to take Creswell Home in order to show that the other man was not Arthur Orton.
420. Did he convey to you the impression that he believed Creswell was Arthur Orton? Yes; he seemed to be overjoyed when I mentioned the gold ring with the initials "A.O." upon it.
421. Was there any great difference in the appearance of the two men, Orton and Creswell? Yes.
422. Was the difference so great that it would be impossible to mistake one for the other? You could not make any mistake. One was a fat burly man—as rough as any butcher you could find. The other was exactly the reverse; he was very reserved and very natty, and there was a military cut about him. His appearance led one to believe that he was a thoroughly trained soldier.

WEDNESDAY, 20 DECEMBER, 1899.

Present:—

Mr. MEAGHER,		Mr. E. M. CLARK,
Mr. WILKS,		Mr. O'CONNOR,
J. C. L. FITZPATRICK ESQ., IN THE CHAIR.		

Alexander MacCormick, Medical Practitioner, sworn and examined.

423. *Chairman.*] I understand that some time ago you made an examination of William Creswell at the Parramatta Lunatic Asylum? Yes; in conjunction with Dr. Fiaschi, on 26th November, 1897. A.  
MacCormick.  
20 Dec., 1899.
424. I believe the examination was made at the instigation of the Court? At the instigation of Mr. Salisbury, connected with the Lunacy Department.
425. Can you say what time was taken up in carrying out the examination? I do not remember exactly.
426. *Mr. E. M. Clark.*] Did you make a careful examination? Yes. Of course it is two years since I made the examination, and I have never seen the man since. I cannot carry his image and every part of his body in my mind, but anything which was written down at the time I will swear to.
427. *Mr. Wilks.*] Drs. Pickburn and Devlin assert that there is a mark on Creswell's temporal artery, near the auditory canal, which you were not able to observe? There was no mark there.
428. They gave us a sort of diagram of it, and said they found it near the auditory canal, which is a branch of the temporal artery? The question which was asked Dr. Fiaschi and myself was "Is there a cut indicating that arteriotomy has been performed." If that had been performed you would expect to see a scar on the anterior branch of the temporal artery.
429. *Chairman.*] The question put to Dr. Pickburn was, "Is there a lancet cut for bleeding on the temporal artery," and his answer was, "There are two faint little scars directly over the temporal artery, just above the left auditory canal"? That is a little above the ear. There are no marks there indicating that the operation of arteriotomy had been performed. That I will swear to.
430. Are you also confident that there are no marks there which might arrest attention? I cannot remember now what other little marks were there; but there were no marks which I could see indicating that an operation had been performed for bleeding.
431. *Mr. Wilks.*] There is a difference between Creswell's height and that of Tichborne of 2 inches. Is it possible for such a "shortage" as that to have taken place in Creswell. When Dr. Pickburn measured him he found he had lost  $\frac{1}{4}$  inch in two years? When you measure a man roughly, against a wall, you can easily incline him one way or the other, so as to make a difference of  $\frac{1}{4}$  inch.
432. *Chairman.*] He was measured with a proper measure. Did you measure him by means of a measuring machine? I forget what instrument I used.
433. *Mr. Wilks.*] It is asserted that the mark on Tichborne's eyelid was caused by a fish-hook. We have it in evidence that you failed to find any trace of it on Creswell? There was no mark on the eyelids.
434. The other doctors say that the mark is visible to the naked eye? It was not visible to the eyes of Dr. Fiaschi and myself.
435. Do you think there was any pus mark there? There were no marks suggestive of an injury by a fish-hook that we could find.
436. The other doctors state that there is a mark there; did you fail to discern it? Yes.
437. Did you notice the difference between Creswell's ears—one of them being without a lobe? I do not know what is meant by the lobe of the ear. We do not talk about the lobe of the ear, but I know the part you mean. It is spoken of as the lobule of the ear. On one side the lobule was well marked—that is to say, it was distinct. On the other side it was attached to the face more.
438. Did you notice that there was a  $\frac{1}{2}$  in. difference in the measurement of the two eyes from top to bottom? We did not measure; we were only asked about the lobule.
439. The other doctors speak about the right ear having a normal lobe? We never use the word "lobe" in the description of the ear.
440. With regard to the mark on the wrist—Supposing there had been some tattoo-mark there, could it have been obliterated by medical means? Not that I know of, except the destroying of the skin or cutting it away. You would require to destroy the dermis, and that would leave a scar.
441. And you observed nothing of that character? We observed no scars which would lead us to suppose that a tattoo-mark had been obliterated.
442. *Chairman.*] Did you observe no scar there at all? I will not say that. To the best of my ability, there were little punctated white scars, as if there had been small pustules there; but there are no scars there to indicate that tattoo-marks have been obliterated.
443. Can you remember whether there is a scar occupying a space of a 5s. piece? There is a broad scar on the back of the left wrist. That was caused by the cut of a butcher's crop—at least, that is the assertion. It did not look like a tattoo-mark that had been obliterated.

A.  
MacCormick,  
20 Dec., 1899.

444. *Mr. Wilks.*] It is said that the tattoo-marks could have been removed by an elliptical incision? Then there would have been a linear scar left which could easily have been detected from an ordinary blotch. There is no linear scar on the inside of the left wrist.
445. *Mr. E. M. Clark.*] We were told yesterday that tattoo-marks can be removed by the use of new milk? I have heard of that, but it is a popular fallacy.
446. *Chairman.*] Do you regard it as a fallacy? Yes; you cannot destroy tattoo-marks unless you destroy the skin in which the pigment is placed.
447. If you had two persons brought before you who could absolutely prove that they had had tattoo-marks removed by that means, what would you say? I should say that the tattoo-marks were only superficial, and that they were not in the true skin at all. They would not be tattoo-marks similar to those which you see on sailors. You would require to skin a man before you got rid of such marks.
448. *Mr. Wilks.*] Did you not notice any peculiarities in the man's bearing which would lead you to believe that he had had an excellent early training? No.
449. Was there anything in his habit which struck you that he had followed an occupation different from that which he is supposed to have followed? No.
450. *Mr. E. M. Clark.*] Did you come to the conclusion that he was a genuine lunatic? Yes. I may mention that he was not very communicative, and I did not examine him for the purpose of discovering his mental condition.
451. *Chairman.*] How did you arrive at the conclusion that he was a lunatic? Because he was confined in a lunatic asylum. Of course we had certain questions to answer, and we answered them as correctly as we possibly could. We had no object in answering them other than correctly.
452. *Mr. Meagher.*] I take it that when you were asked by the judge to look for lancet cuts for bleeding you naturally looked towards the anterior branch of the temporal artery? Yes; that is where you would expect to find them.
453. You would not pay the same attention where the hair is near the ear? Nobody would dream of bleeding where the hair is.
454. If any other medical gentleman has stated that lancet cuts have sometimes been made there would you feel inclined to doubt him? I should like to know for what purpose they were intended to be made.
455. I suppose for the purpose for which lancing the temporal artery is usually carried out? I would not expect to find that in the region you have stated because there is an important nerve there which might be injured, and which might paralyse that side of the face.
456. At any rate you would confine your attention there? I would confine my attention to the place where the operation of arteriotomy is performed.
457. Would you like to swear that the marks which the other doctors have indicated are not there? There are no marks there which indicate that the operation of arteriotomy has been performed.
458. On any portion of the temple? Not on the temple.
459. Are you prepared to swear that there are no marks where the other doctors say they have located them. The doctors say "there are two faint linear scars directly over the temporal artery, just above the left auditory canal"? I will swear that there are no marks on the temple indicating that the operation of arteriotomy has been performed. How can I remember all the marks and scars on his body after two years?
460. You were asked certain questions, and you looked upon certain portions of Creswell's anatomy for certain marks, and you swear they are not there? That is so. Could not you bring the man here to simplify matters?
461. *Chairman.*] You were appointed for the purpose of making this investigation with the object of satisfying the court as to what was practically the identity of the man? And I had certain questions to answer, and I answered them correctly as far as my ability went.
462. *Mr. Meagher.*] I have no doubt you were asked to look for lancet cuts in the usual place in which the medical profession would expect to find them. Although it may be quite correct that there is no indication of lancet cuts of bleeding in the usual place on the temporal artery, are you prepared to say that Dr. Pickburn is wrong in stating that there are two faint linear scars? Above the ear?
463. Yes? No, certainly not.
464. *Mr. O'Connor.*] You would not expect two scars to be above the ear unless arteriotomy had been performed? No.
465. *Mr. Meagher.*] Did you see the asylum book when you examined Creswell? No.
466. Do you know whether there is any discrepancy between the examination of Dr. Fiaschi and yourself and that of the medical superintendent as to scars? No.
467. You and Dr. Fiaschi stated, "We find no marks of an issue on the shoulder or upper arm." If the asylum case books says, "Slight irregular scar one third of an inch in diameter on the left side of neck, also one vaccination mark near another ordinary small scar," what would you say? You talk of a scar due to an issue. An issue is generally not less than the size of a sixpence.
468. Is it correct to say that there is an ordinary small scar visible to the naked eye near the vaccination mark? There is no scar due to an issue on his shoulder or upper arm.
469. *Chairman.*] In making an answer of that kind you are adhering to the tenor of the question which you were asked? Certainly.
470. *Mr. Meagher.*] Do you think that after forty years an ordinary small scar near the vaccination mark can be positively stated to be the result of an issue? I should say that it was not the result of an issue. If there had been an issue there I could swear to the scar after forty years, or any length of time.
471. You reported that there was no scar of lancet cuts for bleeding on the arm? Yes.
472. If the case book at the asylum says there is one small scar on the inner side of the left fore-arm, what then? We say that there is one small scar on the inner side of the left fore-arm, but it is not in the line of any vein, so that it has not been bled.
473. Is it possible that it may have been caused by an unskilful attempt at bleeding? I could not give any information on that point.
474. I suppose there are cases of that kind? I never heard of a case of bleeding on the inside of the arm.
475. *Mr. O'Connor.*] Would you be prepared to say that no medical man would do it? Certainly he would not.

476. *Mr. Meagher.*] With regard to the marks on the arm, which are supposed to be the erasion of tattoo-marks—if the case book at the asylum described the marks as a large puckered elliptical scar such as might well be caused by burning, would it fall in with your view? There is a broad scar on the back of the left hand and wrist. A.  
MacCormick.  
20 Dec., 1899.

477. Do you think it is possible that that was caused by cautery? It might have been caused by anything. It was not a wound which healed up well. What caused it no one could say.

478. Is it possible that it might have been a tattoo-mark erased by cautery? It is possible. I do not know what was there before. It might have been caused by cautery.

479. *Chairman.*] Were you not informed that it was caused by a hook? No. Creswell told us that it was caused by a butcher's crop, and that he was treated at St. Mary's hospital for it.

480. *Mr. Meagher.*] Mr. Wilks has asked you a question with regard to the injury to the eyelid by means of fish-hook, and he has told you that Drs. Pickburn and Devlin discerned a scar which might have been the result of an injury caused by a fish-hook? You say that you found no mark at all on the eyelid. No; we found no mark on the eyelid suggestive of an injury by a fish-hook.

481. Did you find any mark on the eyelid suggestive of an injury by anything? How do you expect me to remember all about his eyelids after two years. We examined him for an injury by a fish-hook, and we could not find any marks suggestive of it.

482. *Chairman.*] You cannot say that there were no marks there at all? It is not fair to bother me with minute details of that kind after two years.

483. You have no recollection of any mark being there? No.

484. *Mr. Wilks.*] Did you notice any raising or twitching of Creswell's eyebrows? Yes; he had a peculiar way of raising his eyebrows.

485. Is that a common thing? You meet it in some people, but it is not a common thing.

486. One of the doctors has stated that he formed the impression that Creswell was a man of good early training, and of the better class in life. Do you think that? No.

487. Is the peculiarity about the ears unusual? Unless you were examining him, you would not notice it.

488. Is it not a most unusual feature in anybody? Yes.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## ESTATE OF THE LATE S. M. SWIFT, OF PETERSHAM.

(PETITION FROM JOHN McDONALD, OF MUNGIE BUNDIE, NEAR MOREE, PRAYING FOR LEAVE TO APPEAR BEFORE SELECT COMMITTEE, IN PERSON, OR BY ATTORNEY OR COUNSEL, AND TO EXAMINE AND CROSS-EXAMINE WITNESSES.)

*Received by the Legislative Assembly, 5 September, 1899.*

To the Honorable the Speaker and Members of the Legislative Assembly of New South Wales, in  
Parliament assembled.

The Petition of John McDonald, of Mungie Bundie, near Moree, in the Colony of New South  
Wales,—

HUMBLY SHOWETH :—

1. That on the 1st day of August, in the year of our Lord one thousand eight hundred and ninety-nine, your Honorable House appointed a Select Committee to inquire into and report upon the alleged evasion of probate duty by the executors in the estate of the late S. M. Swift, Esquire, squatter, Petersham.

2. That your Petitioner humbly prays that he may be represented by counsel or attorney, or in person, before the Select Committee appointed to inquire into and report upon the matter, with the right to call witnesses and adduce evidence, and to examine and cross-examine such witnesses as may give evidence before the Select Committee.

And your Petitioner, as in duty bound, will ever pray.

JOHN McDONALD.



1899.  
(THIRD SESSION.)

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LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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REPORT FROM THE SELECT COMMITTEE

ON

ESTATE OF THE LATE S. M. SWIFT, OF  
PETERSHAM;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE

AND

MINUTES OF EVIDENCE.

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*Printed under No. 15 Report from Printing Committee, 21 December, 1899.*

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1899.

(THIRD SESSION.)

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EXTRACTS FROM THE VOTES AND PROCEEDINGS OF THE  
LEGISLATIVE ASSEMBLY.

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VOTES No. 7. TUESDAY, 1 AUGUST, 1899.

- G. ESTATE OF THE LATE S. M. SWIFT, OF PETERSHAM:—Mr. Hughes moved, pursuant to Notice,—
- (1.) That a Select Committee be appointed to inquire into and report upon the alleged evasion of probate duty by the executors in the Estate of the late S. M. Swift, Esq, squatter, Petersham.
- (2.) That such Committee consist of Mr. Carruthers, Mr. Dick, Mr. Hurley, Mr. McLean, Mr. Thomas, Mr. McFarlane, Mr. O'Sullivan, and the Mover.
- (3.) That the Progress Report from the Select Committee of Second Session of 1898 be referred to such Committee.
- Question put and passed.
- 

VOTES No. 22. TUESDAY, 5 SEPTEMBER, 1899.

1. \* \* \* \* \*
- ESTATE OF THE LATE S. M. SWIFT, OF PETERSHAM:—Mr. Garland presented a Petition from John McDonald, of Mungie Bundie, near Moree, praying that he may be represented by counsel, or attorney, or in person, before the Select Committee appointed to inquire into and report upon the alleged invasion of probate duty by the executors in the Estate of the late S. M. Swift, of Petersham.
- Petition received.
- Ordered to be referred to the Select Committee.
- 

VOTES No. 24. THURSDAY, 7 SEPTEMBER, 1899.

1. \* \* \* \* \*
- ESTATE OF THE LATE S. M. SWIFT, OF PETERSHAM:—Mr. Hughes (*by consent*) moved, without Notice, That the Select Committee on "Estate of the late S. M. Swift, of Petersham," have leave to sit during the adjournment of the House To-morrow.
- Question put and passed.
- 

VOTES No 56. WEDNESDAY, 20 DECEMBER, 1899.

31. ESTATE OF THE LATE S. M. SWIFT, OF PETERSHAM:—Mr. Hughes, as Chairman, brought up the Report from, and laid upon the Table the Minutes of Proceedings of, and Evidence taken before the Select Committee for whose consideration and report this subject was referred on 1st August, 1899.
- Referred by Sessional Order to the Printing Committee.
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1899.  
(THIRD SESSION.)

ESTATE OF THE LATE S. M. SWIFT, OF PETERSHAM.

REPORT.

THE SELECT COMMITTEE of the Legislative Assembly, appointed on 1st August, 1899,—“to inquire into and report upon the alleged evasion of probate duty by the executors in the Estate of the late S. M. Swift, Esq., squatter, Petersham,” and to whom was referred on the same date “the Progress Report from the Select Committee of Second Session of 1898,” and to whom was also referred, on 5th September, 1899, a Petition from John McDonald, “praying to be represented by counsel, or attorney, or in person, before the Select Committee,”—have agreed to the following Report:—

Your Committee, having examined the witnesses named in the list\* See list, p. 7. (whose evidence will be found appended hereto), find as follows:—

1. That the inquiry has been of an extremely complicated and lengthy character, embracing, as it does, the transactions of several large station properties, a statement of the accounts of which, prepared by Mr. George Sandell, chartered accountant, appears in the evidence.
2. That Mrs. Elizabeth Swift, widow of the late Samuel Moffit Swift, in evidence before your Committee (or through Mr. Sandell, who acted on her behalf) alleged:—
  - (a) That the estate was undervalued in the statement filed for probate.
  - (b) That there were, in addition, concealed assets.
  - (c) That the alleged partnerships between Swift and McDonald and Swift and Hann did not exist, and that, consequently, probate was paid only on a portion instead of the whole estate.
  - (d) That the value of selections on the estate in process of alienation by conditional purchase were omitted from the schedule filed for probate, although such selections were taken up in the interest of, and belonged to the estate.
3. That with regard to the alleged undervaluation of the estate, Mr. Hann, in a letter to Mr. Webb, manager of Browley, and also to Mrs. Swift, stated that he had disposed of Browley for £15,000. It is admitted by Mr. Hann in evidence that the station was sold three days before the application for probate, and that although commission was paid on £14,506 16s. 9d., the valuation for probate was stated at £13,317 10s. 3d. It is admitted by the same witness that Snubba, although valued for probate at £2,500, was actually sold by Pitt, Son, and Badgery for £5,000, and that no amended statement was filed.

4. That with regard to the concealed assets it is alleged by Mr. Sandell (and not denied by Mr. Hann), that the following should have been included in the accounts lodged on application for probate:—

- (a) Bill for £1,200 for sheep sold to Sutton & Co. (This is admitted by Mr. John McDonald.)
- (b) Sheep sold to Cook prior to Swift's death.
- (c) Wool in transit at time of Swift's death, £1,517 8s. 7d.

Mr. Hann admits Question 1299: That he did not inspect the books prior to application for probate, as there was not time.

5. With regard to the alleged partnerships your Committee find:

- (a) That no deed of partnership ever existed, either between Swift and McDonald or Swift and Hann.
- (b) That the evidence as to the alleged partnerships is unsatisfactory.
- (c) That it appears both in the case of Swift and Hann, and Swift and McDonald, that certain stock and other transactions were completed by operations on a joint account.

6. That with reference to the selections on the estate in process of alienation by conditional purchase, it is evident to your Committee that, almost without exception, the land was taken up in the interests of the various stations. The ledger accounts produced, and the evidence of Mr. W. J. Gore, point conclusively in that direction. Attention is drawn to the following remarkable evidence given by Mr. Hann:—

1309. Do you recognise this as station letter-book No. 31? Yes.

1310. Is this a letter addressed by you to Mr. Swift in 1883? Yes.

1311. It is dated 4th May, 1883; you say, "We shall have to see what position we stand in to these men (the selectors) by-and-by, and by-and-by block them by dummyming around them";—how do you explain that? I have no explanation to give.

1317. Then, on the 6th June, 1883, you wrote:—"We must hold ourselves in readiness to secure any places, and I wish you would give me accurate descriptions of each spot to work upon. Send Frayne in next Wednesday, and I will take up 320 acres";—who was Frayne? I do not remember. I suppose he was an employee.

1318. Have you any explanation to offer for that? None whatever.

Your Committee consider that the estate has been undervalued; that assets have been concealed, and that the evidence discloses that there have been serious offences committed against the Crown Lands Acts; and in view of the above, recommend that action be taken by the Crown Law Officers.

W. M. HUGHES,

Chairman.

*No. 2 Committee Room,*

*Legislative Assembly,*

*20th December, 1899.*

PROCEEDINGS OF THE COMMITTEE.

THURSDAY, 10 AUGUST, 1899.

MEMBERS PRESENT.—

Mr. McLean, | Mr. O'Sullivan,  
Mr. Thomas.

Mr. O'Sullivan called to the Chair *pro. tem.*

Entry from Votes and Proceedings appointing the Committee, and referring the Progress Report of Second Session of 1898, read by the Clerk.

*Resolved (on motion by Mr. McLean),—*That Mr. Hughes be Chairman of this Committee.

[Adjourned till Tuesday next at 2:15 o'clock.]

TUESDAY, 15 AUGUST, 1899.

MEMBER PRESENT:—

Mr. Hughes.

In the absence of a Quorum, the meeting called for this day lapsed.

WEDNESDAY, 16 AUGUST, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.  
Mr. McFarlane, | Mr. McLean,  
Mr. Thomas.

George Sandell (*Accountant*) called in, sworn, and examined.

Witness withdrew.

*Ordered (on motion of Mr. McLean),—*That John McDonald, Mungie Bundie, Moree, and Charles Donaldson, Highland Plain, Moree, be summoned to give evidence next meeting.

[Adjourned till Tuesday next at 11 o'clock.]

TUESDAY, 22 AUGUST, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.  
Mr. McFarlane, | Mr. Thomas.

*Ordered (on motion of Mr. McFarlane),—*That Wm. John Gore, Wapweelah, *via* Eangonia, be summoned to give evidence on Tuesday next at 11 o'clock.

George Sandell recalled and further examined.

Witness withdrew.

[Adjourned till To-morrow at 2 o'clock.]

WEDNESDAY, 23 AUGUST, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.  
Mr. McFarlane, | Mr. Thomas.

The Chairman informed the Committee that he had consulted Mr. Speaker with reference to the non-attendance of Mr. John McDonald and Mr. Charles Donaldson, and that Mr. Speaker had stated that no further action could be taken until the witnesses expenses had been tendered.

*Resolved (on motion of Mr. McFarlane),—*That the Clerk of the Assembly be requested to telegraph to Messrs McDonald and Donaldson, pointing out that steps can be taken to enforce obedience to a summons; requesting their attendance on Tuesday next at 12 noon, and intimating that expenses will be allowed in accordance with law.

[Adjourned till Tuesday next, at 11 o'clock.]

TUESDAY, 29 AUGUST, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.  
Mr. McFarlane, | Mr. McLean,  
Mr. Thomas.

The Clerk informed the Committee that in accordance with the resolution adopted at the last meeting of the Committee the Clerk of the Legislative Assembly had telegraphed to Messrs. McDonald and Donaldson, who had replied that they would attend on payment of their expenses, and that arrangements had been made to tender same.

The Chairman read a telegram from Wm. John Gore, who had been summoned to attend to-day, intimating that he was without means to pay his fare, and asking that arrangements be made.

*Ordered (on motion of Mr. McFarlane),—*That John McDonald, Charles Donaldson, and Wm. John Gore be summoned to give evidence next meeting.

[Adjourned till Tuesday next, at 11 o'clock.]

TUESDAY,

TUESDAY, 5 SEPTEMBER, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.  
Mr. McFarlane, | Mr. McLean,  
Mr. Thomas.

William John Gore called in, sworn, and examined.  
Witness withdrew.

[Adjourned till To-morrow, at 11:30 o'clock.]

WEDNESDAY, 6 SEPTEMBER, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.  
Mr. McFarlane, | Mr. McLean,  
Mr. Thomas.

Entry from Votes and Proceedings, referring the Petition of John McDonald to the Committee, read by the Clerk.

E. P. Simpson, Esq. (*Messrs. Minter, Simpson, & Co., Solicitors*), appeared for Mr. John McDonald.  
William John Gore recalled, and further examined.

Witness withdrew.

John McDonald (*Grazier*), called in, sworn, and examined.

Witness withdrew.

Charles Donaldson called in, sworn, and examined.

The witnesses John McDonald and Charles Donaldson having refused to answer certain questions.  
Room cleared.

*Resolved (on motion of Mr. McFarlane)*,—That the Chairman consult Mr. Speaker as to the advisability of asking the House for power to enforce the provisions of the 7th section of the Parliamentary Evidence Act.

Chairman submitted claim from W. J. Gore for £14 9s. 3d. witnesses expenses.

Claim considered and passed.

[Adjourned till To-morrow, at 11:15 o'clock.]

THURSDAY, 7 SEPTEMBER, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.  
Mr. Dick, | Mr. McFarlane,  
Mr. O'Sullivan.

E. P. Simpson, Esq. (*Messrs. Minter, Simpson, & Co., Solicitors*), appeared for Mr. John McDonald.  
Charles Donaldson recalled and further examined.

Witness withdrew.

John McDonald recalled and further examined.

Room cleared.

*Resolved (on motion of Mr. McFarlane)*,—That the Chairman obtain leave of the House for the Committee to sit during the sitting of the House to-morrow.

Reassembling of the Committee to be arranged by the Chairman.

[Adjourned.]

FRIDAY, 8 SEPTEMBER, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.  
Mr. Dick, | Mr. McFarlane,  
Mr. Thomas.

Entry from Votes and Proceedings granting leave to the Committee to sit during the adjournment of the House *this Day*, read by the Clerk.

E. P. Simpson, Esq. (*Messrs. Minter, Simpson, & Co., Solicitors*), appeared for Mr. John McDonald.

John McDonald recalled and further examined.

Witness withdrew.

Charles Donaldson recalled and further examined.

Witness withdrew.

John McDonald recalled and further examined.

Witness withdrew.

The Chairman submitted the following claims.

Charles Donaldson, £8 13s.; John McDonald, £11 10s.; also claim from Inspector-General of Police for refund of £15 13s. 9d., in connection with expenses to certain witnesses on service of summons.

Claims considered and passed.

Reassembling of the Committee to be arranged by the Chairman.

[Adjourned.]

TUESDAY, 31 OCTOBER, 1899.

MEMBER PRESENT:—

Mr. Hughes.

In the absence of a Quorum, the meeting called for this day lapsed.

THURSDAY,

THURSDAY, 8 NOVEMBER, 1899.

MEMBERS PRESENT:—

None.

In the absence of a Quorum, the meeting called for this day lapsed.

TUESDAY, 14 NOVEMBER, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.

Mr. Hurley, | Mr. McFarlane,  
Mr. Thomas

Elizabeth Swift, called in, sworn, and examined.

Witness withdrew.

George Sandell, called in, sworn, and examined.

Witness withdrew.

Ordered,—That Phineas Hann be summoned to give evidence next meeting.

[Adjourned till Tuesday next, at 2 o'clock.]

TUESDAY, 21 NOVEMBER, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.

Mr. Hurley, | Mr. McLean,  
Mr. McFarlane.

Phineas Hann (*one of the Executors of the late S. M. Swift*) called in, sworn, and examined.

Witness withdrew.

[Adjourned till To-morrow, at 2 o'clock.]

WEDNESDAY, 22 NOVEMBER, 1899.

MEMBERS PRESENT:—

Mr. Hughes, | Mr. McFarlane.

In the absence of a Quorum, the meeting called for this day lapsed.

THURSDAY, 23 NOVEMBER, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.

Mr. McLean, | Mr. McFarlane,  
Mr. Thomas.

Phineas Hann, recalled, and further examined.

Clerk submitted claims for witnesses expenses: G. Sandell, £10 10s; P. Hann, £13 2s. 9d.

Claims considered and passed.

Reassembling of the Committee to be arranged by the Chairman.

[Adjourned.]

WEDNESDAY, 20 DECEMBER, 1899.

MEMBERS PRESENT:—

Mr. Hughes in the Chair.

Mr. McFarlane, | Mr. McLean.

Chairman submitted Draft Report.

Same read, amended, and agreed to.

Chairman to report to the House.

LIST OF WITNESSES.

	PAGE.
Donaldson, C. ....	44
Gore, W. J. ....	37
Hann, P. ....	62
McDonald, J. ....	43, 51
Sandell, G. ....	9
Swift, Mrs. E. ....	60



1899.

(THIRD SESSION).

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

MINUTES OF EVIDENCE

TAKEN BEFORE

THE SELECT COMMITTEE

ON THE

ESTATE OF THE LATE S. M. SWIFT, OF  
PETERSHAM.

WEDNESDAY, 16 AUGUST, 1899.

Present:—  
MR. McFARLANE, | MR. McLEAN,  
MR. THOMAS. |  
W. M. HUGHES, Esq., IN THE CHAIR.

George Sandell sworn and examined:—

1. *Chairman.*] Have you any additional evidence to give to the Committee? Yes. I now wish to tender the particulars of the exhibits as shown in the balance-sheet which I formerly presented to the Committee. They are as follows:—

G. Sandell.  
16 Aug., 1899.

PARTICULARS OF ASSETS AND LIABILITIES THAT EXISTED AT THE DATE OF TESTATOR'S DEATH; COMPILED FROM THE ESTATE DOCUMENTS BY G. SANDELL.

	£	s.	d.	£	s.	d.
7,200 2-tooth ewes						
8,828 4 and 6 tooth ewes						
6,000 3, 4, and 5 year old ewes						
6,000 2-tooth Booroona, cost 6s 6d.				1,950	0	0
5,000 4-year old Barcaldine, cost 7s. 6d.				2,100	0	0
				19,469	12	0

As to numbers and price, *vide* Book SI, pages 32 and 34; Statement in Mr. Hann's handwriting, *vide* Book II, page 275.

	£	s.	d.
J. W. Cox's bill, renewed by Hann and Croaker; documents 164, 165, and 306; <i>vide</i> Suit 5,060, page 63 ...	896	3	6
Australian M. P. Society, <i>vide</i> document 387, received by executors 23rd April and 10th September, 1884; Suit 5,060, pages 2 and 62	2,330	14	0
Sydney Lloyd's share, <i>vide</i> documents 275 and 381, received by executors 5th August, 1884; Suit 5,060, page 2	250	0	0
H. C. Tingcombe, a debtor, received by executors 14th December, 1884. (See Suit 5,060, page 63)	88	6	0
C. H. Croaker, <i>vide</i> documents 352 and 366, received by Executors 25th November, 1884. (See Suit 5,060, page —)	186	7	3

*Exhibit A, No 3.*

105 Mount Kembla £10 shares, fully paid-up, <i>vide</i> Book B, page 549. (Extract from testator's letter to Mr. Vickery, 30th November, 1883, "Received the scrip for the shares in the names of—10, Mrs. Roberts; 30, P. Hann; 42, S. M. Swift; 23, M. Swift." See documents 276 and 277. Testator's paid cheques £800 and £250. I have been unable to trace any repayments by Mr. P. Hann or Mrs. Roberts)	1,050	0	0
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*Exhibits A, No. 4.*

Two-third share of Tooma Falls Run	400	0	0
Two fifteenth shares in George's River Land Syndicate	500	0	0
Household furniture, <i>vide</i> Mr. E. M. Pitt's valuation, document 270	550	0	0
Hillcrest, Petersham	4,000	0	0
Mortgaged to London, Liverpool, and Globe Insurance Company for £2,400 for liability. (See Exhibit A 15, <i>vide</i> document 279, and offer of Mr. Grey of £5,000, document 280).			
23 acres of land, Cook's River. (See document 270; for value, see executor's Probate Statement 'A') ...	700	0	0

G. Sandell.	<i>Exhibit A, No. 5.</i>	£	s.	d.
16 Aug., 1899.	8 cattle and 2 horses, <i>vide</i> document 270. (For value, see executor's Probate Statement "A")	100	0	0
	Buggy and harness, <i>vide</i> document 270. For value, see executor's Probate Statement "A")	100	0	0

*Exhibits A, No. 6.*

Credit balance at Head Office, Bank of New South Wales, <i>vide</i> documents 388 to 392 and bank pass-book. (This was entered as a liability by executors. See Exhibit A No. 13)	399	4	5
Credit balance at Bourke Branch, Bank of New South Wales, in name of J. Thorburn. (This banking account was entered by executors in their account filed on application for probate as a liability for £49 9s. 9d.)	9	10	9
Credit balance at Blackall Branch, Bank of New South Wales, in the name of T. Miller, <i>vide</i> Book —, page 352	232	0	0
Credit balance at Wilcannia Branch, Commercial Banking Company of Sydney, in name of E. Luttrell, <i>vide</i> bank pass-book	100	19	7
Radford, overdrawn settlement at 18th February, 1884, <i>vide</i> document 319	11	11	4
	<u>£753</u>	<u>6</u>	<u>1</u>

*Exhibits A, No. 7.*

7,900 ewes, purchased by testator on 11th October, 1883, from Bates, agent for T. Brown & Co., vendors; promissory-note given by testator, due 14th July, 1884. (7,580 of these ewes were resold and delivered by agent Bates to James and Martin, less commission, <i>vide</i> document 353, in Exhibit B No. 18)	4,499	0	3
Horses and sundries left at Mungie Bundie by Halloran, <i>vide</i> Book B, page 694	92	0	0
Sloane, <i>vide</i> documents 360 and 272, Suit 5,060, pages 4 and 62, received by executors 22nd October, 1884	87	12	7
" " 360 and 272, " " " received by " " " "	55	5	9
" " 355 " " " received by executors 5th August, 1884	299	16	8
Broade " 377 " " " received by executors 30th April, 1885	188	15	0
Wilkinson, <i>vide</i> documents 319 and 303; Bank pass-book, received by executors 23th July, 1884	70	4	0
Leeds, received 7th July, 1885	118	14	8
Leeds, received 7th July, 1885	75	0	0
Two cows and two calves, <i>vide</i> document 349, Suit 5,060, page 62, received 23rd July, 1884	67	3	6
Horse, <i>vide</i> document 358, Suit 5,060, page 6, received 10th October, 1884	15	10	3
" " 362, " 5,060, " 63, " 4th November, 1884	3	4	0
Frauenfelder, <i>vide</i> document 155; Bank pass-book, received 2nd April, 1884	1	18	0
" " Bank pass-book, received 11th November, 1884	5	10	0
Brown Bros.; Suit 5,060, page 3, received	82	13	9
Eddy, document 370; Book " , page 61; received 25th March, 1885	35	0	0
Horses, " 378, Suit 5,060, pages 4 and 62; received 18th May, 1885	18	0	0
Drover's plant, suit 5,060, pages 4 and 62	83	17	6
Drover's plant, document 375, Suit 5,060, page 4; received 6th February, 1885	6	12	0
Whittenham, Suit 5,060, pages 4 and 62	14	17	0
McDonald, document 375, Suit 5,060, pages 4 and 62; received 6th February, 1885	8	18	6
Menzie and Martin, Suit 5,060, page 62	44	16	0
Mortgage, document 167, Suit 5,060, pages 4 and 62	65	13	8
" " Suit 5,060, page 63	50	6	10
Hann and Croaker, <i>vide</i> documents 371, 372, Suit 5,060, pages 4 and 62; received 21 January, 1885	77	0	0
Refund, <i>vide</i> documents 371, 372	44	16	0
McDonald, suit 5,060, pages 3 and 62	50	0	0
Hann and Croaker, <i>vide</i> document 385, Suit 5,060, pages 4 and 62; received 29 May, 1884	8	8	0
Hann, <i>vide</i> document 376, Suit 5,060, pages 4 and 62; received 12th February, 1885	6	3	0
	<u>£6,176</u>	<u>16</u>	<u>11</u>

*Exhibits A No. 8.*

Badgery Bros.; deposit paid by testator in signing Avington Contract, 9th July, 1883, <i>vide</i> document	250	0	0
Pitt, Son, and Badgery, amount received from Danger and Bell for cattle sold them after testator's death	1,987	13	0
	<u>2,237</u>	<u>13</u>	<u>0</u>
Less one-third of profit due to Badgery Bros. in Avington Contract	465	11	10
	<u>£1,772</u>	<u>1</u>	<u>2</u>

Bank of New South Wales—for Cox, Dowling, & Co.'s four promissory notes deposited by testators, not under discount—handed by Bank of New South Wales to Mr. P. Hann—see Hann's letter of 21st April, 1884, viz. :—

P.N. due 22nd May, 1884	for	£	s.	d.
" " 6th June, " "	"	3,061	0	0
" " 29th " " "	"	2,560	5	0
" " 24th July, " "	"	2,592	10	0
		1,594	7	6
		<u>£9,808</u>	<u>2</u>	<u>6</u>

(For further particulars see Division F 1. These four promissory notes were duly honoured at maturity, and concealed from the accounts filed on application for probate by Mr. P. Hann, and also concealed from the account filed by the executors in the Equity suit No. 5,060.)

Contingent profit on Avington cattle contract—see Account Document No.	£1,482	6	4
Liability to Messrs. Oliver, Smith, & Co., for amount due to this firm, as per Pitt, Son, and Badgery's invoice—see Document 451. (A promissory note was given by testator, for this amount, due 3rd May, 1884)	£9,441	0	0

Under an agreement dated 9th July, 1883, testator purchased the Avington herd from Pitt, Son, and Badgery—*vide* documents 485, 486, 487, 488, and 489—vendor's agents, the whole of the Avington herd, consisting of about 10,900 head, at 45s. per head, and paid £250 as deposit. The said vendor's agents and testator subsequently arranged to share the agreement, the vendor's agents participating to the extent of one-third share in the said agreement; this agreement was endorsed to and accepted by vendor's agents, testator having to provide funds for working expenses, and that during the months of October, November, and December, 1883, testator drew cheques upon his banking account to the extent of £1,504. Under the said agreement of 9th July, 1883, testator lifted a portion of the said herd, and gave to vendor's agents, Pitt, Son, and Badgery, a promissory note, due 3rd May, 1884, for £9,441. The cattle so lifted testator sold, and delivered a portion to Messrs. Cox, Dowling, & Co., and for such sales received four promissory notes (for full particulars see Division F, No. 1), the following being the approximate account of the Avington cattle purchase :—

<i>Debit.</i>		<i>Credit.</i>	
Testator's cheques for expenses	£ 1,504 0 0	Cox & Co.'s P.N.'s. for cattle	£ 9,808 2 6
Testator's P.N. for cattle	9,441 0 0	Sale of plant	546 0 0
Profit	1,396 15 6	631 head of cattle sold after testator's death	1,987 13 0
	<u>12,341 15 6</u>		<u>12,341 15 6</u>

Mr. Hann and Mr. Croaker, the executors, concealed the whole of these transactions from the estate accounts, *vide* my affidavit of 25th October, 1898—Division F, No. 1. *Exhibit*



## ON ESTATE OF THE LATE S. M. SWIFT, OF PETERSHAM.

## Exhibit A, No. 9.

G. Sandall.

Bills receivable, due at testator's death.		£	s.	d.
Haynes, received by executors	100	0	0	16 Aug., 1899.
F. Stephens, received by executors (see Suit 5060, page 3)	678	2	3	
C. W. Music, received by executors, 12th August, 1884 (see Suit 5060, pages 3 and 63, and document 350)	558	14	5	
Langheims, received by executors, 2nd June, 1884 (see Suit 5060, page 3, and documents 395 and 399)	1,000	9	10	
G. T. Evans, received by executors, 25th February, 1885 (see Suit 5060, pages 4 and 62)	46	12	3	
S. Wood, received by executors	20	0	0	
	3,403 18 9			

## Exhibit A, No. 10.

Mr. Bradley, for cheques advanced by testator to purchase fat cattle, £2,119; and profit, £26 ds. 2,135 4 0

The following are the particulars of cheques drawn by testator shortly before his death, for which no proceeds have ever been returned to the estate by the executors, Mr. P. Hann or Mr. C. H. Croaker, viz. :-

	£	s.	d.
Drawn, 9 Jan., 1884; cashed, 17 Jan., 1884, for (half share of) 57 head, at £6	171	0	0
„ 31 „ 1884; „ 4 Feb., 1884, „ 53 „ £7	378	0	0
„ 1 Feb., 1884; „ 4 „ 1884, „ 60 „ £7	420	0	0
„ 1 „ 1884; „ 4 „ 1884, „ { 30 „ £6 5s.	400	0	0
„ 9 „ 1884; „ 12 „ 1884, „ { 40 „ £5			
„ 9 „ 1884; „ 12 „ 1884, „ 100 „ £7 10s.	750	0	0
	2,119 0 0		

*Vide* documents (cheques) 282 to 286, inclusive, and press letter copy-book marked B, page 666. Extract from testator's letter to Mr. James Robinson, Kimo, 24th January, 1884:—"Dear Sir,—Without prejudice. When must I remove the 100 (one hundred) bullocks bought from you? Markets are very full, and until I can make a market I might lose. Write definitely to a day, and I will keep time."

*Vide* same book, pages 667 and 668. Extract from testator's letter to Mr. M. Bradley, 25th January, 1884:—"I consider it the best chance you ever had to buy. Cattle must very dear. It is a question of keeping back delivery, as markets are rushed by men that cannot hold through water falling. Now do best you can. Secure everything, and as long delivery as possible."

Same book, page 669. Extract from testator's letter to Traffic Manager, Railway Office, Redfern, 28th January, 1884:—"I want twelve trucks at Cootamundra to load cattle on Tuesday, 12th prox., for Thursday, 14th. Sale at Homebush. Please supply, and oblige."

Extract from same book, page 669, from testator's letter to Mr. James Robinson, Kimo, 28th January, 1884:—"Dear sir,—Yours of the 26th instant to hand, fixing date for delivery for your bullocks; thanks for the concession. Bradley will be there."

These bullocks were sold on the 14th February, 1884—four days before testator's death—and no proceeds of such sale have ever been accounted for or received by testator's estate; the entire transaction has been concealed by the executors, Mr. Hann and Mr. Croaker.

## Exhibit A, No. 11.

Wool venture and wool in transit, *vide* letter press copy-book, marked B, page 500.—Extracts from testator's letter to Messrs. Peele, Borradaile, & Co.:—"3 November, 1883—146 bales per Lastingham A-JH, and 133 bales per Lastingham DAJ.

Coolabah

Boamba

Also <i>vide</i> extract from Mr. R. M. Pitt's letter to Mr. P. Hann, 19th September, 1884:—"Peel was telling me that Old Swift's share in some wool specs was about... and he was sending you a cheque." Document 287.	£300	0	0
In book marked S1, page 34, I find a statement by Hann and Croaker, of 5th July, 1884:—"36 bales of wool from the wethers now on their way to Sydney from Rockhampton" This wool I have taken at £15 per bale	550	0	0
	£900 0 0		

## Exhibit A, No. 12.

Mont de Piete, 1,000 £1 fully paid-up shares, Nos. 40,771 to 41,770, inclusive £1,050 0 0  
This amount was paid to the executors on 31st October, 1884, viz., £900 and £150 (the latter being a portion of £500 paid on 31st December, 1884—Documents 401 to 414).

These shares were transferred by the executors, Mr. P. Hann and Mr. C. H. Croaker, to Mrs. Swift, on the 24th April, 1884, for £1,050.

Kimberley Pastoral Association, 2 <sup>1</sup> / <sub>4</sub> th	£146	5	5
Testator paid on 30th May, 1882	£100	0	0
Testator paid on 14th February, 1883	46	5	5

Kiandra G.M. Co., 250 shares ( <i>vide</i> documents 415 and 418). Messrs. Thompson and Son's offer of 22nd May, 1884, 4s. 6d. each	56	5	0
	£1,252 10 5		

The whole of these shares were concealed from the account filed by Mr. Hann and Mr. Croaker on their application for probate.

## Exhibit A, No. 13.

Testator's private banking account with Bank of New South Wales at the time of his death was in credit to the extent of £399 4s. 5d. The executors, Mr. Hann and Mr. Croaker, in their account filed an application for probate, place it as a liability for £399 4s. 5d., thereby defrauding the Government of stamp duty on £798 8s. 5d. (See Exhibit A, No. 6, and documents 388 and 391.)

Bank of New South Wales, Bourke Branch, account in the name of J. Thorburn, a drover. At testator's death this account was in credit to the extent of £9 10s. 9d., and not £49 9s. 9d. debit, as entered in the accounts filed by Hann and Croaker in their application for probate. (See Exhibit A, No. 6, avoiding stamp duty on £59 0s. 6d.)

Bank of New South Wales, Walgett Branch, the debit balance at testator's death was £137 6 10  
See P. Skinner's letter, document. Executors entered £280 19s. 8d. as a liability in their accounts on application for probate, avoiding stamp duty on £143 12s. 10d.

## Exhibit A, No. 14.

Liabilities to Drovers.—All the drover's accounts had been settled by testator shortly before his death, and on reference to the executor's account, filed on application for probate, it will be seen that the whole of the figures are—"round figures," estimated for the purpose of reducing stamp duty on probate—had they have been *bona-fide* creditors, the executors would have stated the actual amounts. As a specimen of Mr. Hann's *bona-fides*, I quote the following extract from Mr. Hann's letter to Mr. John McDonald, of 21st April, 1884 (see press letter copy book No. 18, page 241:—"We gave Redford an estate cheque on 21st April, 1884, for £187 4s. 3d., and charged the whole of it to Swift's. When the account was before the Registrar, it showed the account as follows:—McDonald, £17 16s. 6d.; Swift and Hann, £57 4s. 6d.; Swift, £99 5s. 2d.; and interest, £9 2s. 5d."

Exhibit

G. Sandell.

*Exhibit A, No. 15.*

16 Aug., 1899.	Creditors—		
	G. and P. Mein .....	£15,000	0 0
	Wright, Heaton, & Co. ....	1,910	4 0
	Federal Bank Account.—A Bill receivable entered in the accounts filed on application for probate as a liability—avoiding stamp duty on £200 (see <i>Exhibit A, No. 9</i> ).		
	Particulars of the assets and liabilities on Baden Park, Moira Plains, Mimosa West, Browley, and Snubba Run, that existed at the date of testator's death, compiled from the estate documents by George Sandell :—		

*Exhibit B, No. 1.*

Baden Park, Blocks S and T, and Moira Plains, Block A—			
38,241 sheep ; for numbers, see Book S No. 1, page 21 ; for value, Lavender's valuation.....	£17,208	9	0
109,000 acres ; for area and value, see equity suit 5,060, page 38 .....	21,800	0	0
House, working plant, &c. ; for area and value, see equity suit 5,060, page 38 .....	10,900	0	0
Tanks, 105,900 yards ; .....	5,130	0	0
Fencing, 121 miles ; .....	5,295	0	0
Fencing, 67 miles ; .....	5,445	0	0
	2,345	0	0
	£68,123	9	0

On 2nd May, 1883, Mr. P. Hann valued this property with 33,000 sheep thereon at £63,000—*vide* press letter copy book 31, page 157. In the accounts filed on application for probate, Mr. Hann placed its value at £50,715. (For further particulars, see my affidavit of 25th October, 1898, under Division A, No. 2.)

*Exhibit B, No. 2.*

Mimosa West Station—Leasehold run of about 43,500 acres, fenced and subdivided ; thirteen large and small paddocks, 21 tanks, woolshed, huts, house, outbuildings, hay-shed, &c., with 28,000 sheep—rent £50 per annum .....	£28,000	0	0
960 acres of freehold, and 320 acres of conditional purchases .....	1,123	0	0
See Lavender's valuation .....	£29,123	0	0
Add horses, cattle, and plant ; see equity suit 5,060, page 38.....	1,000	0	0
	£30,123	0	0

For number of sheep on station, see Book S No. 1, page 21—28,365 head. This valuation does not disclose the whole of the Mimosa West lands. (For further particulars, see *Exhibit B, No. 9*.)

*Exhibit B, No. 3.*

Browley Station and property :—

Messrs. C. L. Griffiths & Co. sold this property on 2nd April, 1884 (see Document 194), and the following is a true copy of that firm's receipted commission account, viz. :—

April 4th, 1884. To commission on sale to Messrs. J. and A. Macks, Browley Estate, 1½ per cent. on £14,564 16s. 9d. ....	£218	9s.	5d.
--	------	-----	-----

The following are the particulars of the said sale to Messrs. J. and A. Macks, *vide* Book 12, page 362, viz. :—

	£	s.	d.
6,824 acres of C.P., and 40 acres of freehold, at 35s. ....	12,012	8	9
Interest on purchase, as agreed .....	634	11	4
5 horses, 14 cattle, and furniture .....	197	17	2
8,508 station sheep (see Book 12, page 363) .....	2,552	8	0
	15,397	5	3
Less sale of property for Messrs. Griffiths' commission .....	218	9	5
	15,178	15	10
Add for value of 5,132 sheep not sold with station, at 6s. ....	1,539	12	0
	£16,718	7	10

For particulars and number of sheep, 16,231, see Book S, No. 1, page 21.

The executors, Mr. P. Hann and Mr. C. H. Croaker, entered the value of this property, in the account filed on application for probate on the 5th April, 1884, as £13,317 10s., notwithstanding the property had been sold three days prior to filing the said account for upwards of £15,000. (For further particulars see Division A, 4.)

*Exhibit B, No. 4.*

Snubba Run and property :—

Messrs. Pitt, Son, and Badgery sold this property on 9th October, 1884 (see documents 195 and 197), and the following is a true extract thereof, viz. :—

	£	s.	d.
Snubba Run.....	5,000	0	0
Interest thereon, as agreed .....	262	10	0
	5,262	10	0
Less agent's commission and charges.....	131	15	0
	5,130	15	0
Add thereto the following property, sold since testator's death, that existed on the run at time of testator's death, and not included in sale by Pitt, Son, and Badgery, viz. :—			
5,512 sheep, sold to Pope, <i>vide</i> Equity suit 5,060, page 69 .....	1,792	6	0
8,614 " " Winter, <i>vide</i> Bates' letter-book .....	4,522	7	0
1,000 " " Halloran, <i>vide</i> Equity suit 5,060, page 69.....	425	0	0
163 " " " .....	31	0	0
90 rams, unsold and unaccounted for, taken at 42s.....	188	0	0
2,081 sheep, " " " 7s. 6d. ....	780	7	6
	£12,869	15	6

(For further particulars, see Division A, 5.)

The executors, Mr. P. Hann and Mr. C. H. Croaker, entered the value of this property, in the accounts filed in application for probate, as £7,210.

*Exhibit*



G. Sandell.

Exhibit B, No. 9.

16 Aug., 1899. Mimosa West Station.—Lands concealed by Mr. Haun and Mr. Croaker from the account filed on application for probate; the first eleven are dummy selections, taken up by employees, and paid for from the station funds by Mr. P. Hann—for detailed particulars, see supplementary particulars to Division D.

acres.				£	s.	d.
400	C.P., in the name of H. Austin, 5s. deposit per acre, 24th January, 1884, and 5s. per acre improvements...			200	0	0
640	" " M. Behan " 20th September 1883			320	0	0
320	" " M. Cody " 8th March, 1883			160	0	0
400	" " M. H. Davies " 8th August, 1883			200	0	0
320	" " T. Frayne " 14th June, 1883			160	0	0
640	" " W. J. Gore " 27th April, 1882			320	0	0
640	" " D. Halloran " 20th September, 1883			320	0	0
640	" " T. Yourall " 8th March, 1883			320	0	0
96	M.C.P. " W. J. Gore, 10s. per acre, 13th September, 1883, 10s.			96	0	0
120	" " J. Hanson " 20th " 1883			120	0	0
80	" " W. O. Mitchell " 20th " 1883			80	0	0
1,280	I.P., applied for (before an I.P. can be applied for improvements to the value of 20s. per acre must have been put on the land) .....			1,280	0	0
1,520	I.P., applied for on pre-lease, at 2s. per acre .....			152	0	0
960	C.P., Swift and Hann's, paid for 21st November, 1882, 22nd February, 22nd August, 1882—for value see Equity suit 5,060, page 38—at 45s. ....			2,160	0	0
640	C.P., Swift and Hann's, paid for 9th August and 9th October, 1883—for value see Equity suit 5,060, page 38—at 32s. ....			1,024	0	0
				£6,912	0	0
	Deduct for the value of 960 and 320 acres, included in Lavender's and Webb's valuation—see Exhibit B, No. 2...			1,123	0	0
				£5,789	0	0
1,920	acres of pre-lease, Gore's, 4th September, 1882, value, 8s. per acre .....			768	0	0
960	" " M. Cody's, 22nd July, 1883 " .....			384	0	0
1,920	" " T. Yourall's, 4th December, 1883 " .....			768	0	0
				£7,671	19	0

If additional evidence is necessary to prove that Mr. P. Hann knew of these selections prior to filing the account on application for probate—I refer to a statement of account in Mr. Hann's handwriting—see book S., No. 1, page 40a, "Mimosa Station, 960 freehold, 5,256 acres of doubtful conditional purchases"; also see Mr. Hann's letter to testator, 3rd October, 1883—see book 31, page 437—and Mr. Hann's letter to Wilkinson, Graves, and Lavender, 1st May, 1884, see book 12, page 9.

Exhibit B, No. 10.

Sundry debtors, viz. :—	£	s.	d.
<i>Brouley</i> , rent paid in advance for the year ending 31st December, 1884, when run was sold on 2nd April, 1884. Messrs. Macks arranged to repay, and on 12th November, 1884—see book 12, page 363—paid Mr. Hann this amount .....	49	19	10
<i>S. Payne</i> —due on his I.O.U.—documents 232-215, 216. Mr. Hann's letters—book 12, page 98, book 17, page 262, and suit 5,060, page 52 .....	220	4	2
<i>Mr. J. Hay</i> , for proportion of dividing fence—documents, 217, 218, 219, 220, 221, and 222, also 634; on 17th December, 1887, executors received £300—see bank pass-book .....	500	0	0
<i>J. McDonald &amp; Co.</i> , for proportion of droving expenses paid to Mr. Haun on 21st February, 1884, <i>vide</i> suit 5,060, pages 4 and 62, also book S No. 1, page 35 .....	50	0	0
<i>Wynne, Hudson, &amp; Co.</i> , for $\frac{1}{2}$ share in 18 $\frac{1}{2}$ miles of fencing, see documents 223 and 224, part paid to executors, 18th August, 1884 .....	158	15	3
<i>Halloran</i> (Mr. Hann's partner) for horse and waggon sold, <i>vide</i> bank pass-book, recd. 17th January, 1885, book 12, page 298 .....	94	14	6
<i>James and Martin</i> , for horse and water-keg, paid to Mr. Hann .....	20	10	6
<i>Mr. Meaher</i> , for grey mare, paid to Mr. Hann .....	13	10	6
<i>Henry Laws</i> , for three horses, paid to Mr. Hann .....	10	0	0
<i>G. Desailly</i> , for 10 miles of fencing, at £20 per mile; see document 231, and bank pass-book, paid on a/c., 29th March, 1886—£100 .....	200	0	0
100 bags corn; see Book S., No. 1, page 40a. 7 head of cattle, 4 road waggons, tip-dray, &c. ....	100	19	1
	£1,418	13	10

Exhibit B, No. 11.

Shares not disclosed in account filed on application for probate :—

<i>Mount Kembla</i> Coal Co., 30 fully paid-up £10 shares, paid for by cheque drawn 25th March, 1882, documents 317; also see Hann's letter 6th December, 1883, book 7, page 159 .....	300	0	0
<i>Catherine Gold-Mining Co.</i> 3 shares, as per Mr. Hann's statement of 18th Feb., 1884, documents 232-200; also book S., No. 1, page 40a. ....	216	13	4
	£516	13	4

Exhibit B, No. 12.

Horses and Cattle not disclosed in account filed on application for probate :—

94 horses at station, selling price £10 per head; see Webb's, station manager's returns, document 232....	940	0	0
80 head of cattle at station, selling price £5 per head; see Webb's returns, document 240; also stock assessments, document .....	400	0	0
	£1,340	0	0

Exhibit B, No. 13.

Rent adjustments, refunds, and rabbit subsidy. (Rent of Baden Park, Moria Plains, Mimosa West, and Snubha, were paid on 3rd January, 1884, "in advance" for the year ending 31st December, 1884, £169; see bank pass-book, and documents 241, 242, and 243. The proportion to the 18th February, 1884, only should have been charged—the balance paid in advance from 18th February, 1884, to 31st December, 1884, should have been treated as an asset) .....	146	6	0
Rabbit refund for 1883, received 5th April, 1884; see bank pass book .....	23	10	0
Rabbit refund for quarter ending December, 1883; received 17th June, 1884, document 246.....	10	2	9
Rabbit refund for quarter ending March, 1884; received 8th July, 1884, document 245.....	34	11	7
	£234	10	4

Exhibit



G. Sandell.

Exhibit B, No. 20.

16 Aug., 1899.

Creditors, 18th February, 1884 : -	£ s. d.
Pitt, Sou, & Badgery—No account due .....	51 5 9
J. Sinclair .....	53 10 5
Copeland & Co. (this was a private liability of Mr. Hann's).....	2 12 0
W. C. Hunter .....	

Total .....

£107 8 2

Particulars of the Assets and Liabilities on the Mungie Bundie, Boolooroo, and Gravesend Stations that existed at the date of Testator's death, compiled from the Estate documents by George Sandell :—

Exhibit C, No. 1.

Mungie Bundie, Boolooroo, and Gravesend Stations, 35,000 acres of freehold land with improvements thereon, taken at the low valuation of 45s. per acre .....

£78,750 0 0

Twenty-five shillings per acre is the actual amount paid to the Government for the freehold land; the improvements on the same are estimated at 20s. per acre. Mr. J. Henderson, who personally inspected these stations in February, 1887, valued the 35,254½ acres of freehold land at £75,622 18s. 9d., and valued 67,116 acres of leasehold and improvements thereon at £10,193 6s., making together £85,818 4s. 9d. (see document). These valuations of Mr. Henderson were adopted and used by Mr. P. Hann in the accounts filed in the Equity suit, No. 5,060, which were duly signed by Mr. John McDonald and Messrs. Peele, Borradaile, & Co., accountants, who prepared the said accounts as a correct valuation, clearly proving that the valuations of Messrs. Pitt and Badgery, as per my affidavit of 25th October, 1898—see Division A, No. 7—was an improper valuation to deceive the Stamp Commissioner; that since preparing my statement of assets and liabilities—as per page 31 of Minutes of Evidence—I have discovered that there were additional selections on these runs—as per supplementary particulars, Division D, viz., No. 15, 16, 17, 18, 19, 20, 21, and 22 of the cost value of £3,151 12s. 2d.—also concealed from the accounts filed on application for probate by Mr. Phineas Hann and Mr. C. H. Croaker, the executors, and Mr. John McDonald.

Exhibit C, No. 2.

Leasehold runs, consisting of 190,000 acres and improvements and plant thereon, as per the valuation of Mr. R. M. Pitt and Mr. H. S. Badgery—*vide* document 509 .....

£17,000 0 0

Exhibit C, No. 3.

Sheep on the three runs, viz. :—85,241 at 10s. per head .....

£42,620 0 0

For numbers, see Mr. John McDonald's signed report of 4th May, 1887, document 561, page 1; also stations stock assessments, documents 516, 517, 518, and 520, as 79,000 head.

For values, the average station selling price for the year 1884 was 10s. 1d. per head. Mr. R. M. Pitt and Mr. H. S. Badgery valued these sheep, without inspection, at 9s. per head, *vide* Division A, 7.

Exhibit C, No. 4.

Horses on the runs, viz. :—200, at 150s. per head .....

£1,500 0 0

For numbers, see Mr. John McDonald's letter of 20th March, 1884, document No. 508.

For value, see Mr. R. M. Pitt and H. S. Badgery's valuation, 150s. per head, Division A, 7, the average selling price on the station for the year 1884 being 150s. per head.

Exhibit C, No. 5.

Cattle on the three stations, viz. :—4,797 at lowest selling price of station. 90s. per head .....

£21,586 0 0

For numbers, see original stock assessments for the year 1884, documents 516, 519, and 560, viz. :—

On Mungie Bundie run .....	450 head.
On Gravesend run .....	3,217 „
On Boolooroo run .....	1,330 „
<b>Total</b> .....	<b>4,997 „</b>
Less number of horses, per Exhibit C, 4 .....	200 „
<b>The actual number on the three stations at date of testator's death</b> .....	<b>4,797 „</b>

For value, the average station selling price for the year 1884 was £5 17s. 6d.; for year 1885, £4 16s. 3d.; and for the year 1886, £4 10s. per head.

The foregoing assets, as disclosed in Exhibits C, Nos. 1, 2, 3, 4, and 5, were valued in the accounts filed on application for probate by Phineas Hann, C. H. Croaker, and John McDonald, at £106,500. I allege that these assets should have been valued at £161,456, and in support thereof I extract the following from an original letter written by the testator to Mr. Maiden, 26th August, 1882, *vide* documents 495 :—“Referring to our conversation last night *re* our station on Gwydir, I can only give you a rough outline as to what we have there; but if anything could be done or prospects of a sale, I would write to McDonald for full particulars and terms for Mungie Bundie, Boolooroo, and Gravesend, with stock and purchased land, &c.; we want £150,000 sterling. Terms could be arranged. The following is about the number of stock, acres of country, purchased land, conditional purchase and improved lands :—Mungie Bundie, 55,000 acres; Boolooroo, 61,000; and Gravesend, 80,000, including about 40,000 freeholds, 75,000 sheep, and 4,000 cattle.”

The following assets, as disclosed in Exhibits Nos. 6, 7, 8, 9, 10, 11, and 12, were concealed from the accounts filed on application for probate by Mr. P. Hann, Mr. C. H. Croaker, and Mr. J. McDonald, viz. :—

Exhibit C, No. 6.

Wool in transit at date of testator's death, £1,817 18s. 7d., *vide* Union Bank of Australia—John McDonald & Co.'s account, per pass-book, on 23rd September, 1884, account credited with proceeds of 114 bales, ex “Killarney”; also see press-letter copybook B, page 609. Testator's letter to Mr. Sharp, 27th December, 1883. “Enclosed memo. refers to balance of Mungie Bungie clip of 1883; please send me bills for it as soon as shipped.” The station shearing for the year 1884 commenced in October, and it would have been an impossibility for this wool to be the proceeds of 1884 clip.

Exhibit C, No. 7.

Sundry debtors, &c., at testator's death : -	£ s. d.
L. Seaton & Co., for 3,000 ewes, sold 10th January, 1884 .....	1,200 12 0
These sheep were delivered on 7th January, 1884, by Drover Halloran. Mr. J. McDonald received a six months' P.N. from L. Seaton & Co., which was discounted and credited by the Union Bank of Australia on the 12th April, 1884, two months after testator's death. See station ledger, folio 577, and banker's pass-book.	
G. Cook, for 2,100 ewes, sold 8th February, 1884 .....	413 10 0
These sheep were delivered by Drover Sinclair before testator's death, and Mr. John McDonald received and banked £209 10s., on 21st February, 1884, three days after testator's death; and on 18th April, 1884, discounted Cook's P.N. for £204. See Union Bank of Australia pass-book and station ledger, folio 571.	
P. McCormack, debtor at testator's death .....	129 0 0
This amount was received by Mr. J. McDonald, and entered in the signed accounts prepared by Peele, Borradaile, & Co., by Mr. John McDonald, as owing to the station. See accounts, page 1.	
R. Child, debtor at testator's death .....	88 0 0
See station ledger, folio 681, and also signed accounts, page 1.	
J. Jurd, debtor at testator's death .....	12 10 6
Received by J. McDonald. See bank pass-book, 21st February, 1884.	
Cash in hand at date of testator's death. See signed account, page 1 .....	15 4 2
<b>Total</b> .....	<b>£1,859 2 8</b>

Exhibit

## Exhibit C, No. 8.

Gwydir River Pumping Co ..... £192 12 0  
 See signed accounts. Mr. John McDonald therein states it was an asset at the date of testator's death. See page 1. 16 Aug., 1899.

G. Sandell.

## Exhibit C, No. 9.

Refunds from Treasury—refunds for 1883.—Wyndham's and Emmett's selections received by John McDonald. See Union Bank of Australia pass-book, 8th March, 1884, £23; and 5th July, 1884, £448.

## Exhibit C, No. 10.

Rent adjustment for year 1884 ..... £241 8 3  
 The rents for Gravesend and Mungie Bundie were paid on 17th December, 1883, for the year ending 31st December, 1884, in advance, viz., £97. The rent for Boolooroo was paid on 11th January, 1884, also in advance, for the year ending 31st December, 1884, viz., £191. The proportion to the 18th February, 1884, only, should be charged against the estate account to the date of testator's death. The balance should have been carried forward as an asset.

## Exhibit C, No. 11.

S. M. Swift's sheep on Mungie Bundie Station at date of testator's death, viz. :—  
 £ s. d.  
 8,184 Mercaool ewes, at 8s. 6d. per head (purchased and paid for by testator from Messrs. McLauchlin Bros., 5th October, 1883; vide station ledger folio 576, and document 525) ..... 3,478 4 0  
 5,641 ewes, at 10s. per head (vide station ledger folio 595, and document No. 504—shearing expenses charged against testator)..... 2,820 10 0  
 6,298 14 0

## Exhibit C, No. 12.

John McDonald's overdrawn salary account (vide station ledger folios 19 and 166) ..... £310 7 8  
 Mr. John McDonald's salary was £200 per annum, and after testator's death, without any authority, seems to have been increased to £500 per annum.

2. Have you any other documentary evidence? I wish also to submit the evidence I have prepared with regard to the concealed assets of the estate—the under-valuation of the estate, which I referred to in my affidavit of 25th October, 1893. This is giving further details as to the wool, the land on the stations, and all the particulars as to the purchase of it, and with regard to the land which I have put down under the head "dummings." It deals with the partnership claims and dummings, and the concealed estate assets. The evidence I refer to is as follows:—

## Baden Park Station, purchase and mortgage of.

In 1876, Mr. C. F. Fraunfelder was possessed of Block "S," and requiring financial assistance, entered into arrangements with the testator to endorse Fraunfelder's bills, which at their maturity, Mr. Fraunfelder was unable to meet, and testator had to provide funds; in 1876, Mr. Fraunfelder purchased from Messrs. Day, Hayes, and McKinnon Block "T," arranging to sell testator a share, if testator would further finance, stock, and improve the runs. Testator provided further funds, and opened a banking account on 14th January, 1878, under the name or style of "S. M. Swift & Co." with the Bank of New South Wales, Tammut Branch, paying to the credit of the account £334, and on the 18th January, 1878, £600, and from time to time other large amounts.

Mr. Fraunfelder drew on this account for the working expenses of the station; at this period testator was possessed of three-fourths share in the property which he carried on in his own name and that of Mr. John McDonald; the remaining share (one-fourth) belonged to Mr. Fraunfelder.

During the year 1878, Mr. John McDonald, who was engaged on the station directing some improvements, having by some error of judgment constructed a well on an adjoining run, costing £810, some unpleasantness arose, and Mr. J. McDonald ultimately retired from the partnership on the 14th May, 1879, testator taking over his share, and giving to Mr. J. McDonald a letter of release. I submit the following particulars for the Select Committee's consideration.

Extract from testator's letter to Mr. J. McDonald, 5th April, 1879, document:—"I am quite ready and willing to release you from your share, and will give you a clear acquittal any time you wish; I do not wish it, and you should consider it, at all events keep it to yourself, as if you persist in giving it up, I shall not share it with Hann; will keep it to myself." On page 209, "If you wish when you return from Baden Park, I will give you a written attested release from all interest and liabilities in any way at Baden Park."

Extract from Mr. P. Hann's letter to Mr. Wilkinson (Mr. Hann's late partner), 13th May, 1879 (vide Book 2, page 372).—"I was surprised to hear that McDonald had withdrawn from Baden Park, and that Swift now holds a half share in it." (Testator, after taking over McDonald's share, became possessed of three-fourths).

Extract from testator's letter to Mr. J. McDonald, 14th May, 1879 (see document 590), written by Mr. P. Hann, and signed by testator.—"In accordance with your wishes expressed in your letter of the 13th, received this morning, I hereby agree to take over all your liabilities and interest in the Baden Park property, managed at present by Mr. C. F. Fraunfelder, and to release you from all claims thereon. Yours truly (signed), S. M. SWIFT—Witness, P. Hann." It seems hardly creditable that Mr. Hann would have signed as a witness, had he been a partner, nor would Mr. McDonald have accepted.

Extract from Testator's letter to Mr. Fraunfelder, 26th May, 1879, document 592:—"McDonald is not going up; after looking into everything, in disgust he gave up his share to me, as I had given him that option when going into it."

Extract from Testator's letter to Mr. Murchison, 1st August, 1879, document 605:—"The shareholders are, myself, two; Mr. McDonald and a man named Fraunfelder, one each. I have most money in it. I had to put £1,700 in for Fraunfelder along with my own two shares; it will be the best property I own in a few years."

Testator's signed letter, written on Bank New South Wales paper, document 257:—"To the Manager of the Bank of New South Wales, Sydney, 13th September, 1879.—In consideration of the Bank of New South Wales granting my firm of Swift & Co. a further advance of £500 (five hundred pounds) I agree to transfer to the Bank Baden Park run, Block 'S,' in the Albert District, and will also transfer Block 'T' as soon as I am in a position to do so. I also agree to mortgage at once to the Bank 13,000 sheep and other stock now running on the said Stations 'S' and 'T,' and will procure my partner's signature to the said mortgage and transfers, which Mortgage and transfers will be held by the Bank as further security for all my present and further liabilities to the Bank of New South Wales, in connection with my other accounts. I further agree to obtain sanction of Messrs. Swift and Fraunfelder to this agreement. Yours faithfully, S. M. Swift."

Testator's signed letter to the Manager of the Bank of New South Wales, Tammut, 30th October, 1879, document 258:—"Herewith we beg to hand you a mortgage over Moama Blocks "S," of the Baden Park run and 13,000 (thirteen thousand) sheep depasturing thereon, and transfer of the said block as collateral security for an advance of four thousand three hundred and fifty pounds (£4,350) to our firm of S. M. Swift & Co., under our bond of this date, and made in the penal sum of eight thousand seven hundred and fifty pounds (£8,750). We agree to hand you a transfer of Moama Block "T" as soon as it is transferred to us, and which is also to form part of the security for the above advance of £4,350 (five lines following ruled out in original). Yours faithfully (signed), S. M. Swift and C. F. Fraunfelder."

Notwithstanding Mr. Hann's various affidavits, stating he was admitted a partner in 1878, it appears up to this period he was not included in any document as a partner of the Baden Park Blocks "S" and "T" with Swift and Fraunfelder. From my further investigations, I find that on 8th December, 1879, testator borrowed from Mr. W. A. Brodrigg £8,000 at 8 per cent, and gave a stock mortgage and transfer of the said runs "S" and "T," together with promissory notes for principal and interest. These notes were signed by S. M. Swift, C. F. Fraunfelder, and P. Hann. I conjecture that Mr. Hann signed by way of indorsement, and not as a partner, as on writing to Mr. Webb, on 20th February, 1880, vide Book 3, page 454, Mr. Hann says, "The writer does not draw or operate at all on Swift & Co.'s account."

G. Sandell.  
19 Aug., 1899.

On 9th January, 1880, Mr. Brodribb's solicitors, Messrs. McCarthy, Robertson, and Fisher, delivered their bill of costs to S. M. Swift & Co., amounting to £34 5s., which was paid on same date by cheque drawn on the S. M. Swift & Co. banking account, "for drawing, obtaining, executing, and registering stock and station mortgage, discharge of stock and station mortgage from Bank of New South Wales," documents 624, 625, and 626.

On the 19th January, 1880, *vide* documents 627 and 628, letter and account in Mr. Hann's handwriting, to the Bank of New South Wales, Tumut: "Dear sir,—Enclosed we beg to hand you Swift & Co.'s promissory note, value £430 13s. 5d. sterling, being balance of amount owing to us for sheep sent to Baden Park from Mimosa. This bill is sure to be provided for at maturity, and we should like you to discount it to our credit.—Yours truly (signed), Swift and Hann."

Copy of account (document 628):

Wagga Wagga, 13th January, 1880.

Messrs. S. M. Swift & Co., Baden Park.

Dr. to Swift and Hann.

Balance of sheep sent to Baden Park .....	£426 10 6
Thirty-nine days' discount on same for overtime, bill dating from 1st January, 1880, instead of 23rd November, 1879.....	4 2 11
	£430 13 5

If Mr. P. Hann had been a partner in S. M. Swift & Co. at Baden Park at this period, he was asking the Bank of New South Wales to discount his own promissory note without disclosing the fact.

That I find, on 8th December, 1882, testator, by a letter of request to the Manager of the New Zealand Loan and Mercantile Agency Co., Ltd., to repay Mr. Brodribb £8,000. On the 3rd January, 1883, testator wrote to Mr. Brodribb (see document 641) "to sign and return transfers of the runs 'S' and 'T.'" These transfers Mr. Brodribb returned, duly signed, on 4th January, 1883 (see document 642), and that up to testator's death the transfers were in his possession, and the runs remained in Mr. Brodribb's name. Testator died on 18th February, 1884. That on 23rd February, 1884, Mr. Hann had an interview with Mr. Shepherd Smith, general manager of the Bank of New South Wales, and on 25th February, 1884, Mr. Hann wrote the following letter, *vide* Book B, pages 699 and 700, which I affirm was the commencement of the conspiracy to defraud the beneficiaries under the will:—

"The General Manager, Bank of New South Wales. Dear Sir,—Respecting our interview of Saturday concerning the position of affairs brought about by the death of my partner, Mr. S. M. Swift, I, as the surviving partner, after careful consideration and consultation with the executors" (the executors were P. Hann and C. H. Croaker) "in the estate consider that it will be most desirable and in the best interest of all concerned to continue the working of the partnership properties, viz., Mimosa, Baden Park, and Browley until such time as the executors may deem it desirable to reduce as directed under the will of the late S. M. Swift, and which they have determined to do as soon as a satisfactory result can be brought about. To do this I have to apply to the bank to permit and assist me in carrying on the account of Swift and Hann, upon which account there is a present debt to the bank under overdraft and overdue bill of (say) £51,500, which amount I may require to increase for working expenses and permanent improvements up to shearing (say) to £54,000 sterling. The liabilities to mature amount to (say) £6,245; to meet these I propose selling surplus stock, and have, in fact, already sold under a binding agreement for delivery on the 1st April stock realising the sum of £4,687 10s., leaving me with 9,700 good young ewes yet to sell, representing a value (say) at 8s. 6d. each, of £4,100. In conclusion, I presume, the bank will continue as usual to discount the bills representing stock sales. I may add, for your information, that, in the event of the season not being favourable to move the stock sales indicated herein, I am in a position to carry them safely on the runs. I enclose herewith a rough statement, showing present debts and engagements maturing exclusive of working expenses and interest.—Yours truly, P. HANN."

Extract from Mr. P. Hann's letter to Mr. H. Webb, manager and valuator of Baden Park station, 10th March, 1884, *vide* book II, page 235:—"Unless I can sell Browley, now under offer, it is very certain that the Bank of New South Wales will not carry me on, and will insist on the stations being sold before shearing. They are not afraid of the security, but say the will gives us no power to trade—no partnership deed; and the Court would say we held it beyond a reasonable time for realising. The bank are very decided about my not having power to buy sheep for the properties. I want to keep Baden Park."

See Roope's original letter.

"11th March, 1884. Charles Roope, solicitor, Hay, to Swift and Hann, document—

"'Re Tyson. I have heard of Mr. Swift's death, but cannot say definitely who are the right parties to sue until I know more of your partnership deed and Mr. Swift's will.'"

EXTRACT from Mr. Hann's letter to Mr. C. H. Roope, 22nd March, 1884, *vide* Book II, page 351, "There was not any partnership deed existing between the late Mr. Swift and the writer. Extract from Mr. P. Hann's letter to R. J. McKenzie, accountant, engaged making up the Swift and Hann supposed partnership accounts, 18th October, 1884. *Vide* book 15, page 95, "No deed of partnership."

Mr. P. Hann had purchased on his own account from one agent alone, Mr. Bates, of Melbourne, from 27th September, 1883, to 22nd December, 1883, 30,556 sheep, of the aggregate value of £8,623 8s. (see document 111), and the promissory notes given were maturing early in 1884. After testator's death, Mr. Hann made further purchases from the same agent, and I say his desire was to obtain an overdraft from the Bank of New South Wales to carry Mr. Hann on. That there was no *bona-fide* necessity to mortgage any portion of testator's estate, and that I have prepared the following account, exhibiting the "unencumbered" Swift and Hann assets—on the 18th February, 1884—on the assumption that proof of such partnership will have to be established by Mr. P. Hann, and an account of the "realised unencumbered assets," viz. :—

	£	s.	d.
Baden Park—Blocks S and T, and 38,241 sheep depasturing thereon, as per valuation (see <i>Exhibit B</i> , No. 1) .....	68,123	9	0
Deduct therefrom the value of Moira Plains—block A, cost £11,150—and 14,000 sheep at 7s. 6d., £5,250, depasturing thereon. This property, included in Baden Park valuation, was under a stock and station mortgage to Bank of New South Wales prior to testator's death .....	16,400	0	0
Leaving Baden Park—blocks S and T—with 24,241 sheep, to be of the value of .....	51,723	9	0
Smubba Run—Land, £5,000, and following sheep sold after testator's death, viz., 1,102, sold to Halloran for £484 10s. 11d.; 7,383, sold to James and Martin for £4,565 16s. 8d.; 5,774, sold to Mr. Winter for £2,403 12s. 10d.; and 5,512, sold to Mr. Pope for £1,755 2s. 8d. (see <i>Exhibit B</i> , No. 4, for valuation) ..	14,209	4	1
128 bales of wool on Baden Park station at time of testator's death; sold 15th August, 1884 (as per <i>Exhibit B</i> , No. 7), for .....	1,418	5	9
Messrs. Morse and Baker's promissory notes, received by executors after testator's death, and discounted by Bank of New South Wales on 5th May, 1884 (see <i>Exhibit B</i> , No. 5) .....	1,773	13	0
Horses and cattle on Baden Park (see <i>Exhibit B</i> , No. 12) .....	1,340	0	0
Total .....	£70,464	11	10

That there was no necessity to mortgage Baden Park blocks S and T to the Bank of New South Wales, as the total liabilities of Swift and Hann on the 18th February, 1884, only amounted to £5,634 15s., and that these liabilities were paid from the "realised unencumbered assets," as the following account will show:—

Realised



## ON ESTATE OF THE LATE S. M. SWIFT, OF PETERSHAM.

## Realised unencumbered Swift and Hann assets.

G. Sandell.

An account of the proceeds of sheep and wool sales, being the net realisation of the unencumbered Swift and Hann assets, paid to the Bank of New South Wales after testator's death; from which fund the Bank of New South Wales liquidated the Swift and Hann liabilities that existed on the 18th February, 1884. This account is constructed from the Bank of New South Wales pass-book. 16 Aug., 1889.

RECEIPTS.			PAYMENTS.			
	£	s. d.	£	s. d.	£	s. d.
5 May, 1884—To proceeds of corn	55	13 3			14 July, 1884—By McPherson's P.N. paid ...	947 14 0
5 „ 1884—Morse and Baker's P.N.'s discounted	1,756	10 2			14 „ 1884—By Tyson's P.N. paid .....	449 3 0
			1,812	3 5	14 „ 1884—By McFarland's P.N. paid ...	489 9 0
21 July, 1884—To 7,383 ewes sold to James and Martin (testator's sheep) .....			4,565	16 5	14 „ 1884—By Brown's P.N. paid (on account of testator) .....	2,856 5 0
21 July, 1884—To 5,774 ewes sold to Winter from Snubba .....			2,403	12 10	15 August, 1884—By balance carried down...	7,697 3 3
21 July, 1884—To 5,512 wethers sold to Pope from Snubba .....			1,755	3 8		
(The above three items, together with Mack's P.N. for £2,532 8s., were credited in amount £11,225 3s. 7d. on 21st July, 1884.)						
8 August, 1884—To 1,102 ewes and 106 wethers sold Halloran from Snubba .....			484	10 11		
15 August, 1884—To 128 bales of Baden Park wool—proceeds of .....			1,418	5 9		
			£12,439	13 3		
15 August, 1884—To balance brought down ...			7,697	3 3	7 November, 1884—B. Moffatt's P.N. paid ...	892 4 0
27 October, 1884—To 6,321 wethers sold to Sterling Hart from Baden Park Station ...			2,823	8 4	7 March, 1885—By New Zealand Bank to take over transfer .....	4,302 17 3
13 December, 1884—To 54 bales, Baden Park wool .....			660	6 0	7 March, 1885—By balance carried down.....	9,338 8 10
23 December, 1884—To 82 bales, Baden Park wool .....			1,261	19 8		
30 December, 1884—To 25 bales, Baden Park wool .....			321	3 8		
13 January, 1885—To 160 bales, Baden Park wool .....			1,760	9 2		
			£14,533	10 1		
						£14,533 10 1

Bank of New South Wales in account with Swift and Hann, 18th February, 1884. Statement of the values of properties under stock and station mortgages to secure the repayment of the cash credit bond for overdraft, subject to realisation and further charge for interest, &c., viz. :—

	£	s. d.		£	s. d.
To Value of Mimosa West Station and 28,000 sheep, horses, and cattle as per valuation [ <i>Exhibit B, No. 2</i> ] .....	30,123	0 0	By Amount of overdraft at testator's death, per pass-book .....	44,197	2 10
Additional value of C.P. land selected on Mimosa West Station, not disclosed in above valuation [for particulars see <i>Exhibit B, No. 9</i> ] .....	7,671	19 0	Interest thereon to 18 February, 1884.....	1,373	14 0
Value of Browley Station with 13,640 sheep thereon, sold to Messrs. A. & J. Mack, 2 April, 1884 [see <i>Exhibit B, No. 3</i> ] .....	16,718	7 10	Blackett's promissory note discounted and dishonoured .....	5,502	10 0
Value of Moira Plains and 14,000 sheep thereon, included in Baden Park valuation unencumbered asset .....	16,400	0 0	Surplus "Assets over liabilities," subject to further charge for realisation and interest .....	19,840	0 0
	£70,913	6 10		£70,913	6 10

The Bank of New South Wales had allowed Mr. Hann an overdraft which had, on 31st March, 1885, amounting to a debit balance of £12,602 8s. 9d., to continue the supposed partnership, and this was the reason why the Bank of New South Wales required the mortgage of Baden Park Station over Blocks "S" and "T," together with the 18,000 sheep depasturing thereon.

By a statement in Mr. Hann's writing—see document 169, from 11th November, 1886, to 27th April, 1887—Mr. Hann had purchased on his own account 25,627 sheep, costing £9,974 6s. 7d., using the Mimosa Station. Mr. Hann sold a portion for £10,906 10s. 6d., leaving sheep on hand to the value of £1,355 8s., making a profit of £2,287 11s. 11d. Not one penny of this profit came to the credit of the testator's estate. The manager of the Bank of New South Wales had full knowledge that Mr. Hann was so using the station for his private speculations.

May 27, 1887. Book 16, page 324. P. Hann to S. Payne, the then manager of Mimosa West Run (intending purchaser) :—"He will also want to see the stock, and to make them a bit better you can show the Tumbleton studs and the two rams, instead of the 500 station wethers and the 160 weaners. Explain all, extra stock being mine, and not belonging to the station."

See document 171. Mr. Green's letter to Mrs. Swift, April 26th, 1888 :—"Our general manager has been taking into consideration the state of the account of Swift and Hann, and in view of the fact that you and Mr. Hann are not working amicably together, and, further, as to certain rumours that have reached us that Mr. Hann has been using the stations as a depot for sheep, in very large numbers purchased by himself and another party, thus jeopardising the interest of all by consuming the feed on the run, every blade of which should be preserved for the stock on the station, we have decided to go into possession."

Mr. P. Hann's letter to the Bank of New South Wales, 21st April, 1884, *vide* suit *Swift v. Bank of New South Wales*, No. 3,717, page 26 :—"In consideration of your handing over to us two bills made by Cox, Dowling, & Co., for £3,061 and £2,560 5s., maturing 22nd May and 6th June respectively, we hereby undertake to, when requested, give to the Bank security over Baden Park Station, and 20,000 sheep thereon, provided the debt owing thereon to the Bank of New Zealand be paid by you, now about £5,500. (Signed) P. HANN and C. H. CROAKER, executors of the estate of the late S. M. Swift."

The promissory notes therein named were handed to Mr. Hann by the Bank of New South Wales, and Mr. P. Hann and Mr. C. H. Croaker concealed them from the accounts they filed on their application for probate. The promissory notes were duly honored at maturity.

Have never been accounted for in any of the accounts filed by the executors.—The amount due to the New Zealand Bank at testator's death was £8,979 18s. 6d. A quantity of wool being in transit reduced the account to £4,288 2s. 3d. on the 7th March, 1885. This was the amount paid by the Bank of New South Wales, from the "realised unencumbered assets" to the New Zealand Bank when the Bank of New South Wales obtained the transfer of the station, which, together with stock, was valued at upwards of £51,723.

Extract

G. Sandell.  
16 Aug., 1899.

Extract from Mr. P. Hann's letter to the New Zealand Loan and Mortgage Agency Company, Limited, 27th June, 1884, Book , page 260 :—"Having arranged with the Bank of New South Wales to pay off the balance of our account in your books, we will be glad if you will acquaint them upon inquiry as to the balance, and upon payment of same hand over to them the whole of the securities held by you, for which this shall be your authority."

Extract from Mr. P. Hann's letter, same date, same book, page 262 :—"Having a lot of stock bills coming due next week, and finding the Bank of New South Wales would not meet them for Swift and Hann without further security, I could only arrange by giving authority for them to pay off the amount owing by them to you and taking over the Baden Park security. Will you kindly give them all the assistance you can in the matter when they call upon you, and, if required, transfer the run direct, so that there may not be any retransfer from me—Yours faithfully, P. HANN."

Mr. Hann's lack of knowledge is remarkably strange, as the Bank of New Zealand did not possess the power of transferring, the run being still registered under the name of W. A. Brodrick.

Telegram from Mr. T. S. Gardiner, manager, Bank New South Wales, Wagga Branch. To Mr. P. Hann, 8th July, 1884. "Re transfer of Baden Park. Solicitors advise cannot be done." See document 664.

Mr. Hann's letter to Messrs. Allen and Allen, solicitors to the Bank of New South Wales, 12th July, 1884, *vide* Book 12, page 88 :—"As promised, I now enclose you the letter received and copy of my reply to the manager of the New Zealand Loan and Mortgage Agency Company, Limited, which I hardly think should be used against him if it can be done without. I never expected any difficulty or opposition from him, and must say he gave us the greatest consideration possible in business; it is, however, necessary for the Bank of New South Wales to have a transfer of the run and mortgage, that they may fulfil the engagements made by the firm of Swift and Hann."

The firm of Swift and Hann ceased to exist, as far as regards the testator's estate, at his death. If, after that event, the Bank of New South Wales allowed Mr. Hann to continue trading, giving Hann a further overdraft, it became the private liability of Mr. P. Hann, and not the liability of the testator's estate. Death dissolves all partnerships, unless provided for by special articles of partnership deed, and as there was never any deed of partnership existing between the late Mr. Swift and Mr. P. Hann there can be no legal claim for survivorship or legal claim by the Bank of New South Wales for any such overdraft to be charged against testator's estate.

Extract from Mr. Hann's letter to Mrs. Swift, 2nd October, 1884, Book 15, page 42 :—"Croaker and I have to-day executed and signed a deed to the Bank of New South Wales, taking over the Baden Park security from the New Zealand Loan and Mortgage Company, Limited, on paying the amount due to them by Swift and Hann."

Extract from Messrs. Abbott and Allen's letter to Mrs. Swift, 8th October, 1884, document No. 673 :—"We have perused the mortgage prepared by the solicitors of the Bank of New South Wales over Baden Park Station, and comprising Moama Block 'S' and 'T,' together with 18,000 sheep. Without for one moment entering into the question of the advisability of giving such a mortgage, we have no hesitation in stating that, as a trustee of the will, you have no legal right to do so. The trustees only possess ordinary power of management, and would not be justified in incurring an extraordinary expenditure or in so dealing with any part of the estate as to prejudice the interest of that or the whole of it."

I have satisfied myself that the Mr. Abbott, of Messrs. Abbott and Allen, solicitors, who advised Mrs. Swift not to sign the mortgage over Baden Park to the Bank of New South Wales, as it was illegal, is a solicitor of very high standing, being your present Speaker—Sir Joseph Abbott.

I have also ascertained that the Bank's solicitor, who compiled and prepared the mortgage signed by Messrs. Hann and Croaker, and witnessed by Mr. Colquhoun, is now also occupying a high position, being the Crown Solicitor. Mr. Colquhoun, who at that time was interested in the firm of Messrs. Allen and Allen, and attended to the Bank of New South Wales' business for that firm. This illegal mortgage was not drawn up in ignorance of Mr. Swift's will, for a copy of the will was made and sent to the Bank of New South Wales by Sir Joseph Abbott, and is included in Messrs. Abbott and Allen's bill of costs, which was paid by Mrs. Swift.

The Bank of New South Wales seem to have been foiled in their attempt to coerce the executrix to sign the stock and station mortgage, but received the co-operation of her co-trustees, Messrs. Hann and Croaker; and on reference to the Registrar-General's Office I find a stock mortgage was registered on , 1884, book No. , no recites.

Mr. Green's (Inspector of the Bank of New South Wales) letter of 15th October, 1884, to Mrs. Swift (document 676) :—"Our Wagga manager informs us that you, by the advice of your solicitors, decline to sign a mortgage of Baden Park to the Bank. I don't know that it is necessary you should do so, as all we required was a transfer to us of that mortgage held now by the Bank of New Zealand, and it is only in accordance with Mr. Swift's promise before his death." [A bull—how could he promise after his death?] I question the veracity of Mr. Green's statement. Anxiety to obtain the security obscures the truth, as the property had been continually under mortgage from 8th December, 1879, to 8th December, 1882, to Mr. Brodrick, and from that date under a promise of mortgage to the New Zealand Loan and Mortgage Agency Company (Limited) to pay off Mr. Brodrick. Hence my disbelief in Mr. Green's statement.

In press-letter copybook 12, at page 231, I find the following letter in Mr. Green's handwriting, 29th October, 1884 :—"To the Manager of the New Zealand Loan and Mortgage Agency Company (Limited). Dear Sir,—Please transfer to the Bank of New South Wales the lease of Baden Park Run, known as Moama Blocks S and T, with mortgage on sheep, &c., and the securities attached thereto in favour of W. A. Brodrick, upon payment of your outstanding balance."

Yours faithfully,  
(Signed) P. HANN, } As Executor and Executrix in the estate  
E. SWIFT, } of the late S. M. Swift.

Now the New Zealand Company could not comply with the request in Mr. Green's letter, because the leases were not in their possession to transfer to the Bank of New South Wales, for at that date the "Leases of the Baden Park Run, known as Moama blocks 'S' and 'T,' stood in the name of W. A. Brodrick as registered lessee in the Lands Office books. Neither could the New Zealand Company transfer the 'mortgage on sheep, &c., in favour of W. A. Brodrick' to the Bank of New South Wales, as the testator had paid off Mr. Brodrick on 8th December, 1882, when the "mortgage on sheep, &c." in favour of W. A. Brodrick was discharged—Registrar-General's Office-book , page . On the same date Mr. Brodrick signed and handed to testator transfers of the leases of "Baden Park run," known as Moama Blocks "S" and "T," in blank; but the testator had omitted to have his name registered as lessee, instead of Mr. Brodrick's, in the Lands Office books, consequently the New Zealand Loan and Mortgage Agency Company, Limited, had no control or power over these discharged documents, as they were in the possession of the testator, and the transfers given by Mr. Brodrick to the testator should have been dated and filled in and registered in the names of his trustees—Elizabeth Swift, Phineas Hann, and Charles Hawthorne Croaker, as lessees of Baden Park; but instead of doing this, Messrs. Hann and Croaker handed the blank transfers of the leases over to the manager of the Bank of New South Wales, who dated and wrote in the name of the Bank of New South Wales as lessees, instead of the names of the testator's trustees, and registered them in the Lands Office; but as the Land Act of 1884 had just come into operation, the applications should have been made on new forms under the new Act; those given to the testator were under the old Act, therefore, the bank obtained new transfers, filled them up by the same persons, and Mr. Hann then got Mr. Brodrick to sign them under the pretence that, because the transfers by Mr. Brodrick to the testator had never been registered, and Mr. Brodrick no doubt was under the impression that he was then only completing the transfer to the trustees, as he signed them in blank, and the name of the bank was written in afterwards. See Mr. Hann's letter to Mr. Brodrick of 6th November, 1884. There was nothing owing to Mr. Brodrick by testator; he had no interest in Baden Park; by giving the leases to the bank Messrs. Hann, Croaker, and Brodrick have committed a fraud on the legatees, and the bank concurred in the fraud and forgery by having the titles transferred to the bank. No doubt Mr. Hann's object in doing this was that the true ownership of the station might not appear, and that for this transfer the bank would carry him on.

Mr. Hann swore before Mr. Justice Innes in No. 2 Jury Court that this letter was signed on 29th October, 1884. "I met her at Pitt, Son, and Badgery's, and went with her from there to the bank; Green wrote it; my impression is that it was written in her presence; it was filled up before she signed; I took the document to Wagga with me." (19-11.)

This must be untrue, as Mr. Hann's letter of 1st November proves. As an expert in caligraphy, I have most carefully examined the supposed signature of Mrs. Swift with undoubted signatures of the same period, and have no hesitation in saying that this signature is a forgery. I am prepared to state on oath my reasons, after minute analysis, for arriving at such a conclusion. The signatures are unattested. Mrs. Swift informs me that she is prepared to make a declaration to the same effect, and to swear that she never signed the letter or went with Mr. Hann to the Bank of New South Wales on 29th October, 1884. She had gone to Wagga on the 25th to interview her co-trustees, Mr. Hann and Mr. Croaker, to ascertain why they had signed a mortgage to the bank which they had asked her to sign, and other matters of great importance to the testator's estate. For a few days Mr. Hann would not see her, and he then went to Sydney to attend the funeral,

and

and there acted as a trustee for his late partner, Mr. Harvey Welman. She remained in Wagga until Mr. Hann's return on 31st October, when she returned to Sydney. Had Mrs. Swift signed this letter of 29th October, 1884, would there have been any necessity for Mr. Hann writing the following letter? Extract from Mr. Hann's letter to Mrs. Swift, 1st November, 1884 (*vide* Book 15, page 103), "I find it will also be necessary for you to sign the letter to the Bank of New South Wales, as we are likely to want a considerable overdraft, &c." Extract from Mr. P. Hann's letter to the Manager of the New Zealand Loan and Mortgage Agency Company (Limited), 25th October, 1884 (*vide* Book 12, pages 226 and 227), "I have your favour of the 20th, and feel hurt at the tenor of it, as I thought that when arrangements had to be made with the Bank of New South Wales for taking up your account that you willingly concurred. The delay has been with them, and not with me. When you were first seen about the S. and H. account, I should have been glad if you had offered to take over the whole account from the Bank of New South Wales; but now they have assisted us in all wanted at the time; also I pointed out that you were shipping from Adelaide wool belonging to the Bank of New South Wales, and until now, I did not know that you charged a commission on wools, as I had not noticed such charges in the pass-book."

The delay was caused by the Bank of New South Wales' solicitors advising the transaction to be illegal.

Extract from Mr. P. Hann's letter to Mr. Brodribb, 6th November, 1884 (*vide* Book 12, pages 235 and 236), "The transfers that you signed for our Baden Park Run, 'Moama Blocks S and T,' to the New Zealand Loan and Mortgage Agency Company (Limited) have never been registered, consequently they still stand in your name. (Signed) SWIFT AND HANN—by P. Hann. Letter from New Zealand Loan and Mortgage Agency Company (Limited) to Mrs. Swift, 13th November, 1884, document—"Would you kindly call on Mr. Holt at the Bank of New Zealand at your early convenience. He wishes to see you in reference to the Bank of New South Wales paying off."

Mrs. Swift informs me that she duly attended Mr. Holt on the following day and took notes at the time of the conversation with that gentleman. She asked Mr. Holt what security he held from Mr. Swift for the debt which the Bank of New South Wales were so anxious to pay off. Mr. Holt said he held no security for the present overdraft, only Mr. Swift's verbal promise to give the wool from Baden Park Station to be shipped by Mr. Holt to London for sale and the proceeds applied to pay off Swift's overdrawn account. He said he had shipped a portion of the wool and reduced the account about £3,000, but that the Bank of New South Wales, with Mr. Hann's assistance, had, in defiance of Mr. Holt, taken possession of the remainder of the wool promised by Mr. Swift to him, and in that way had left the account still unpaid of about £4,200. Mr. Holt told Mrs. Swift that Mr. Swift had given him a memo. in December, 1882, saying, if called on he would give Mr. Holt a mortgage on Baden Park stock and wool, if Mr. Holt would allow Mr. Swift an overdraft of £8,000 to pay off Mr. Brodribb; but as Mr. Swift had paid off the £8,000 and had again created a new overdraft, the payment for which the wool had been promised, as the memo. of 1882 would be no security for the new account. She requested the New Zealand Loan and Mortgage Agency Co. (Ltd.) to refuse the transfers, as Messrs. Abbott and Allen, her Solicitors, had informed her that the Trustees could not legally do so. These letters refute the probability of Mrs. Swift having signed the letter written by Mr. Green on the 29th October, 1884.

From my further examination of the Estate papers, I find that on the 7th March, 1855, Messrs. Stephen, Laurence, and Jaques, Solicitors acting for the Bank of New South Wales, paid to the New Zealand Loan and Mortgage Agency Co. (Ltd.) £4,288 2s. 3d., the balance of account of the Testator's overdraft at this date. The Bank of New South Wales debited the Estate account with £4,303 17s. 3d., on the same date that Mr. W. A. Brodribb gave fresh transfers of the lease of the Baden Park Run, known as Moama Blocks "S" and "T," on the 26th September, 1885, to the Bank of New South Wales, and the consideration is therein stated as £4,304 in each transfer, but no such consideration was paid or due to Mr. Brodribb, his claim having been satisfied on 3rd December, 1882.

Extract from Mr. Hann's letter to Mr. R. J. McKenzie, 11th December, 1884 (*vide* Book 15, page 173):—"I never knew that Mr. Swift ever invested any actual capital when we joined together. If you want any information from Tumut you must apply there for it. I cannot give my own time for writing about what I do not understand."

Letter from Bank of New South Wales to Mr. P. Hann, 3rd November, 1885, document 419:—"Re Swift and Hann account. I am instructed to notify to you that after consultation with our solicitors it has been decided that this account must henceforth be worked strictly in liquidation, &c. I have just received these instructions by this morning's mail and hasten to acquaint you with them. (Signed) T. S. Gardiner, Manager."

Extract from Mr. P. Hann's letter to Mr. Fraunfelder, 18th November, 1885 (*vide* book 16, page 53):—"The bank have ample margin in their securities, and do not refuse on that score; but on the ground of my legal position as surviving partner and trustee in the estate, saying the law did not allow me to buy, and that the law will not recognise their right to pay them, and that all my stock sales must go in liquidation of the estate."

Extract from Mr. P. Hann's letter to Mr. P. P. Gell, 22nd November, 1885 (*vide* book 16, page 56):—"Mr. Fraunfelder saw me last evening, and I explained all the circumstances to him, showing clearly that our position and securities were good—my purchases amounted to almost £13,400 sterling, and the bank have paid fully £11,000 before they refused doing anything more, thus leaving me with only £2,400 in these bills to provide for. It arises through their solicitors saying they cannot charge these things against the old securities; that I acted illegally in purchasing, as my late partner's will did not provide for it; and that the account now is only in liquidation. I wish they had discovered this in time, and then I would not have bought a single sheep for the runs; or that they had warned me in time, and allowed me to resell. The bank have now submitted a proposal, which I shall lay before my solicitor to-morrow, and if I can legally comply with it will do so, &c. If I have committed one wrong act I cannot commit a second, as the two wrongs will not make one right."

Extract from Mr. Hann's letter to Mr. Webb, 25th November, 1885 (*vide* book 16, page 62):—"I have been called upon by the bank, so as to justify their acts in carrying us on, to give them an account of all our expenditure since Mr. Swift's death."

These letters point to the fact that the bank of N.S. Wales had been acting illegally in allowing Mr. Hann to continue trading as Swift and Hann, and charging his increasing overdraft against the testator's estate; nevertheless, the overdraft was allowed to Mr. P. Hann until the 18th August, 1888, when the bank went into possession of the testator's properties.

I will now refer the Select Committee to the evidence published by Messrs. Allen and Allen—the solicitors to the Bank of New South Wales—of Mr. Hann's evidence given for the defendant bank in the suit No. 3,717, *Mrs. Swift v. Bank of New South Wales*, viz., examination of P. Hann as to Baden Park:—"Fraunfelder, Swift, and I were in partnership in 1878" (*vide* page 18).

"The defendant bank took over the mortgage and the account from the New Zealand L. and A. Co. at my request after Swift's death" (*vide* page 19):—"Mortgage from Hann, both as an individual and executor, with Croaker the other executor—but not the plaintiff—to the defendant bank, of Baden Park and stock. 2nd October, 1884," page 20. Cross-examined: "Mrs. Swift refused to execute the mortgage, only executed by Croaker and me; she told me so, and the bank knew she would not execute it," page 23. "Brodribb had really no beneficial interest in the matter," page 24. "After the bank paid off the New Zealand Co., I cannot say what money the Bank of New South Wales received as gross proceeds from Baden Park; but it was considerably more than £4,300, before they seized in August, 1888," page 25. "At the shearing of 1885 over 40,000 sheep were shorn at Baden Park; all the gross proceeds of the clip, which, of course, were over £3,000, went into the hands of the Bank of New South Wales. For 1885, that also was paid into the bank; for 1887, also, the same applies. In 1886, there were a lot of sheep; 22,000 sold through Bates realised £8,250, also paid into the bank. In August, 1885, 9,000 sheep were sold to James White & Co.; they realised £4,414 10s., which was paid into the defendant bank," pages 25 and 26. "The value of Baden Park Run and stock in October, 1884, was £50,000, as well as I could judge, including Moira Plains, which was fully one-third of the whole value."

In conversation the bank had explained that, as executors, we could not mortgage. I see I state that in my letter of 13th October, 1884, page 26.

Re-examined: This document you now show me is signed by me in my two capacities—Swift and Hann—and as executor of Swift, 21st April, 1884; and by Mr. C. H. Croaker, as executor. I had forgotten the existence of those bills of Cox, Dowling, & Co., maturing 22nd May and 6th June. The bank did hand over the bills, page 26.

From my examination of the estate documents, I find there were four promissory-notes given by Messrs. Cox, Dowling, & Co., for Avington cattle purchased from the testator, amounting to £9,808 2s. 6d. (see *Exhibit "A,"* No. 8); that these promissory-notes were simply deposited, and were not under discount with the Bank of New South Wales; at maturity they were duly honored; the executors, Hann and Croaker, concealed them from the account filed on application for probate, and no proceeds have ever been brought into the executor's account. Mr. Hann, in his statement to the Stamp Commissioner of 27th September, 1893, denied that the testator had any interest in them. On examination of the accounts filed by Mr. Hann in the Equity suit, No. 5,060, at pages 42 and 43, the net proceeds for sheep and wool of Baden Park,

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G. Sandell. Park, for the years 1884-5, 1885-6, and 1886-7, paid to the Bank of New South Wales, amounted to £33,624 10s. 3d., viz. :-		£	s.	d.	£	s.	d.
16 Aug., 1899.	Advance on 160 bales of wool, page 45, 1884-5 .....	1,769	9	2			
	Proceeds of 325 " " " .....	3,743	4	9			
	Proceeds of 364 " " 1885-6 .....	2,883	2	3	5,512	13	11
	Advance on 263 " " " .....	2,219	11	3			
	Surplus from " " " .....	2,512	18	1			
	Advance on 137 " " 1886-7 .....	1,951	5	9	7,615	11	7
	Advance on 210 " " " .....	3,295	0	0			
	6,345 sheep sold, page 42 .....	2,855	9	0	5,246	5	9
	9,210 " " .....	4,144	10	0			
	22,000 " " .....	8,250	0	0			
					15,249	19	0
					£33,624	10	3

Being the amount realised for three years from the Baden Park Station, and paid into the Swift and Hann continuation account of Mr. Hann, operated on solely by Mr. P. Hann. Section 14, subsection 2, of this Colony's "Partnership Act, No. 12, of 1892, provides that where, after a partner's death, the partnership business is continued in the old firm's name, the continued use of that name or the deceased partner's name as part thereof, shall not of itself make his executors or administrator's estate or effects liable for any partnership debt contracted after his death"; and section 33: "Death dissolves all partnerships unless provided for by partnership deed"; and had the mortgage of Baden Park been a *bond fide* transaction to assist in the realisation of testator's estate, sanction of the Equity Court should have been first obtained; and then the Bank of New South Wales should have kept a separate account of transactions, and not placed them in hotch-potch. The account should have been drawn against by the executors and executrix, and not solely by Mr. Hann.

By way of illustration of the Bank of New South Wales' machinations, I submit two grave charges of evasion of the provisions of the Crown Lands Acts, committed by the manager of the Wagga Wagga Branch of the Bank of New South Wales and Mr. Hann: Firstly—Henry Austin, "a dummy selector" and a station employee in the service of the testator, took up, at the special request of Mr. P. Hann, a selection of 400 acres of conditional purchase unimproved land on the Mimosa West Station on 24th January, 1884. The deposit of 5s. per acre was paid by cheque drawn by P. Hann from the station banking account, kept at the Bank of New South Wales, Wagga Branch; and that the following extracts are from original documents in my possession. For full details, see Division "D," supplementary evidence:—

Extracts from Mr. P. Hann's letter to the station manager, Mr. M. Cody, 23rd January, 1884, *vide* book 11, page 183:—"Going to take up 400 acres for H. Austin to-morrow, and after then he will go out to you."

Cheque No. 072044, drawn to bearer by Mr. P. Hann on the Wagga Branch of the Bank of New South Wales, 24th January, 1884:—"H. Austin's C.P. for £100."

Extracts from original letters written by Mr. T. S. Gardiner, Wagga Branch of the Bank of New South Wales to Mr. W. J. Gore, the manager of Mimosa West Station, after the Bank of New South Wales had taken possession of the said station.

Extract from letter dated 2nd February, 1889:—"When will Austin be coming to make his declaration? His time was up on the 24th January."

Extract from letter dated 20th February, 1889:—"I have yours of the 17th; and, in regard to Austin, I do not think there is any occasion to retain him any longer. *He need have no fear as to his getting his bonus*; that will be paid to him as soon as the certificate is issued, which I do not think will be long, as the papers have all gone on to the Under Secretary for Lands for approval."

Extract from letter dated 2nd April, 1889:—"With regard to Austin, you may tell him that he will get is £50, as soon as the certificate for the conditional purchase is obtained, and I am pushing for its issue."

Extract from letter dated 11th April, 1889:—"I have yours of the 9th inst., enclosing Austin's receipt, for which I thank you."

On searching the Registrar-General's Office I find in registered book, 415, No. 951, a transfer of 400 acres of conditionally purchased land from H. Austin to the Bank of New South Wales, 14th February, 1889; consideration money, £462 10s.

A. R. Orr, "a dummy selector," a station employee in the services of testator, took up, at the special request of Mr. P. Hann, a selection of 320 acres of land on the Mimosa West Station, 2nd May, 1884, and that Mr. P. Hann drew a cheque for £80 on the Bank of New South Wales, Wagga Branch, to pay for the deposit of 5s. per acre; that the clause under which the selection was taken up would terminate in May, 1889.

Extracts from original letters written by Mr. T. S. Gardiner, manager, Wagga Branch, Bank of New South Wales, to W. J. Gore, the Bank's manager of the station.

Extract from letter dated 9th May, 1889:—"I have yours of the 7th inst., per A. R. Orr, who has made his declaration and transferred conditional purchase. He tells that there are some items owing to him in connection with improvements on the conditional purchase amounting to £5 11s., and I told him that if they were necessary, and had your sanction, of course, he would be paid the amount. It will be for you to say if he is entitled to it. No doubt for various reasons we should not cavil about it. I have told him that as soon as the certificate is issued the balance coming to him, on the conditional purchase, £50, will be paid."

Extract from letter dated 15th May, 1889:—"Should a buyer go out you will, of course, show him round, and in doing so, do not show him the drover's selections as part of the property, as they are not yet wholly transferred to the run, and we do not wish to accept any responsibility in regard to them. You can pay Orr the £5 11s."

Extract from letter dated 3rd July, 1889:—"I have now the pleasure to advise that the certificate of A. R. Orr's conditional purchase has come to hand to-day, and that therefore you can now pay him the £50 coming to him on his signing the accompanying receipt, which be good enough to forward here."

The Minister for Lands would be able to furnish the dates of the issue of these certificates, and so confirm or refute these damning allegations of evading the provisions of Crown Lands Acts by this Institution there are other dummying transactions that require investigation. For fuller particulars I refer to any statement, Division D, Supplementary Evidence.

In reviewing the documents herein quoted clearly denotes that Mr. Hann's statement, that Fraunfelder admitted Swift and himself into partnership in 1878, to be untrue.

Testator's letters of 5th April, 1879, and 14th May, 1879, offering and giving release to Mr. J. McDonald, and the release being written by Mr. P. Hann, and also witnessed by Hann, together with Hann's letter to Mr. Wilkinson of the 13th May, 1879, are strong testimony against Mr. Hann's claim.

Testator's letters to Mr. Murchison, of 1st August, 1879, saying, "The partners were himself (two shares), Fraunfelder, and McDonald (one each)." Testator's letters of 13th September, 1879, and 30th October, 1879, to the Bank of New South Wales, confirm this opinion; and Mr. Hann's letters to Mr. Webb, of the 20th February, 1880:—"The writer does not draw or operate at all on Swift & Co.'s account." Mr. Hann's letter to the Bank of New South Wales, of 19th January, 1880:—"Requesting the Bank to discount Swift & Co.'s promissory note." Mr. Hann's letter to R. J. McKenzie, of 11th December, 1884:—"I never knew that Mr. Swift ever invested any actual capital when we joined together."

Taken in conjunction with Mr. Hann's other letters, is conclusive proof to my mind that Mr. Hann's claim to one half interest in the property, as disclosed in the "B" statement filed on application for probate, is spurious; and in summarising the Bank of New South Wales' dealing with this property with Mr. Hann, having regard to testator's letters of 13th September, 1879, and 30th October, 1879, and Mr. Hann's letter to the Bank, of 19th January, 1880, the Bank of New South Wales should have known that Mr. Hann was not in partnership with testator up to this date. I now come to Mr. Hann's interview of 23rd February, 1884, and his letter of the 25th February, 1884, to the Bank of New South Wales, to permit and assist him to continue trading by granting an overdraft. The advice of the Bank's solicitors, and also Messrs. Abbott and Allen's, that the mortgage was illegal, that there was no necessity for such mortgage to assist in the realisation of the Estate, as on referring to the realised unencumbered assets there remained a large balance after paying the

whole

whole of the liabilities that existed at the date of testator's death. There was no *bona fide* advance to the testator's estate. The Bank of New South Wales were in possession of ample securities to meet their advance to the Swift and Hann account for the overdraft that existed at testator's death. Then the only necessity for such further mortgage was to secure the Bank of New South Wales against the overdraft allowed to Mr. Hann after testator's death. The Bank's evasion of the provisions of the Crown Lands Acts, and their general conspiracy with Mr. Hann, it is unnecessary for me to pass any further remarks upon these transactions, as their criminal nature stands out in bold, glaring relief.

G. Sandell.  
16 Aug., 1899

SUPPLEMENTARY PARTICULARS to Division "D" Land Acts.

*Evasion and Dummying.*

The following extracts from Mr. P. Hann's letters upon dummying prove that he knew he was evading the provisions of the Crown Lands Acts:—

4th May, 1883, *vide* Book 31, page 162.—“We shall have to see what position we stand in with these men (selectors), and by-and-bye block them by dummying around them.”

19th May, 1883, *vide* Book 10, page 43.—“The land can only be secured by selection, and we have not people enough to do it with; but as soon as I find their land surveyed, and I can get proper description, I mean then to use Frayne and some others and adjoin their boundaries, to cut them off from getting pre-lease land.”

23rd May, 1883, *vide* Book 10, page 61.—“I wish we could have got the tank-sinkers so we could have secured Gore's and your grass rights. I fancy the piece of land in Ringhole paddock, north of the woolshed, might take the fancy of some one—what think you?”

26th May, 1883, *vide* Book 10, page 68.—“If those selectors are about over the run, and you think some of it going, send in T. Frayne, so that I can take a strip in his name.”

6th June, 1883, *vide* Book 10, page 100.—“We must hold ourselves in readiness to secure any places, and I wish you would give me accurate description of each spot to work upon. Send Frayne in next Wednesday, and I will take up 320 acres.”

7th June, 1883, *vide* Book 31, page 214.—“I must take up 320 acres next week to make sure of spoiling the selectors' chance on one end of the paddock, and connect our I. P. through the C. P. with the boundary.”

13th June, 1883, *vide* Book 31, page 221.—“I shall take up 320 acres to-morrow in one of our men's names, so as to spoil and cut off the selectors.”

4th July, 1883, *vide* Book 31, page 236.—“I note about the dummy matters, and will, the first time I see it wanted, secure a 640 (acres), but not until present C. P.'s are measured.”

17th July, 1883, *vide* Book 31, page 251.—“I had a hint given yesterday evening about being likely to lose a part of Gore's pre-lease, and to-day I have put in three I. P. applications of 320, 200, and 200 acres; but I know the improvements are not there for one and barely commenced for the other 200 acres; but we must chance something, and shall never be able to complete the conditions on Gore's 640.”

18th July, 1883, *vide* Book 31, page 253.—“I know my applications now put in will not be called for payment for fully twelve months, and then they can be put back by a little finessing.”

25th July, 1883, *vide* Book 31, page 262.—“I think the no-survey and refund the best and most saving dodge.”

2nd August, 1883, *vide* Book 10, page 298.—“If there was much chance of his being able to get west, then we should have to take 320 (acres) more for Frayne. I was leaving this an open question just to see whether we wanted Frayne to go east or west of his 320. A good job we had Gore's I. P.'s put in to-day, as a man named G. J. Adams, from Cootamundra, has taken the piece between Gore's, the I. P. of 320.”

8th August, 1883, *vide* Book 13, page 320.—“I mean taking 200 acres between the reserve and paddock, and all between the reserve and No. 6, in some names or others to-morrow.”

8th August, 1883, *vide* Book 10, page 320; to H. H. Brown & Co.—“Will you please enter a protest for W. J. Gore, through us. We have also to-day, on behalf of Gore, put in an improvement application, including this land and about 120 acres more, &c.—in all 240 acres—which we must try and hold.”

5th September, 1883, *vide* Book 31, page 320.—“Mimosa land matters take a lot of time and thought; have particulars from Cody of other land that ought to be taken up. I can manage one 640 (acre) in my man Martin's name.”

14th September, 1883, *vide* Book 10, page 424.—“Next week shall have to secure the two 640's (acres). Gore will explain and show you the 96 acres taken up yesterday just to block a 640, and I may take another like it where marked off in pencil, if you think it advisable.”

19th September, 1883, *vide* Book 31, page 369.—“I intend taking up three or four pieces of land to-morrow; Cody advises it.”

19th September, 1883, *vide* Book 10, page 441.—“I am going to take up some selections to-morrow, and will send you particulars.”

20th September, 1883, *vide* Book 31, page 375.—“Selections are easy enough talked about; I have had four taken up to-day, the two that Cody saw a danger of, 640 (acres) each, and two small mineral C. P.'s 120 and 80 acres.”

22nd September, 1883, *vide* Book 10, page 446.—“The Wagga paper will show you the four pieces of land taken up on Thursday—Mitchell, Hanson, Halloran, and Behan; mark them off on your map. It looks as if another 640 (acres) is wanted in north scrubby, west of Behan's, but I hardly know how to do it.”

22nd September, 1883, *vide* Book 10, page 443. Hann to H. H. Brown & Co.—“I enclose particulars of five pieces of land taken in our interest on Mimosa, three of them being mineral C. P.'s and two C. P.'s, 13 section. We do not expect to be able to fulfil the conditions of either and prefer their running over the twelve months before survey if it can be managed. We might have to take another 640 yet, near and west of Behan's. I send these particulars, as I thought you would like to mark them off, and to know they were in our interest. I intend, on Monday, taking pre-lease for Halloran, Behan, and Mitchell, so that please get them pushed through as soon as possible. Are you urging forward Yourall's and Frayne's pre-leases? Please do so.”

27th September, 1883, *vide* Book 10, page 464; to H. H. Brown & Co.—“In our land office yesterday we found that notice had been sent Mr. M. Cody, 25th September, No. 83/136, that his selection was void on account of vagueness of description, and we thought that it may have been done through you on our account. The selection is ours, improved over £40, and the surveyor, now in the neighbourhood, expected to commence on some of our land next week. If it is not your doing, and it is necessary to assert Cody's right to the land, will you please attend to it; his pre-lease has been granted and a 320 (acres) I. P. applied for on it.”

5th December, 1883, *vide* Book 11, pages 90 and 91.—“I had a great talk with Fisher; he is a cunning, scheming, determined man, &c.; we must preserve to uphold Frayne's C. P.; and, again, I should like to make this up to 640 (acres) next Thursday, &c., so we must fight for it tooth and nail. Be in readiness to get Sunday's letter and to send Frayne in if I want him.”

12th December, 1883, *vide* Book 11, page 104.—“Heard of Frayne being in town one day, but did not see him, and thought he was here for you to return again. His absence makes it a little more difficult to block Fisher, as I meant taking another 320 (acres) for the purpose. I will have to find another person.”

19th December, 1883, *vide* Book 11, page 110.—“You are right; it wants better huts on the selections to show *bona fides*.”

29th December, 1883, *vide* Book 11, page 134; to H. H. Brown & Co.—“The enclosed has been sent to Mr. Cody, and from this it appears that the pre-lease wants putting right as well as the C. P. did. If so, will you please attend to it? This pre-lease is improved, and 320 (acres) applied for on it.”

5th February, 1884, *vide* Book 11, page 203.—“If you can find out anything definite let me know, and on Saturday I may write whether it is necessary for Gore and Austin to come in or not.”

6th February, 1884, *vide* Book 11, pages 205 and 206.—“From your tracing of the position of the land Austin would come just about where I have dotted the line, and then this takes in the land we had Frayne's humpy put on. Austin's must come all along Keenan's south line, if his land is given in the way you have marked it; our object is to fix Keenan so that he cannot get out for a pre-lease. You will understand from this all that I want, &c., and now we must block his intentions for a pre-lease. I have a good old man here, well up in sheep, that I can rely on for a selection if we think it advisable to take one in the N.W. corner of north scrubby; he would be satisfied to live out there and boundary-ride.”

1st March, 1884, *vide* Book 11, page 240.—“When you have a handy man for the huts let me know and I will decide if one has to go on each—Behan's and D. Halloran's selections.”

8th May, 1885, *vide* Book 15, page 293.—“Fisher on Mimosa has been writing about barefaced dummying and injustice to selectors.”

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17th July, 1885, *vide* Book 15, page 340.—“Fisher is also very strong in asserting that our selectors are dummies, and he can prove it.”  
Dummy selections on Mimosa West Station paid for from the station funds, prior to testator's death, and not disclosed in accounts filed by executors. P. Hann and C. H. Croaker on their application for probate, arranged by P. Hann in conjunction with employees, in receipt of weekly wages from 15s. 4d. to 20s. per week, and the Bank of New South Wales, to evade the provisions of the Crown Lands Act:—

<i>Summary.</i>			
No. 1, W. J. Gore	640 acres	C. P. land, transferred to Bank of New South Wales, 1888.	
2, H. Austin	400 "	"	1889.
3, A. R. Orr	320 "	"	1889.
4, W. Purser	640 "	and 1,962 A.C.P. land	1888.
5, M. Cody	640 "	refunded in	1885.
6, M. Behan	640 "	"	1885.
7, T. Youali	640 "	forfeited in	1886.
8, T. Frayne	320 "	refunded in	1885.
9, D. Halloran	640 "	"	1885.
10, J. Elliott	320 "	forfeited in	1886.
11, M. H. Davies	400 "	refunded	1886.
12, J. Hanson	120 "	M.C.P.	1886.
13, W. O. Mitchell	80 "	"	1886.
14, W. Drover	1,220 "	C.P. transferred to Bank of New South Wales	1889.

All these selections were concealed from the account filed on application for probate.  
Dummy Selections on Mungiebundie, Boolooroo, and Gravesend Stations, paid for from the station funds, prior to testator's death, and not disclosed in accounts filed on application for probate; arranged by John McDonald in conjunction with employees in receipt of wages, £20 to £50 per annum, to evade the provisions of the Crown Land Acts:—

No.	Name	Acres	Details	£	s.	d.
No. 15, C. Donaldson	640 acres of C. P. land	192	0	0		
16, J. Potts	C. P., 75/194 and 391 acres A.C.P.	319	18	9		
17, C. Wyndham	C.P.	164	10	0		
18, J. Jurd	C.P., No. 75/72	304	8	1		
19, H. Watts	C.P., 75/159	318	15	2		
20, H. Adams	C.P., 75/82	250	10	8		
21, W. Emmett	C.P., 82/112	160	0	0		
22, T. Warren	No. 76/103 and 77/12	1,432	9	6		
				£3,151	12	2

This amount had been paid from Mungie Bundie out of testator's estate at period of testator's death—and concealed from account filed on application for probate.

No. 1 Dummy Selection.

W. J. GORE, Station Book-keeper, a dummy selector of 640 acres of C.P. land. W. J. Gore's salary account, see station ledgers, "N," folios 238, 1, 91, 103, 223, 243, 277, and "P" 73, 99, and 149, viz:—  
14th November, 1881, to 31st May, 1882—28 weeks and 2 days, at 15s. 4d. per week. £21 14s. 4d.  
1st June, 1882, to 16th December, 1882—28 weeks and 3 days, 20s. per week, £28 10s.  
16th December, 1882, to 16th December, 1883—52 weeks, at 20s. per week, £52.  
16th December, 1883, to 1st April, 1884—15 weeks and 1 day, at 20s. per week, £15 3s. 4d.  
1st April, 1884, to 18th October, 1884—28 weeks and 5 days, at 20s. per week, £28 16s. 5d.  
18th October, 1884, to 31st October, 1884—2 weeks, at 20s. per week, £2.  
1st November, 1884, to 1st April, 1885—5 months, at £70 per annum, £29 3s. 4d.  
1st April, 1885, to December, 1885—36 weeks and 5 days, at £70 per annum, £49 8s. 2d.  
14th December, 1885, to 14th December, 1886—1 year, at £70 per annum, £70.  
14th December, 1886, to 2nd May, 1887—20 weeks, at £70 per annum, £26 18s. 4d.  
2nd May, 1887, to 31st October, 1887—26 weeks, at £70 per annum, £34 19s. 10d.  
31st October, 1887, to 4th January, 1888—£20 1s. 1d.  
1st March, 1888, to 31st May, 1888—3 months, at £90 per annum, £22 10s.  
1st June, 1888, to 31st August, 1888—3 months, at £90 per annum, £22 10s.  
(A man in receipt of commencing 15s. 4d. weekly salary taking up a 640-acre selection.)

The following extract, particulars compiled from original documents, will show how Mr. Hann arranged this dummy selection, and evaded the provisions of the Crown Land Act:—

3rd May, 1882, book 7, page 184—P. Hann to testator:—"I have decided in taking up 640 acres in the name of Gore."  
3rd May, 1882—Cheque drawn by P. Hann on Wagga Wagga Branch of Bank of New South Wales, for "W. Gore's C.P." (See cheque No. 075,836, document 679, being the deposit of 5s. per acre upon 640 acres C.P. land—£160.  
26th May, 1882—Cheque drawn by P. Hann on same bank, cheque butt No. 075,888—"to take up prelease in virtue of C.P."—£6.  
16th July, 1883, book 31, page 250—P. Hann to Swift:—"Two tanks on Gore's prelease, scrubbing and ring-barking, would secure 300 acres each."  
25 July, 1883, book 31, page 259, P. Hann to Swift:—"The selections taken up are—W. Gore, 640, surveyed; Cody, 320; Younall's, 640; Frayne, 320 (not surveyed), can be put back. All of them contain over £40 worth of improvements. Applied for on Gore's prelease, 720 acres."  
21st July, 1883—Agreement to lease for 99 years, from 21st July, 1883, from W. J. Gore to S. M. Swift and P. Hann. Lessees shall pay to the Colonial Treasurer all interests and instalments of purchase, &c.; that the lessees shall erect all such improvements as may be necessary in order to comply with the provisions of the Acts regulating, &c., the Crown lands; that the lessor will fulfil all conditions, &c., in the said Act, regulating the alienation or occupation of Crown lands; lastly, that the lease hereby agreed to be granted, shall be granted when and so soon as the lessor's title to grant such lease under the provisions of the Real Property Act, or any amendment thereof, shall be completed by obtaining the Crown grant, and that in the meantime, and until the granting of the said lease, the said lands shall be held by the said lessees, &c. "All that piece or parcel of land containing by admeasurement 640 acres, &c., conditionally purchased by the said William J. Gore at the Wagga Wagga Crown Lands Office, on 4th May, 1882.—Signed, William J. Gore, in the presence of M. Cody, Mimosa, manager. Entered in Registrar-General's book 274, No. 540, 11th August, 1883, at 12 minutes to 12 o'clock in the forenoon."  
July, 1883—1,003 yards (excavating) Gore's C.P. P.L. (see station ledger "N," folio 234)—£40 19s. 9d.  
July, 1883—904 yards (excavating) Gore's C.P. (see station ledger "N," folio 234)—£48 19s. 4d.  
August, 1883—"Building hut on Gore's C.P." (see station ledger "N," folio 215)—£8.  
August, 1883—Flooring hut on Gore's C.P. (see station ledger "N," folio 317)—£1.  
2nd August, 1883, book 10, page 248—P. Hann to Cody:—"A good job we had Gore's I.P.'s put in, as to-day a man named G. J. Adams, &c."  
8th August, 1883, book 10, page 314—P. Hann to Cody:—"We have also, to-day, on behalf of Gore, put in an improvement application, &c., for 240 acres."  
29th April, 1884—Scrubbing 252½ acres, 4s. 3d., on Gore's prelease (see ledger "N," folio 173, and Q, folio 44—£53 11s.  
3rd September, 1884, book 12, page 145—P. Hann to Cody:—"Frayne and Gore's selections are measured just as I want."  
13th September, 1884—Cheque drawn by P. Hann on same bank for £6 acres of mineral conditional purchase land; cheque butt, No. 071824. £48—being the deposit of 10s. per acre, 30th

- 30th September, 1884—Cheque drawn by P. Hann on same bank for prelease, £6; cheque butt, No. 072191.
- 10th November, 1884, book 12, page 240—P. Hann to Gore:—"I, however, want to satisfy your mind about your rise in salary, and will, from the 1st of November, make it at the rate of £70 per year, and I think this will fully meet your views." G. Sandell.  
16 Aug., 1899.
- 16th February, 1885—Cheque drawn by P. Hann on same Bank, "for expenses on Mimosa land." See cheque-butt, No. 072258—£3.
- 24th July, 1885—Book 12, page 456—P. Hann to H. H. Brown & Co.:—"A short time ago W. J. Gore received the enclosed refund vouchers for his M.C.P. of 96 acres; and as the Department are in error as to its being incorrectly placed, he delayed a little before deciding whether he would accept it or not. The portion is surveyed, and is where he required it, although an error of description may have occurred at the time through want of survey about there. As Keenan is likely to get a conditional lease, Gore thinks it better to uphold his M.C.P., so that he may adjoin the reserves. A glance at the run tracing will at once show you its position, and if you see better advice to give, please do so."
- 1885—Credit Gore's expenses to Wagga land, station ledger "N." folio 277—£1 10s.
- October, 1885—"Clearing and deepening tanks on Gore's selection." Station ledger "N." folio 317—£20.
- 16th November, 1885—Cheque drawn by P. Hann on Wagga Wagga Branch Bank of New South Wales, for annual instalment of 1s. per acre on 640 acres; cheque-butt, No. 075741—£32.
- 24th March, 1886—Cheque drawn by P. Hann on same Bank; see cheque-butt, No. 075773—£32.
- 4th May, 1887—Cheque drawn by P. Hann on same Bank; see cheque-butt, No. 075842—£32.
- 25th February, 1888—Cheque drawn by P. Hann on same Bank, 100 acres of I.P., at 25s. per acre; see cheque-butt, No. 112114—£126.
- 30th March, 1888—Document 726—P. Hann to Gore:—"I found your last instalment receipt yesterday with Mr. Fitzhardinge, and gave it to the Bank; but I cannot find Austin's or Orr's."
- 20th July, 1888—Cheque drawn by P. Hann on same Bank, 90 acres of I.P., No. 112139—£123 15s.
- 4th August, 1888—Cheque drawn by P. Hann on same Bank, 1s. instalment on 640 acres; cheque-butt, No. 112148—£32.
- 23rd August, 1888—Cheque drawn by P. Hann on same bank; purchase of right on 640 acres; cheque-butt, No. 112156—£50.
- 23th August, 1888—Document 756—P. Hann to Gore:—"As you have transferred your 640 and all rights pertaining to it, I now enclose you a cheque for £50, as agreed upon."
- 5th December, 1888—Cheque drawn by P. Hann on same Bank, "Gift to Gore"; cheque-butt, No. 112175—£20.
- Transferred to Bank of New South Wales, Registrar-General's book 385, No. 243.

## No. 2 Dummy Selection.

HARRY AUSTIN, a station employee, dummy selector of 400 acres of C.P. lands.

The following extract particulars, compiled from original documents, will show how this selection was taken up and arranged by Mr. Hann; how the station provided and paid the deposit, annual instalments, and improvements; how the station secured these payments by lease and transfer from the selector—conclusively proving the evasion of the Crown Land Acts:—

- H. Austin's salary account, *vide* station ledgers "N." folios 238 and 165; "P." 4 and 41.
- 26th January, 1884, to 18th October, 1884—33 weeks and 1 day, at 20s. per week, £38 3s. 4d.
- 18th October, 1884, to 27th November, 1884—5 weeks and 5 days, at 20s. per week, £5 16s. 8d.
- 27th November, 1884, to 3rd December, 1885—53 weeks, at 20s. per week, £53.
- 3rd December, 1885, to 16th December, 1886—54 weeks, at 20s. per week, £54.
- 16th December, 1886, to 20th December, 1887—52 weeks and 4 days, at 20s. per week, £53 13s. 4d.
- 3rd January, 1884, book 11, page 139.—P. Hann to Cody:—"Harry Austin is coming up from Browley. Do you think it advisable to take up 320 or 400 acres by him, east of Frayne's; build a hut out there, and let him live there for a time? I almost think so, to check Fisher."
- 19th January, 1884, book 11, page 177—Extract from P. Hann to Cody:—"If you find out at all where selectors are likely to get, let me know by return, as Austin will be up from Browley in a few days, and then I can place him somewhere. If he will go, I am also going to try and arrange for him to go and live out there for six or more months."
- 23rd January, 1884, book 11, page 183.—P. Hann to Cody:—"Going to take up 400 acres for H. Austin to-morrow, and after then he will go on out to you."
- 24th January, 1884—Cheque drawn by P. Hann on Wagga Wagga Branch of New South Wales, No. 072044. For H. Austin's C.P. (cash) on 25th, £100, deposit of 5s. per acre on 400 acres.
- 10th March, 1884—Agreement to lease from H. Austin to P. Hann for 99 years, from 1st February, 1884:—"All that piece or parcel of land containing by admeasurement 400 acres, parish of Bungambil, county of Bourke, being the land conditionally purchased by the said Henry Austin at the Wagga Wagga Crown Land's Office on the 24th day of January, 1884."
- Entered in Registrar General's Book 285, No. 908, 31st March, 1884, at 2:30 o'clock in the afternoon. See original document.
- 24th May, 1884—Making hut for Austin in scrubbing paddock, station books N 183, Q 45, £7 10s.
- August, 1884—Fencing in Austin's horse paddock, 55 chains, station book, N 217, £13 15s.
- 5th August, 1885—Cheque on same bank for 1,750 acres of additional conditional purchase land in virtue of C.P.—cheque No. 075706, deposit of 2s. per acre, £175.
- 26th March, 1887—Cheque on same bank, cheque butt No. 075848, annual instalment on 400 acres, £20.
- 26th April, 1888—Cheque on same Bank, cheque butt No. 112123, annual instalment on 400 acres, £20.
- 19th March, 1888—See original document 720, P. Hann to Gore:—"I see there is an inquiry into Austin's land on the 28th."
- 29th March, 1888—See original document 725, P. Hann to Gore:—"Austin and Orr seem to have been wanting work to do for some time past; they ought to have been together fencing; set them properly to work, &c."
- 10th April, 1888—See original document 729, P. Hann to Gore:—"When Purser's piece is secured it should make a good paddock, and then ought to be under the charge of Austin. As it is, Austin ought to look after the house or anything else there. Austin's and Orr's land together will be such a small paddock."
- 17th April, 1888—Original document 730, P. Hann to Gore:—"If old Harry (Austin) was a free agent and could come in, fight his own battle—we could floor Keenan, I think, as the gentleman now in place of Mr. Bolton views matters differently. No use my bothering, as I must not appear in it, and Harry could not work it up alone."
- 19th April, 1888—Original document 732, P. Hann to Gore:—"The Bank also want to get securities over Orr's and Austin's land, &c., so that next week the Bank will have them prepared and sent out for execution. They will each have to sign and execute the deeds, and it will not place them in any worse position."
- 23rd August, 1888—Original document 756, P. Hann to Gore:—"I hope Austin and Orr will act straight and right, as it will be in our interest for them to do so. I have represented them as decent, straightforward, honest men, that will still carry through their obligations as if nothing had happened, while they are treated in the same way as they have been."
- EXTRACTS from original letters written on Bank of New South Wales (Wagga Wagga) paper, in the handwriting of Mr. T. S. Gardiner, manager, to Mr. W. J. Gore; Documents Nos. 695, 676, 697, 698, and 699, viz:—
- 2nd February, 1889:—"When will Austin be coming in to make his declaration? His time was up on the 24th."
- 20th February, 1889:—"I have yours of the 17th instant; and, in regard to Austin, I do not think there is any occasion to retain him any longer. He need have no fear as to his getting his bonus. That will be paid him as soon as the certificate is issued, which I do not think will be long, as the papers have all gone on to the Under Secretary for Lands for approval."
- 2nd April, 1889:—"With regard to Austin, you may tell him that he will get his £50 as soon as the certificate for the C.P. is obtained, and I am pressing for its issue."
- 4th April, 1889:—"I have to-day received certificate for Austin's C.P., so you can pay him the £50, taking a receipt from him, which I enclose."
- 11th April, 1889:—"I have yours of the 9th instant, enclosing Austin's receipt, for which I thank you."
- I have searched the Registrar-General's books, and find in book 415, No. 951, that Henry Austin transferred this land on the 14th February, 1889, to the Bank of New South Wales for a supposed consideration of £402 10s.

G. Sandell.

16 Aug., 1899.

## No. 3 Dummy Selection.

ALEXANDER ROBERT ORR, a station employee, dummy selector of 320 acres of C.P. land.

A. R. Orr's Salary Account; see station ledgers "N," folios 238, 163, and 227; "P," folios 39, 93, and 145, viz.:—  
 23rd January, 1884, to 26th May, 1884—13 weeks and 4 days, at 20s. per week, £13 13s. 4d.  
 26th May, 1884, to 18th October, 1884—21 weeks, at 20s. per week, £21.  
 18th October, 1884, to 20th December, 1884—9 weeks, at 20s. per week, £9.  
 20th December, 1884, to 20th December, 1885—52 weeks, at 20s. per week, £52.  
 20th December, 1895, to 14th June, 1886—25 weeks, at 20s. per week, £25.  
 14th June, 1885, to 1st July, 1887—52 weeks and 2 days, at 20s. per week, £52 6s. 8d.  
 1st July, 1887, to 1st January, 1888—26 weeks and 2 days, at 20s. per week, £26 6s. 8d.  
 1st January, 1888, to 1st May, 1888—21 weeks and 5 days, at 20s. per week, £21 16s. 8d.  
 31st May, 1888, to 13th September, 1888—13 weeks and 1 day, at 20s. per week, £13 3s. 4d.  
 The following extract particulars from original documents will show how Mr. Hann arranged this dummy selection, and evaded the Crown Lands Acts:—  
 4th April, 1884—Book 11, page 424, P. Hann to Cody:—"If required, how will Orr do for taking up a piece of land?"  
 1st May, 1884.—Cheque drawn on Bank of New South Wales, Wagga Wagga Branch; see cheque-butl No. ;  
 "deposit of 5s. per acre on 320 acres, £80."  
 2nd May, 1884—Book 12, page 10, P. Hann to Cody:—"I have detained Orr for the purpose of taking up 320 acres, and for helping George to move stable things, &c. The paper will show you the description of Orr's land."  
 2nd May, 1884; see original document:—"In consideration of £80, advanced by P. Hann to A. R. Orr, and also in consideration of the said P. Hann making the payments and erecting improvements, I do hereby charge the lands comprised, &c. I agree that if called upon, &c., will execute a mortgage, &c., to P. Hann."  
 2nd May, 1884.—Agreement to lease for 99 years, A. R. Orr to P. Hann:—"All that piece or parcel of land containing by admeasurement 320 acres, parish of Bungambil, county of Bourke; being land conditionally purchased by the said Alexander Robert Orr, at Wagga Wagga Crown Lands Office on the 1st day of May, 1884, &c."  
 Entered in the Registrar-General's Book 288, No. 999, 23rd May, 1884, 2 o'clock in the afternoon.  
 14th May, 1884.—Book 12, page 32. P. Hann to Cody:—"I suppose you will have to put up a place on Orr's selection to carry improvements, and give a show of residence and *bona fides*.  
 August, 1884.—Building hut on Orr's C. P. in station ledger "N," folio 215, £9 5s.  
 1884.—"Stabling two horses and meals for himself." See station ledger "N," folio 163. £1 11s.  
 5th August, 1885.—Cheque drawn by P. Hann on same Bank, as deposit of 2s. per acre, on 1,880 acres additional conditional purchase land, £188.  
 See cheque-butl No. 075708.  
 30th September, 1885.—Book 16, page 28. P. Hann to H. H. Brown & Co.:—"Your yesterday's letter to hand. I feel much vexed over the way that Mr. Farnell has treated us. The Cabinet excuse is just something to say to us, but some other motive and influence has been at work. I want you now to consider the thing well from this point of view,—is it advisable for A. Orr, who has selected the land, to go down and try to upset the decision, and claim the land as being entitled to it, and that Fisher has no right to it; that he wanted land, and now no chance of enlarging his area, &c.; that he is *bona fide*, &c.? If advisable, too, he might be guided by you in all he did and was to do, and then try and work matters through the same channel that Fisher is supposed to have done."  
 5th October, 1885.—Book 16, page 29. P. Hann to S. Payne, manager of Mimosa Station:—"We cannot do anything through Orr yet, as his A. C. P. must be dealt with by the Board. He can take action."  
 17th April, 1886.—Book 16, page 102. P. Hann to S. Payne:—"Elliott's C. P. is forfeited. Orr must be on the lookout for when it can be retaken, and try and get it tacked on to his land. He must have a trial for it against Fisher."  
 30th June, 1887.—Cheque by P. Hann on same Bank. For annual instalment on 320 acres C.P. land, £16.  
 1884.—Expenses to Land Board. See station ledger "P," folio 93, £3.  
 10th April, 1888.—See document 731. P. Hann to Gore:—"Orr's refund voucher has been lost in the Lands Office, and ought to have been paid twelve months ago. Fitzhardinge has only just found it. Get Orr to sign it where marked in pencil; but he need not fill in the bank, or to whom payable, as the Bank will do that themselves."  
 18th April, 1888.—Document 732. P. Hann to Gore:—"The Bank also want to get security over Orr's and Austin's land, so as to have everything compact, &c.; so that next week the Bank will have them prepared and sent out for execution. They will each have to sign and execute the deeds."  
 3rd May, 1888.—See document 735. P. Hann to Gore:—"Orr's voucher all right."  
 10th May, 1888.—Document 738, P. Hann to Gore:—"An error has been made by the Treasury in paying in Orr's refund money to his own credit in Sydney instead of to the credit of the Bank here, and although it is all right, and really makes no difference, still the manager here would like Orr to sign a cheque."  
 2nd June, 1888.—See document 742, P. Hann to Gore:—"Orr's cheque all right to hand."  
 27th July, 1888.—Cheque drawn by P. Hann on Bank New South Wales, Wagga Wagga Branch, for annual instalment on 320 acres C.P.; see cheque-butl, No. 112142, £16.  
 23rd August, 1888.—Document 756, P. Hann to Gore:—"I hope Austin and Orr will act straight and right, as it will be in our interest for them to do so. I have represented them as decent, straightforward, honest men that will still carry through their obligations as if nothing had happened, while they are treated in the same way as they always have been."  
 The following extracts from original letters of Mr. T. S. Gardiner, manager of Wagga Branch of Bank of New South Wales; see documents 700, 704, 707, and 708A, addressed to Mr. W. J. Gore:—  
 9th May, 1889:—"I have yours of the 7th instant, per A. R. Orr, who has made his declaration on and transferred C.P.; he tells me that there are some items owing to him in connection with improvements on the C.P., amounting to £5 11s., and I have told him that if they were necessary, and had your sanction, of course he would be paid the amount. It will be for you to say if he is entitled to it. No doubt, for various reasons, we should not cavil about it; I have told him that as soon as the certificate is issued the balance coming to him on the C.P., £50, will be paid."  
 15th May, 1889.—"You can pay Orr the £5 11s. improvements laid out by him on the selection, taking his receipt."  
 3rd July, 1889.—"I have now the pleasure to advise that the certificate of A. R. Orr's C.P. has come to hand to-day, and that therefore you can now pay him the £50 coming to him on his signing the accompanying receipt, which be good enough to forward here."  
 16th July, 1889.—"I have yours of the 13th instant enclosing Orr's receipt, for which I thank you."  
 That I have searched the records in the Registrar-General's Office, and find that on , 1889, A. R. Orr transferred 320 acres of C.P. land to the Bank of New South Wales. For the supposed consideration of £ , see Registration Book 423, No. 659.

## No. 4 Dummy Selection.

WILLIAM PURSER, a station employee, dummy selector of 640 acres of C.P. land.

The following extract particulars compiled from original documents show how the selection was taken up and arranged by P. Hann:—

W. Purser's Salary Account (see station ledgers "N," folios 238, 225, and 313; "P," 43 and 55, viz.:—

	£	s.	d.
2nd March, 1884 to 18th October, 1884—33 weeks and 1 day, at 20s. per week .....	33	3	4
18th October, 1884, to 16th March, 1885—21 weeks and 1 day .....	21	3	4
16th March, 1885, to 1st December, 1885—37 weeks and 1 day .....	37	3	4
1st December, 1885, to 12th September, 1886—41 weeks .....	41	0	0

6th February, 1884—Book 11, page 206. P. Hann to Cody:—"I have a good old man here, well up in sheep, that I can rely on for a selection if we think it advisable to take one, in the N.W. corner of North Scrubby; he would be satisfied to live out there and boundary ride."  
 13th February, 1884.—Book 11, page 220. P. Hann to Cody:—"I must try and fix up old Purser for the Ariah Bungambil corner; but I cannot fix a true starting-point, &c. I may not take up for Purser to-morrow, so you can send me a description for it."  
 16th February, 1884.—Book 11, page 222. P. Hann to Cody:—"I did not take up any land for Purser; awaiting a description from you for next Thursday."  
 19th



19th February, 1884—Book 11, page 230, P. Hann to Cody :—" Purser, the bearer, is the man I intended taking up the 640 selection within the N.W. corner, and now I shall be away before your description comes for me. If you think there is danger of losing the ground there this week, you fill in the description on the form, and Purser will get the money from Mr. Gardiner, of the Bank of New South Wales, and take up the land." G. Sandell. 16 Aug., 1899.

1st March, 1884—Book 11, page 240. P. Hann to Cody :—" I could not get in time on Thursday to take up the selection for Purser."

6th March, 1884—Book 11, pages 263 and 264, P. Hann to Cody :—" To-day I took up 640 for Purser in the corner, &c. You will find him a good old man, &c. Give him a fairly-good comfortable cottage when he does go to live there, as he will reside and carry through conditions for us. Purser has signed his lease."

25th March, 1884 :—" In consideration of £160 advanced, and in consideration of P. Hann making the payments, and erecting the improvements, &c. I hereby charge the land comprised in the agreement, &c., and if called upon to execute a mortgage, &c.—(Signed) William Purser ; witness—R. B. Wood ; (see document)."

25th March, 1884—Agreement to lease for 99 years :—" All that piece of land, 640 acres, conditionally purchased on 6th March, 1884." Entered in the Registrar-General's Book 285, No. 909 (see Original deed).

6th March, 1884—Cheque drawn on Bank N.S. Wales for £160 (see cheque-butt No. 072076) :—" For deposit on 640 acres at 2s. per acre."

6th March, 1884—Cheque drawn on same bank :—" For expenses to apply for land" (see cheque-butt No. 072079), £4. Last will of William Purser, 6th March, 1884 :—No. 15,622.

I appoint Phineas Hann executor and trustee ; I give and devise 640 acres of land, situate in the parishes of Arianh and Bungambil, county of Bourke, conditionally purchased by me at Wagga Wagga Crown Land Office on the 6th March, 1884, together with improvements, and the land adjoining, &c., unto the said Phineas Hann for his own absolute use and benefit for ever. I give all the residue of my property unto the said Phineas Hann in trust to convert into money, &c.—Signed, WILLIAM PURSER. In the presence of R. B. Wood and W. T. Thorogood (both employees of P. Hann's) on 19th November, 1887. By act of Court, probate of the last will and testament of W. Purser was granted to Phineas Hann.

30th May, 1884—Timber purchased from John Gray, Wagga, to build hut, £7 10s. 6d.

June, 1884—Building weatherboard hut (see station ledger "N," folio 189), £9.

August, 1884—Fencing in Purser's horse-paddock (see ledger, station, "N," folio 217), £20.

11th November, 1884—Cheque drawn on same bank for Purser's pre-lease (see cheque-butt No. 072,213), £6.

15th November, 1884—Book 12, page 246, P. Hann to H. H. Brown & Co. :—" On the 12th I applied for a pre-lease of 1,920 acres for W. Purser, in virtue of his C.P. of 640 acres, No. 6-3-84, taken up on 6th March, and now measured. Will you try and get this pushed through for us, as it seems to me necessary that it should be granted before the end of the year."

5th August, 1885—Cheque on same bank, as deposit of 2s. per acre upon 1,920 acres of additional conditional purchased land (see cheque-butt No. 075,707), £192.

9th May, 1886—Cheque on same bank, annual instalment of the 640 acres of C.P. land (see cheque-butt, No. 075,815), £32.

4th May, 1887—Cheque on same bank, annual instalment of the 640 acres C.P. land (see cheque-butt No. 075,857), £32.

19th March, 1888—Document 720, P. Hann to Gore. :—" In thinking over Purser's land you are quite right to get the scrubbing squared off for measurement. I see there is an inquiry into Purser's and Austin's land comes on at the Land Office here on the 28th."

30th March, 1888—Document 726, P. Hann to Gore. :—" How does Purser's account stand in the station books ; overdrawn or in credit ? If in credit, this account of Austin's, if correct, could be paid from it ; if overdrawn I may be personally liable for it as administrator."

28th June, 1888—Document 746, P. Hann to Gore. :—" Send me in the (your) estimate of cost and improvements on Purser's original 640 acres. I thought with Purser's cultivation, cottage, scrubbing, &c., that the 10s. per acre was on it."

20th July, 1888—Document 750, P. Hann to Gore. :—" Purser's land, 640. What would be the best improvement to put on for the 4s. per acre required—clearing, or what ? Do you want yards there. The five years will be up next year."

17th July, 1888—Cheque on same bank. :—" Sixty-six acres adjoining deposit and balance," (see cheque-butt No. 112,134), £155 17s. 6d.

27th July, 1888—Cheque on same bank. "Annual instalment of the 640 acres C.P. land," (see cheque-butt No. 112,143), £32.

26th July, 1888—Document 751, P. Hann to Gore. :—" Purser's land must be improved before next March."

On searching the Registrar-General's Office I find in Book 394, No. 262, a letter of mortgage dated 25th July, 1888, Phineas Hann to Bank of New South Wales. :—" In consideration having granted to the firm of Swift and Hann a cash credit for £30,000 upon security of a bond, 22nd December, 1881, on 2,332 acres 2 roods C.P. 640 acres, W. Purser ; 6th March, 1884, section 13 A.C.P. 1,692 acres 2 roods, W. Purser ; 6th August, 1885, section 20.

NOTE.—There were 1,920 acres paid for at 2s. per acre, viz., £192, with 640. would be :—

2,560 acres
2,332 "
228 "

not accounted for, and probably is the C.P. sold by Hann to Leitch, of Berry Jerry.

No. 5 Dummy Selection.

Mathew Cody, Mimosa Station, Manager, a dummy selector of 640 acres of C. P. land.

The following extract particulars, compiled from original documents, show how the selection was taken up and arranged by Mr. Hann, viz. :—

M. Cody's salary account—see Station Ledger "N," folios 238, 31, 153, and 231, viz. :—

	£	s.	d.
21 June, 1881, to 15 November, 1881—21 weeks at 20s. per week .....	21	0	0
15 November, 1881, to 15 November, 1882—at £200 per annum .....	200	0	0
15 November, 1882, to 15 November, 1883 .....	200	0	0
15 November, 1883, to 1 October, 1884 .....	175	0	0
1 October, 1884, to 31 October, 1884 .....	16	13	4

5th March, 1883, see Book 9, page 239. Letter from P. Hann to M. Cody. :—" I fail to see your scruples or the principle involved in your taking a piece in your name for us. There is no law-breaking, no declaration, no oath, no conditions to fulfil—as we ask none, you do not promise any, and the Land Act does not ask any. It is simply a matter of wasting money for protecting what we consider our rights. After the selections are taken up they will become a forfeiture, as Gore's will be, and after spending a certain amount of money on them, as improvements, they cannot be selected, when forfeited, but must go to auction, and this may be five or six years hence. If I asked you to take up land with a view to fulfilling the conditions to make the required declaration, to give us a title then, I could readily see your reasons. The same applies to any other name that a piece may be taken in the name of. The land can only be allotted on personal application, and my object was to get those on the station to apply for us, as then they would be on the station until surveyed, and prepared to answer (if asked) any questions the surveyor may put at the time of survey. If the surveyor makes no adverse reports, then the land goes on its five years before forfeiture—at least that is my view of it. If he reports badly on it at the time of survey, I wanted you and some others on the station that we could trust, so that they could not turn round on us and jump our rights by sticking to the land after we had paid the money for it. Such things have been done to run-holders after they have put a lot of improvements on the ground, through their taking men they did not know enough of. We are going in with our eyes open, knowing what we are doing, i.e., wasting money ; but we do not want to be played fake with. There is no breaking of the law in taking up land, only when you try to retain possession and get a title by false statements, and there is no dummyming in what I have asked of you. Dummyming is when men are placed on the ground to hold and get a title ; the run-holders doing everything and paying these men for their time. If you could see the thing as I have shown it. I shall have to go in and take up 640 myself ; but this will be inclined to stir up outsiders, and bring others around us. In any case, I think it better for you to come in, bringing Halloran or whichever person you prefer, so that we can decide on what shall be done, and I shall then be prepared with Mr. Swift's views on

G. Sandell. on the matter. Be in as early as you can on Wednesday, so that the papers can be prepared and ready for prompt 10 on Thursday morning. I have just had a talk with Gore, and from what he says of Halloran and Frayne's views about land being in their names, they are not to be trusted. They would look upon themselves as the legitimate owners—want to live on it—fulfil its conditions, and then want paying off; but it is not nice to feel that you have to battle with men who are trying to rogue you."

16 Aug., 1899.

7th March, 1883, Book 31, page 130. P. Hann to Swift.—"I have Cody and Tom (Yourall) in, and will take up two pieces of land to-morrow, 320 in Cody's name in the middle paddock, and 640 in Thos. Yourall's name—studied the thing over—have no more names to use, and cannot see any way for properly securing the land without taking up these quantities. Cody seems to see the thing in its proper light now."

7th March, 1883.—Cheque drawn by P. Hann on Wagga Wagga Branch, Bank New South Wales, for C.P.'s on Mimosa, £240, deposit of 5s. per acre on 320 acres (see cheque No. 151285, being £80).

25th July, 1883, Book 31, page 259. P. Hann to Swift.—"We have sent in seven I.P.'s, in all 2,340 acres. The selections taken up are W. J. Gore 640, surveyed; Cody, 320; Yourall, 640; and Frayne, 320, not surveyed, can be put back if you think it advisable, and get deposit back."

4th August, 1883, Book 10, page 309. P. Hann to Cody.—"I am putting in your application for 320 on your prelease."

August, 1883. Clearing and burning off 207 acres (see Book "Q," page 44), £43 19s. 9d. Description of measurement of Cody's 320 acres (see Book "Q," page 112).

18th February, 1884, Book 31, page 227. P. Hann to Cody.—"Your selection has been set right, and we are asked to return the refund voucher."

8th March, 1884, Book 31, page 270. P. Hann to Swift.—"M. Cody, 320 acres. This could be increased to 640, or 320; can be applied for as an I.P. as soon as the prelease is granted; 940 acres prelease applied for."

7th April, 1884, Book 11, page 438. P. Hann to Cody.—"I have just had a letter refusing your I.P. application on account of voidance of the selection, but as the C.P. has now been put right this will also follow in due course."

7th April, 1884, Book 11, page 439. P. Hann to H. H. Brown & Co.—"Cody's C.P. having been made good will allow of the I.P. being also made so in due course. If it requires attention will you please do it and oblige!"

21st May, 1884, Book 12, page 53. P. Hann to Cody.—"I wanted you to do some grubbing at your I.P., so that you could ensure getting a larger area than you were talking about, as I wanted as large a block as we could get saved there."

25th July, 1884, Book 12, page 107. P. Hann to H. H. Brown & Co.—"Pleased to see that Cody's prelease is all right. Cheque £2 13s., in payment of your account."

2nd August, 1884, Book 12, page 116. P. Hann to Cody.—"I am putting in fresh applications for the I.P.'s now that your prelease has been restored."

5th August, 1884, Book 12, pages 120 and 122. P. Hann to Cody.—"I enclose particulars of two I.P.'s that I lodged in the Lands Office yesterday."

Copy of I.P. application for M. Cody on 4th August, 1884.—"160 acres, commencing at a tree marked J.B. 67 B., at the corner of the Yarrenjerry and Lower Mitchell Creek Run, with its intersection of the Mimosa Run; thence south 15 chains; thence east about 53 chains; thence north 30 chains; thence west about 53 chains; thence south 15 chains to the commencement point. Kangaroo Yards, £100; fencing, £30; ringing, scrubbing, &c., £30—total, £160."

14th August, 1884.—"Cheque drawn by P. Hann on Wagga Branch of Bank of New South Wales, deposit of 5s. per acre on 320 acres." Cheque butt No. 073, 170, £80.

August, 1884.—"Building hut on Cody's C.P. (see station ledger 'N,' folio 215), £8."

30th September, 1884 (part of).—"Cheque drawn on same bank for Cody's prelease (see cheque butt No. 72191), £3."

1st November, 1884.—"In consideration of £160 advanced by P. Hann to M. Cody, and in consideration of the said P. Hann making payments and erecting improvements, I agree that if called upon, &c., to execute a mortgage over said lands to secure the said P. Hann, &c. Witness, W. J. Gore, Mimosa West, book-keeper."

November 1st, 1884.—"Agreement to lease for ninety-nine years, from M. Cody to P. Hann, "all that piece or parcel of land, 320 acres, parish of Tara, county of Bourke, being land conditionally purchased by the said M. Cody at the Wagga Wagga Crown Lands Office, on the 14th day of August, 1884, &c." Entered in the Registrar-General's Book 298, No. 632, on 12th November, 1884, at 2 o'clock in the afternoon."

16th July, 1885, Book 12, page 444. P. Hann to H. H. Brown & Co.—"Your yesterday's favour to hand, and refund voucher for £80, which I shall forward to Cody for signature."

27th October, 1885, Book 16, page 48. P. H. to T. S. Gardner.—"I beg to hand you M. Cody's refund voucher on 320 acres, £80." Credited in bank pass-book, 19th November, 1885.

29th March, 1888, Document 725. P. Hann to Gore.—"As Yourall's and Cody's selections are forfeited, we have no claim over the improvements; if selections are forfeited we have no claim over the improvements if any one takes up the land. You had better remove them and then do up the men's huts that you speak of."

8th June, 1888, Document 743. P. Hann to Gore.—"Huts, Cody's, Yourall's, and Davis's selections, can be reselected, but pending the new Act I think these, with a great number of others on leaseholds, were temporarily withdrawn or reserved, and cannot be selected again until gazetted. You can take the huts from wherever you like best; the one on your selection cannot be of any use to the station, and as the certificate of condition has been given and transfer accepted, there cannot be any danger or loss there. The huts on Yourall's and Cody's may make selectors think the land has gone."

#### No. 6 Dummy Selection.

MARTIN BEHAN, a dummy selector of 640 acres of C.P. land.

The following extract particulars, compiled from original documents, will show how Mr. Hann arranged this dummy selections and evaded the provisions of the Crown Land Acts, viz:—

20th September, 1883.—Cheque drawn by P. Hann on Wagga Wagga Branch Bank of New South Wales, No. 071,852, for M. Behan's C.P., £160, being the deposit of 5s. per acre on 640 acres of C.P. land.

21st September, 1883, Book 31, page 375. P. Hann to Swift.—"I have taken up to-day the two that Cody saw a danger of—640 each—and two small mineral C.P.'s, 120 and 80 acres."

22nd September, 1883, Book 10, page 446. P. Hann to Cody.—"The Wagga paper will show you the four pieces of land taken up on Thursday—Mitchell, Hanson, Halloran, and Behan; mark them off on your map; it looks to me as if another 640 is wanted in north scrubby, west of Behan's, but I hardly see how to do it yet."

22nd September, 1883, Book 10, page 448. P. Hann to H. H. Brown & Co.—"I enclose particulars of five pieces of land taken in our interest on Mimosa, three of them being mineral C.P.'s and two C.P.'s 13th September. We do not expect to be able to fulfil the conditions of either, and prefer their running over the twelve months before survey, if it can be managed. We might have to take another 640 yet, near and west of Behan's. I send these particulars, as I thought you would like to mark them off, and to know they were in our interest. I intend, on Monday, taking preleases for Halloran, Behan, and Mitchell. &c."

24th September, 1883.—Cheque drawn by P. Hann on same Bank, "For prelease." No. of cheque 071860, £3.

21st December, 1883, Book 11, page 116. To Under Secretary for Lands:—"In reply to your letter of 17th November (L.A. 83-174), I now beg to enclose a rough sketch showing the position of my conditional purchase, and trusting the particulars given are sufficient for allotting my prelease.—Your obedient servant, MARTIN BEHAN, per his agent, P. Hann." 1884—Building hut on Behan's C.P. (see station ledger "N," folio 215, £9 5s.)

15th September, 1884, Book 12, page 171. P. Hann to H. H. Brown & Co.—"The surveyor is at Mimosa, and I have been thinking over the advisability of trying to get a refund of Behan's and Halloran's deposit."

7th October, 1884, Book 12, page 195. P. Hann to H. H. Brown & Co.—"Behan is here; can you make application, as their agent, for the refund, or must they personally sign the applications? If they have to apply, will you send forward one for Behan, and I will get it signed?"

8th October, 1884, Book 12, page 193. P. Hann to Cody.—"Has Garland surveyed Behan's and Halloran's selections? I am trying to get a refund of the deposit money granted before his report goes in."

18th December, 1884, cheque drawn by P. Hann on same Bank; No. cheque-butt, 072225:—For deposit of 10s. per acre upon 50 acres of M.C.P., £25.

22nd December, 1884, Book 12, page 285. P. Hann to H. H. Brown & Co.—"Enclosed please find one of the refund vouchers, signed by M. Behan, for £160,

24th December, 1884—Cheque drawn by Hann on same Bank; cheque-butt No. 072227; present to Behan, £5.  
 10th February, 1885, book 12, page 324. P. Hann to H. H. Brown & Co. :—"Your favour, with cheque £390 sterling, refunds D. Halloran, M. Behan, and F. Frayne." Behan's amount thereof, £156. Amount credited in pass-book on 9th February, 1885, in item £390. G. Sandell.  
16 Aug., 1899.  
 23rd June, 1885, book 12, page 421. P. Hann to S. Payne :—"Refund for Behan's prelease, £3."  
 16th July, 1885, book 12, page 444. P. Hann to H. H. Brown & Co. :—"Behan's refund voucher, £3, I have."  
 29th October, 1885, book 16, page 48. Hann to Gardiner, manager, Wagga branch Bank of New South Wales :—"I beg to hand you refund voucher."  
 31 August, 1886. Cheque drawn by P. Hann on same Bank; see cheque-butt, No. 075789.—"Present on account of refund, £2."

## No. 7 Dummy Selection.

THOMAS YOURALL, a station employee, dummy selector of 640 acres of C.P. land.

Tom Yourall's salary account, see station ledger "N," folios 238, 40, 129, and 197, viz. :—

5th March, 1883, to 22nd May, 1883—11 weeks 1 day, at 20s. per week, £11 3s. 4d.  
 22nd May, 1883, to 17th May, 1884—25 " 5 days, " £25 16s. 8d.  
 17th November, 1883, to 22nd May, 1884—26 weeks 4 days, at 20s. per week, £26 13s. 4d.  
 22nd May, 1884, to 18th October, 1884—21 weeks 3 days, at 20s. per week, £21 10s.  
 18th October, 1884, to 15th November, 1884—4 weeks at 20s. per week, £4.

The following extract particulars, compiled from original documents, will show how Mr. Hann arranged this dummy selection, and evaded the provisions of the Crown Lands Act, viz. :—

7th March, 1883, book 31, page 130. P. Hann to Swift :—"I have Cody and Tom (Yourall) in, and will take up the two pieces of land to-morrow—320 in Cody's name in the middle paddock, and 640 in Thos. Yourall's name. Studied the thing over. Have no more names to use, and cannot see my way for properly securing the land without taking up these quantities."

8th March, 1883 (part of)—Cheque drawn by Mr. Hann on the Wagga Wagga branch of the Bank of New South Wales, for deposit of 5s. per acre on 640 acres, £160.

8th March, 1883, book 31, page 132. P. Hann to Swift :—"We got the land matter through to-day, and although the men did not offer any opposition, still it may be as well taking it up. Tom will sign the lease, and I will apply for prelease."

Cheque, No. 151288, drawn by Hann on same Bank, for prelease, £6. Lease for ninety-nine years from T. Yourall to Swift and Hann (see original document.)

15th March, 1883, book 31, page 136. P. Hann to Swift :—"Yourall's lease enclosed; sign it, and return. They hardly left enough room for you, and put your seal below mine."

25th July, 1883—Book 31, page 259, P. Hann to Swift :—"The selections taken are, to Gore, 640, surveyed; Cody, 320; Yourall's, 640; Frayne's, 320, not surveyed. Can be put back if you think it advisable, and get deposit back."

27th July, 1883—Book 31, page 270, P. Hann to Swift, preleases applied for :—

9th March, Thos. Yourall.....	1,920 acres
9th " " M. Cody.....	960 "
15th June, Thos. Frayne.....	960 "

22nd September, 1883—Book 10, page 448, P. Hann to H. H. Brown & Co. :—"I enclose particulars of five pieces of land taken in our interest on Mimosa, three of them being mineral C.P.'s and two C.P.'s, 13 sec. We do not expect to be able to fulfil the conditions of either, and prefer their running over the 12th instant before survey, if it can be managed. We might have to take another 640; got near and west of Behans. I send these particulars, as I thought you would like to mark them off, and to know they were in our interest, &c. Are you urging forward Yourall's and Frayne's preleases? Please do so."

Measurement of Yourall's 640 acres of C.P. land, see station book Q, page 112. August, 1884—"Building hut on T. Yourall's C.P. See station ledger N, folio 207, £7 10s.

21st May, 1886—Book 16, page 114, P. Hann to S. Payne, Mimosa Station manager :—"I have a letter from Yourall which I enclose, and a copy of my reply to it. You will understand all by this. Of course, it would be a good thing to have the ground, but I don't want to make two other payments on it and then lose it. Yourall has no place of residence; but whether that would stand good or not for his declaration I do not know."

21st May, 1886—Book 16, page 116, P. Hann to Yourall :—"The only thing that can be done with your land is making the declaration of residence, &c., and trying to get it pushed through at the end of five years (two years more); but then you may not care for doing it. Of course, it would be a good thing for us to get the land at the end of the time—after the three years' declaration is made; then we should have to go on paying the 1s. per year on it, and I should not like to lose it after paying for the two years', or, perhaps, three payments."

29th March, 1888—Document 725, P. Hann to Gore :—"As Yourall's and Cody's selections are forfeited, we have no claim over the improvements if anyone takes the lands. You had better remove them, and then do up the men's huts you speak about."

## No. 8 Dummy Selection.

THOMAS FRAYNE, a station employee, dummy selector of 320 acres C.P. land.

Thomas Frayne's salary account; see station ledger N, folio 119, viz. :—

23rd February, 1883, to 17th November, 1883—35 weeks at 20s. per week, £35.  
 17th November, 1883, to 29th November, 1883—2 weeks at 20s. per week, £2.

The following extract, particulars compiled from original documents, will show how Mr. Hann arranged this dummy selection, and so evaded the provision of the Crown Lands Act :—

10th March, 1883—Book 9, page 358. Extract from P. Hann's letter to M. Cody :—"I have just heard of a d—d scoundrel that is taking up the block No. 12, in the wether paddock. I wish you would look it over, and see if there is any other improvement on it than the ringing; if there is we can save it; if not, we shall have to protect it. Let me know by return. Perhaps it would be as well to send in the young fellow, Tom Frayne, as I think I could trust him, and could take a lease, the same as we did from Yourall."

10th May, 1883—Book 10, pages 43 and 44, P. Hann to Cody, the then manager of Mimosa West Station :—"The land can only be secured by selection, and we have not people enough to do it with; but as soon as I find their lands surveyed, and I can get proper descriptions, I mean them to use Frayne and some others, and adjoin their boundaries to cut them off from getting their prelease land."

26th May, 1883—Book 10, page 68, P. Hann to Cody :—"If these selectors are about over the run, and you think some of it going, send in T. Frayne, so that I can take a strip in his name."

6th June, 1883—Book 10, page 100, P. Hann to Cody :—"Send Frayne in next Saturday, and I will take up 320 acres."

13th June, 1883—Book 31, page 221, P. Hann to Swift :—"I shall take up 320 acres to-morrow in one of our men's name, so as to spoil and cut off the selectors."

14th June, 1883—Cheque No. 150130 (see document 683), drawn by P. Hann on Wagga Wagga Branch, Bank of New South Wales. Thos. Frayne's C.P. deposit of 5s. per acre on 320 acres of C.P. land, £80.

14th June, 1883—Cheque No. 150132 (see document 683a), drawn by P. Hann on same bank for T. Frayne's pre-lease, cashed on 18th June, 1884, £3.

15th June, 1883—Book 10, page 130, P. Hann to Cody :—"This morning I took up 320 acres in Frayne's name, and send a tracing showing where all the land is started."

15th June, 1883—Thos. Frayne to Swift and Hann :—"I hereby agree that any moneys advanced to me by Swift and Hann are to be deducted and retained by them out of the rent payable by them to me for the land I conditionally purchased on the 14th June, 1883, and the land I prelease by virtue of such conditional purchase, and which lands I have leased to them."

16 June, 1883—See original agreement to lease for ninety-nine years, from T. Frayne to Swift and Hann :—"All that piece or parcel of land containing by admeasurement 320 acres, &c., being the land conditionally purchased by the said Thos. Frayne at Wagga Wagga Lands Office, on 14th day of June, 1883."

Entered in the Registrar-General's Office, 9th day of July, 1883, ten minutes past 11 o'clock in the forenoon (*vide* Registrar-General's book 272, No. 177). 2nd

G. Sandell.  
16 Aug., 1889.

2nd August, 1883—Book 10, page 298, P. Hann to Cody :—"If there was much chance of his (Fisher) being able to get west, then we would have to take 320 more for Frayne. I was leaving this an open matter, just to see whether we wanted Frayne to go east or west of his 320."

28th November, 1883—Book 11, page 82, P. Hann to Cody :—"From what you say, perhaps it would be as well to take up Frayne's extra 320 acres, and if you think it advisable to send Frayne in, do so."

1st July, 1884—Book 12, page 79b, P. Hann to Frayne :—"I find the surveyors are coming in a few days to commence measuring the block on Mimosa. If you are not doing anything just now, you might come up and be working, and living on the selection that I took up in your name; and then, after the survey is over, you can lease it again and return home if you want to. Your residing on the ground while the surveyor is there will pass the land, so that it will be nearly three years after that before the land is forfeited. I will pay your expenses up and back, and pay your wages while at the station."

18th July, 1884—Book 12, page 97, P. Hann to Cody :—"Frayne's land." Try and get it surveyed the way we want it, but you must not say to Garland that it is our man and our selection."

August, 1884—Building hut on Frayne's C.P. (see station ledger "N," folio 215)—£10.

3rd September, 1884—Book 12, page 145, P. Hann to Cody :—"Frayne's and Gore's selections are measured just as I want."

13th December, 1884—Book 12, page 275, P. Hann to H. H. Brown & Co. :—"If you will supply me with the form of authority necessary for each—Behan, Halloran, and Frayne—to sign for refunds, I will send these to them, so that they may be returned, and you can collect for us."

13th December, 1884—Book 12, page 276, P. Hann to Frayne :—"I find that I shall be able to get the money back for your selection, as it was not surveyed in time; and, if I can do so, I shall want you to sign the necessary forms authorising us to get the money. Will you do so for me? Let me have your reply, and then I shall know what to do. It is better for me to get the money than have the selection forfeited, and then not able to get the money afterwards."

15th January, 1885—Book 12, page 303, P. Hann to Frayne :—"I always intended giving you a cheque for £5 for doing this, but I cannot send it to you now, nor until I have the order in the agent's hands in Sydney, so that he may be satisfied the money will be paid on it."

23rd January, 1885—Book 12, page 311, P. Hann to H. H. Brown & Co. :—"I have at last got Thos. Frayne's signature to the refund voucher. Found him at Majorca, Victoria. I have promised the fellow £5, and he expects it by return."

23rd January, 1885—Book 12, page 312, P. Hann to Frayne :—"You have not signed the voucher in your usual style of writing."

9th February, 1885—Cheque—butt No. 072,249, drawn by P. Hann "on same Bank, for signing refund voucher," £5.

9th February, 1885—Book 12, page 323, P. Hann to Frayne :—"I have now got the refund from Sydney, and enclose you a cheque, £5."

10th February, 1885—Book 12, page 324, P. Hann to H. H. Brown & Co. :—"Refund £78 (being part of cheque £390, credited in Bank of New South Wales; pass-book on 9th February, 1885). Your favour of the 7th duly reached me with cheque £390 sterling, covering the refund on D. Halloran's, M. Behan's, and T. Frayne's C.P.'s, for which accept my thanks."

23rd June, 1885—Book 12, page 421, P. Hann to S. Payne :—"Refund of prelease, £3 received. (Note, this amount is credited the Bank pass-book under date of 4th November, 1885.)"

22nd July, 1885—Book 12, page 449, P. Hann to H. H. Brown & Co. :—"As Frayne's C.P. was withdrawn at his own request, it has removed the obstacle to his prelease, and that being improved does not bar it being given to him, &c. It makes me regret withdrawing Frayne's C.P."

#### No. 9 Dummy Selection.

D. HALLORAN, a drover, in the employ of the Station, a dummy selector of 640 acres of C.P. land.

The following extract particulars, compiled from original documents, will show how Mr. Hann arranged this dummy selection, and evaded the provisions of the Crown Lands Acts, viz. :—

18th September, 1883—Book 31, page 365, Hann to Swift :—"D. Halloran.—I squared up accounts with him yesterday, and enclose the one for the Oakwoods', showing £400 0s. 3d. charged to you. He sent his plant on. Promised to take up 640 for us on Thursday."

20th September, 1883—Cheque drawn by P. Hann on Wagga Wagga Branch of Bank of New South Wales. Cheque No. 071,851 for D. Halloran's C.P., £160, being the deposit of 5s. per acre upon 640 acres of C.P. land."

22nd September, 1883—Book 10, page 446, P. Hann to Cody :—"The Wagga paper will show you the four pieces of land taken up on Thursday—Mitchell's, Hanson's, Halloran's, and Behan's. Mark them off on your map. It looks to me as if another 640 is wanted in north scrubby, west of Behan's hut. I hardly see how to do it yet."

22nd September, 1883—Book 10, page 448, P. Hann to H. H. Brown & Co. :—"I enclose particulars of five pieces of land taken in our interest on Mimosa, three of them being mineral C.P.'s and two C.P.'s, 13th sec. We do not expect to be able to fulfil the conditions of either, and prefer their running over twelve months before survey if it can be managed. We might have to take another 640 yet, near and west of Behan's. I send these particulars, as I thought you would like to mark them off, and to know they were in our interest. I intend on Monday taking preleases for Halloran's, Behan's, and Mitchell's."

24th September—Cheque, No. 071859—Drawn by P. Hann on same bank—"For D. Halloran, prelease, £3."

21st December, 1883—Book 11, page 115, P. Hann to the Under Secretary for Lands :—"In reply to your letter of the 17th, No. L.A. 83-175, I now beg to enclose a rough sketch from the office map, here showing the position of my conditional purchase, as started from marked tree, &c. Trusting the particulars given are sufficient for allotting my prelease.—Your obedient servant, D. Halloran (per his agent), P. Hann."

July—August, 1884—Building hut on Halloran's C.P. (see station ledger "N," folio 219)—£8 10s.

15th September, 1884—Book 12, page 171, P. Hann to H. H. Brown & Co. :—"The surveyor is at Mimosa, and I have been thinking over the advisability of trying to get a refund of Behan's and Halloran's deposits."

7th October, 1884—Book 12, page 195, P. Hann to H. H. Brown & Co. :—"Halloran is still in South Australia, and may not be back now for one or two months, as the Department refused the prelease for Behan's and Halloran's until the C.P.'s were measured."

8th October, 1884—Book 12, page 198, P. Hann to Cody :—"Has Garland surveyed Behan's and D. Halloran's selections? I am trying to get a refund of the deposit money granted before his report goes in. Of course, he must report non-residence, or perhaps report nothing at all."

13th December, 1884—Book 12, page 275, P. Hann to H. H. Brown & Co. :—"If you will supply me with the form of authority necessary for each—Behan, Halloran, and Frayne—to sign for the refunds, I will send these to them so that they may be returned, and you collect for us. Halloran is on the road with sheep."

5th January, 1885—Book 12, page 238, P. Hann to H. H. Brown & Co. :—"Enclosed I now hand you D. Halloran's refund voucher for £160, signed at Forbes, which please collect and remit with M. Behan's. I fear it will be some time before I can get at Frayne's, as I cannot find out his whereabouts yet."

10th February, 1885—Book 12, page 324, P. Hann to H. H. Brown & Co. :—"Your favour of the 7th duly reached me with cheque £390, covering the refunds on D. Halloran's, Behan's and Frayne's C.P.'s. Halloran's amount thereof, £156. Credit in Bank pass-book on 9th February, 1885."

23rd June, 1885—Book 12, page 421, P. Hann to S. Payne :—"Refund voucher, I have one for D. Halloran."

29th October, 1885—Book 16, page 48, P. Hann to T. S. Gardiner, manager, Wagga Wagga Branch Bank New South Wales :—"Enclosed, I beg to hand you three refund vouchers, which please collect and credit the account D. Halloran, £3." Credited in the Bank pass-book, 4th November, 1885.

#### No. 10 Dummy Selection.

JOE ELLIOTT, a station employee, a drover, dummy selector; took up 320 acres of C. P. land on Mimosa West.

The following extracts of original documents will show how Mr. Hann evaded the provisions of the Crown Lands Acts :—

18th July, 1884—Book 12, page 97—P. Hann to Cody :—"Elliott will leave here on Monday; is a good working-man, and will help in putting up the house on his own place. I shall give him a horse to ride out on, and you will have to regulate his time for staying three or four weeks, according to what there is to do, and Mr. Garland surveys."

23rd July, 1884, Book 12, page 105. P. Hann to Cody, Station Manager.—“As Elliott it idle just now he would rather go out at once. I therefore send him out. Get him at work on his ground, so that we get the value of his wages. I saw Mr. Bolton about Mr. Garland not having instructions, and he says that the land being taken there that he can, in anticipation of getting instructions, survey for the selectors—it depends entirely on himself. I have explained it to Elliott and send you certified copies of the application, so that Mr. Garland can be sure he has true particulars. Elliott and Orr will each have to ask him to survey for them, and you press him to do it. We want to see if Mr. Fisher has a pre-lease. Elliott has arranged to get £10 for a month and will do what you want of him—lamb mark or anything else.”

26th July, 1884 (see original document).—“In consideration of £80 advanced to me, Job Elliott, by Phineas Hann, etc.; also in consideration of the said Phineas Hann making payments and erecting the improvements provided for, &c., I hereby charge the lands, &c., and if called upon to do, I will execute a mortgage with the usual provisions to the said P. Hann.”

26th July, 1884.—Agreement to lease for 99 years. From Job Elliott to Phineas Hann.—“All that piece or parcel of land containing by admeasurement 420 acres, parish of Birigambil, county of Bourke, being the land conditionally purchased by the said Job Elliott at the Wagga Wagga Crown Lands Office, on 5th day of June, 1884. Entered in the Registrar-General's book 292, No. 948, twenty-five minutes past 2 o'clock, 1st August, 1884.”

August, 1884.—Building hut on Job Elliott's C.P. See Station Ledgers “N,” folio 207, and “Q,” folio 45. £8 10s.

26th August, 1884, Book 12, page 137. P. Hann to Cody.—“I have arranged with Elliott to take up a 40-acre M.C.P. on Thursday, and will send you a certified copy of it.”

28th August, 1884. Cheque drawn by P. Hann on Wagga Branch Bank of New South Wales; cheque butt No. 072174; deposit on 40 acres M.C.P., £20.

4th February, 1885. Cheque drawn by P. Hann on same bank “for time on selection.” See cheque butt No. 072248. £4 18s.

17th June, 1885.—Cheque drawn by P. Hann on same bank, “for Mimosa account.” See cheque butt No. 072279, £5.  
17th April, 1886, Book 16, page 102. P. Hann to S. Payne.—“Elliott's C.P. is forfeited.”

#### No. 11 Dummy Selection.

M. H. DAVIES, dummy selector of 400 acres of C.P. land.

8th August, 1883—Cheque drawn by P. Hann on Wagga Wagga branch of Bank of New South Wales as deposit of 5s. per acre on 400 acres, £100.

7th March, 1884, Book 11, page 272. P. Hann to B. C. Garland.—“Mr. M. H. Davies has forwarded to me his consent to the increased area of his ground, and I now beg to enclose same to you.”

August, 1884—Building hut on Mr. Davies's C.P. (see Station ledger “N,” folio 219), £8 10s.

18th September, 1886, Book 16, page 167. P. Hann to H. H. Brown & Co.—“I enclose a C.P. notice 83-464, and if anything can be done with it, I can find Mr. M. H. Davies, and get the necessary document signed.”

#### No. 12 Dummy Selection.

J. HANSON, a drover, dummy selector of 120 acres of M.C.P. land.

The following particulars, compiled from original documents, will show how Mr. Hann evaded the provisions of the Crown Land Acts, viz. :—

19th September, 1883, Book 10, page 441. P. Hann to Cody, manager of Mimosa Station.—“I am going to take up some selections to-morrow, and will send you particulars.”

20th September, 1883, (See document 687). Cheque No. 071833, drawn by P. Hann on Wagga Wagga branch Bank of New South Wales, “for Jos. Hanson, M.C.P., £60, deposit of 10s. per acre.”

20th September, 1883, (See document 688). Cheque No. 071855, drawn by P. Hann on same bank. Balance-(of droving) £19 16s. 10d.

22nd September, 1883, Book 10, page 446. P. Hann to Cody.—“The Wagga paper will show you the four pieces of land taken up on Thursday—Mitchell, Hanson, and Behan. Mark them off on your map. It looks to me as if another 640 is wanted in North Scrubby, west of Behan's; but I hardly see how to do it yet.”

6th March, 1884, Book 11, page 265. P. Hann to Cody.—“Will just take in about half of the Mineral C.P. of 120 acres that I took for Hanson.”

#### No. 13 Dummy Selection.

W. O. MITCHELL, a dummy selector of 80 acres of Mineral C.P. land.

The following particulars, compiled from original documents, will show how this was arranged by P. Hann :—

19th September, 1883, Book 10, page 441. P. Hann to Cody, (See Hanson, No. 12 Dummy Selection. Extract same date).

20th September, 1883. (See document 694, cheque-butt No. 071854). Cheque drawn by P. Hann on Wagga Wagga branch Bank of New South Wales for C.P., Mimosa, being deposit of 10s. per acre on 80 acres of M.C.P., £40.

22nd September, 1883, Book 10, page 446. P. Hann to Cody, (See Hanson, No. 12 Dummy Selection. Extract same date).

#### No. 14. W. Drover's selection.

The following payments made by cheques drawn by P. Hann, on Wagga Wagga Branch, Bank New South Wales, viz. :—

16th March, 1886—Cheque-butt No. 675772 :—For purchase of lease of selection—£100.

24th September, 1886—Cheque-butt No. 075794 :—For first payment on account of selection—£50.

22nd November, 1886—Cheque-butt No. 075807 :—For Fitzhardinge and Coleman—Drover's agreement—£5 5s.

19th March, 1887—Cheque-butt No. 075847 :—For second payment on account selection—£50.

19th April, 1887—Cheque-butt No. 075851 :—For 900 acres (448½ and 451½)—£45.

2nd May, 1887—Cheque-butt No. 075855 :—On account ring-barking, declaration on his 320 acres—£16.

28th September, 1887—Cheque-butt No. 075880 :—For third payment on account selection—£50.

20th March, 1888—Cheque-butt No. 112115 :—For half-year's payment—£50.

23rd March, 1888—Cheque-butt No. 112116 :—Instalment on 1,220 acres C.P.—£61.

19th September, 1888—Cheque-butt No. 112164 :—For half-year's payments—£50.

16th February, 1889—Cheque-butt No. 112176 :—On account of purchase—£20.

20th March, 1889—Cheque-butt No. 112177 :—On account of purchase—£8.

25th March, 1889—Cheque-butt No. 112178 :—On account of purchase—£20.

25th March, 1889—Cheque-butt No. 112179 :—On account of purchase—£30.

4th July, 1889—Cheque-butt No. 112180 :—On account of purchase—£10.

23rd March, 1888—Document 721, P. Hann to Gore :—“I have seen Drover this morning, but as Mimosa matters are in an unsettled state and likely to be for some time, I could not do anything about the land, and we must only go on using it as if we intended keeping it.”

29th March, 1888.—Document 725, P. Hann to Gore :—“If there is work for Drover, and you can profitably employ him you can do so, but we cannot find special work for him.”

10th April, 1888.—Document 728, P. Hann to Gore :—“Drover thinks he has enough improvements on to pass, and that Milligan said as much. If this is right, then we shall have to do anything else required, but if the fencing we do has to make up the necessary value of his improvements for passing the land, then he has to allow us for doing it. He has to get the land passed for us.”

23rd August, 1888.—Document 755, P. Hann to Gore :—“Your suggestion may be a good one. I don't want to forfeit or lose what has been paid, and would like to carry the transaction through with them. You had better employ him in that way for beneficial and good improvements to his land.”









## ON ESTATE OF THE LATE S. M. SWIFT, OF PETERSHAM.

## No. 20.

G. Sandell.

Henry Adams, selection 75-S2—See Station Ledger, folio 276, selection under 1861 Act:—		£	s.	d.
5th August, 1875.—By deposit of 25 per cent. on 320 acres, at 20s. . . . .		80	0	0
27th " 1878.—Payment on — interest to 31st August . . . . .		4	11	5
19th September, 1878.—Deposit 25 per cent. on 331 acres A.C.P. . . . .		82	15	0
27th March, 1879.—Payment of interest on original 320 acres . . . . .		12	0	0
30th " 1880.— " " for 1880 on 320 acres . . . . .		15	0	0
14th October, 1880.—Deposit of 25 per cent. on 120 acres . . . . .		30	0	0
28th March, 1881.—Payment of interest for 1881 on 309 acres. . . . .		11	11	9
28th " 1882.— " " 1882 . . . . .		11	11	9
27th " 1883.— " " 1883 . . . . .		11	11	9
		£259 10 8		

16 Aug., 1899.

This selection was transferred (see Registrar-General's Book 490, No. 143, 28th April, 1892) by John McDonald to the A.M.L. and F. Co., Ltd.

Not included in probate valuation.

## No. 21.

W. Emmett—See Station Ledger, folio 684, boundary rider:—

30th November, 1884.—By wages, 6 weeks to date, £10.

31st May, 1885.—By 6 months wages to date, £10.

1st September, 1885.—By 3 months wages to date, £5.

1st December, 1885.—By 3 " " £5.

1st March, 1886.—By 3 " " £5.

1st June, 1886.—By 3 " " £5.

1st September, 1886.—By 3 " " £5.

1st December, 1886.—By 3 " " £5.

W. Emmett's 640 acres of C.P. selection, No. 83-112—An employee in receipt of wages of £20 per annum, taking up a selection of 640 acres.

This selection was transferred (see Registrar-General's Book 490, No. 143, 28th April, 1892) by John McDonald to the A.M.L. and F. Co., Ltd.

Not included in probate valuation.

## No. 22.

T. Warren—Selection 76-103 and 77-12, Station Ledger, folio 543, 7th March, 1883:—"To stamp duty cost of transferring C.P. cheque to Jones and Sons, S. C. Brown's costs, J. Warren's account (568 acres of C.P. land), £1,432 9s. 6d."

This selection was transferred (see Registrar-General's Book 490, No. 143) by John McDonald to the A.M.L. and F. Co., Ltd., 28th April, 1892.

Not included in probate valuation.

3. *Mr. McFarlane.*] Have you got these particulars since you were examined before the Committee on a previous occasion? Yes; the further accounts about the concealed assets and the under-valuation of the estate.

4. What are the concealed assets made up of? Under-valuation of the wool, which was omitted from the statement which Mr. Hann prepared for probate. The lands which were concealed in the application for probate, and a large quantity of cattle, sheep, and general property, which was not disclosed in the application for probate.

5. Do the accounts show that these were really the property of the late Mr. Swift? There is not the slightest doubt, in my mind, that the whole of the property that I referred to there as concealed assets were the assets of the estate.

6. Can you give any explanation how these were omitted;—would the executors have a knowledge of their existence? Mr. Hann must have had a full and complete knowledge of everyone of these items. Mr. Hann in his own letters said, "I am not going to put this wool into the probate at all." Prior to the testator's death he must have had a perfect knowledge of the land, because he makes a schedule of them, and he omits them in his probate account.

7. Have you the documents showing that? I have Mr. Hann's original letters, and also his press-copy letters. I have something like 5,000 odd letters from Mr. Hann which refer to the subject.

8. Does your statement show the amount of concealed assets? They total £190,000.

9. Is that including wool, land, and under-valuation? Yes; book debts, bills receivable, credit balances, which the executors put in their filed accounts as debit balances.

10. *Chairman.*] There is some evidence at pages 22 and 23 with reference to John McDonald;—I believe you have put in some evidence with reference to him? Yes.

11. When Mr. McDonald was before the Committee, we questioned him about his relations with Mr. Swift, and whether he was ever in Mr. Swift's employ, and whether Mr. Swift or himself, or a third person, put the money into the business. Mr. McDonald told us that he put the money into the business, and that he was a partner in this firm;—is there anything in the evidence, or have you any other evidence to offer with reference to the transactions of Mr. McDonald and Mr. Swift? I have, but at the present moment I have not fully prepared that portion. I am now preparing it. I have sufficient evidence to say to your Committee at the present moment that on the formation of a partnership, when Mungibundi Station was purchased, Mr. McDonald was never in a position to pay a single penny towards the partnership. I have sufficient evidence, after an examination of Mr. McDonald's banking accounts from the year 1870, to say that Mr. McDonald's banking account was always in debit, and that Mr. Swift, the testator, passed his cheque to his credit, and even the debit interest on Mr. McDonald's account was provided by Mr. Swift.

12. I suppose you have read Mr. McDonald's reply to all these allegations, namely, that it was a joint account, and that it was drawn on by them conjointly, and that the estate had a large overdraft at the Bank? Yes; I read the whole of his evidence. At the very time McDonald was supposed to enter into this partnership he borrowed from one of the intending partners £105. He gave to that intending partner, Mr. Spiller, a bill for £105. That was on the 13th February, 1874. At its maturity on the 18th May, his banking account was unable to meet it, and the testator provided the funds and took up that promissory-note of Mr. John McDonald's. Mr. Spiller, who held that promissory-note, endorsed it "without recourse," and handed that to Mr. Swift. I have the promissory-note now.

13. Was Mungie Bundic part of the estate? Yes.

14. Do you remember whether the Bank held a lien on it at the time of Swift's death? Yes; the Union Bank of Australia had.

15. To what amount? £55,000.

16.

- G. Sandell. 16. Was the estate ever released as far as the testator was concerned? There is a supposed partnership, I have seen a certified copy of the partnership in which Spiller, McDonald, and Swift were joint partners, but it does not state how much each partner placed there. There is an article in the partnership which states that in the event of the death of either of the partners the estate should be placed at auction. That was never done. The station was continued for some years. The Union Bank of Australia sold, but under what conditions I am unable to trace.
- 15 Aug., 1899. 17. Have you any idea as to how McDonald came to be the owner of Mungie Bundie? The transactions after the testator's death are very curious. It is transferred from one individual to another, and then re-transferred. At the present time Mr. McDonald is the reputed owner.
18. Do you think any good purpose would be served by calling Mr. McDonald? I think he should be called.
19. *Mr. McLean.*] You say that the station at present stands in the name of McDonald? Yes.
20. Can you give us information as to the party or parties from whom it was last transferred to McDonald? Yes; I have searched the whole of the Registrar-General's books, and I have all the particulars of the transfers from the time of Swift's death up to the present, but I have not got them with me.

TUESDAY, 22 AUGUST, 1899.

Present:—

MR. THOMAS, | MR. McFARLANE.  
W. M. HUGHES, ESQ., IN THE CHAIR.

George Sandell re-examined:—

- G. Sandell. 21. *Mr. McFarlane.*] In your former examination you mentioned various conditional purchases in the name of C. Donaldson, Potts, Wyndham, Jurd, Watts, Adams, Emmett, and Warren? Yes.
- 22 Aug., 1899. 22. In your report you say that these should be assets of the estate? Yes.
23. What evidence have you to show that they should be assets? I have the station ledger of Mungie-bundie regarding every one of these payments mentioned at page 16, amounting to £3,151 12s. 2d.
24. Does that prove that they were taken on behalf of the station? Mr. McDonald puts in his ledger account under the lands account these items as cash which had been paid away from the station funds to acquire these original selections.
25. How were these selections taken up in the first instance? Nos. 15 to 22 were taken up in the interests of the station, especially Donaldson's, at the instigation of Mr. McDonald.
26. Take the first one—Donaldson's;—have you anything to substantiate the statement that he was authorised to take that up on behalf of the station? If you refer to page 24 of the evidence, you will see that I there set out the whole of the particulars taken from the station ledger at that particular time.
27. What is there to show, on page 24, that the station advanced him the money? I have the original receipt of the 10th February, given by the Crown Lands Agent for the deposit of 5s. per acre, amounting to £160. That item is on page 25.
28. Is that debited to the lands account in the station ledger? Yes.
29. Have you anything to show what Donaldson was before he took up the selection? In the station ledger there is an account at folio 13, of Charles Donaldson, boundary rider. He was engaged on the station previous to taking up the selection. That account opens on 1st January, 1879.
30. Have you anything to show that he was authorised by McDonald, or by any other person in connection with the station, to take up this land? It was debited to the lands account, and not to Donaldson.
31. You have stated that Donaldson had a folio in the station ledger? Yes.
32. Does this payment of £160 appear in his folio in the station ledger? No.
33. Have you anything to show what happened after this selection was taken by Donaldson to bear out the construction that it was taken on behalf of the station? On the 13th August, 1885, Mr. Donaldson took up an additional conditional purchase of 1,905 acres 2 roods, and 2s. per acre deposit was paid, amounting to £190 11s. That also is debited to the lands account in the station ledger, and not to Donaldson. Furthermore, that additional conditional purchase was contested before the Land Board in October, 1885. It came before the Land Board for inquiry, and a man named Carrigan was the contestant.
34. On what ground was it contested? On the ground that the land was not taken up in the interests of Donaldson.
35. In other words, that he was a dummy? Yes.
36. Did Donaldson put in a defence? Yes; Donaldson's case was defended by Mr. T. G. Vynor, of Moree. He appeared in the case on behalf of Donaldson.
37. What was the result of that inquiry? The conditional purchase and additional conditional purchase were both upheld.
38. Did any of the owners of the station give evidence? Yes; Mr. John McDonald gave evidence. I have a certified copy of his statutory declaration, on 11th November, 1885.
39. Was he a witness on behalf of Donaldson? Yes.
40. What was the nature of his evidence? That Donaldson had never been engaged permanently on the station, that McDonald never had any interest in the conditional purchase or the additional conditional purchase for which Donaldson was then applying, and that it was not taken up in the interests of the station.
41. Notwithstanding that, you find that the exact amount necessary for taking up both portions was advanced by the station, charged to station account, and not debited to Donaldson? Yes; it was debited to the lands account, and all the annual instalments on the original conditional purchase were provided by station funds, and debited to lands account.
42. Have you anything else to show that the station had an interest in the land? Yes; I have the original bill of costs from Mr. Vynor. That bill of costs was made out against McDonald & Co., and was paid by Mr. McDonald. I have proof of all the cheques paid from the station to Mr. Vynor.
43. After this inquiry took place, and after the costs were settled, have you anything to show that Donaldson conveyed the selection after having carried out the conditions? He carried out the conditions, and transferred the additional conditional purchase and the conditional purchase to Mr. McDonald.

44. On the transfer to McDonald, what was the amount of consideration given for the transfer? There is nothing in the station's ledger further than a £50 bonus paid to Donaldson, and that is in the handwriting of Mr. McDonald.
45. Was that after the residence and conditions were complied with, immediately before the transfer? Yes. That was in August, 1885—that would be the five years.
46. After this transfer had taken place from Donaldson to McDonald, did McDonald continue to hold the selection? I have no proof of that.
47. Was the land transferred after Mr. Swift's death or before? After.
48. Then your contention is that, seeing that the station advanced all the money in connection with this selection held by Donaldson, Donaldson was merely a dummy, and that the land properly belonged to the station, and should have been included in the accounts filed in probate? Yes; but it was not.
49. With regard to the other selections mentioned in your report, and following the name of Donaldson, are they in the same position? Yes; they are all similar.
50. You mean to say that the whole of the selections, with the areas opposite the names in the report, were practically all dummy selections, taken on behalf of the station, and that the money for carrying out the improvements, and paying the deposit money, were advanced by the station, and not debited to the accounts of those persons engaged on the station? Yes.
51. Were all of these persons engaged on the station? Not all of them.
52. How many of them were? Donaldson was engaged on the station. I cannot trace whether Potts was engaged on the station. C. Wyndham was engaged on the station as a boundary rider. H. Watts was engaged as a general work on the station. D. Emmett was also engaged on the station as a boundary-rider. The others might have been engaged on the station.
53. Have you any documentary evidence of that? No.
54. Have you possession of the letter-books and documents in connection with Swift's estate? Yes; I have a great number of books and letters.
55. Have you any letters or copies of letters showing, in the first place, that it was desirable that this land should be taken up on behalf of the station? Yes; I have nearly 5,000 letters showing that the land was taken up as dummy selections.
56. Have you any at hand which you can read to the Committee relating to any of these selections? On the 22nd September, 1883, Book 10, page 448, Mr. Hann writes to Messrs. H. H. Brown & Co.:—
- I enclose particulars of five pieces of land taken in our interests on Mimosa, three of these being mineral conditional purchases and two conditional purchases under section 13. We do not expect to be able to fulfil these conditions all through, and prefer their running over the twelve months before survey, if it can be managed. We might have to take another 640 yet near, and west of, Behan's. I send these particular, as I thought you would like to mark them off, and to know they were in our interests.
57. Does that refer to any of the selections in the list you have read? Yes; Gore's No. 1 dummy selection.
58. After that letter did Gore take up the 640 acres? Yes; I think under the particulars given of No. 1 dummy you will get all the details, and how it was carried out.
59. Was it carried out similarly to Donaldson's case? Yes. When the testator died not one of these selections which had been taken up by Mr. Hann, and paid for from the station funds, was included in the probate.
60. Your contention is that, seeing and believing that these selections were taken up in the interest of the station, they really belonged to the station, and should have been included after Swift's death as assets in the estate? Yes.

G. Sandell.  
22 Aug., 1899.

TUESDAY, 5 SEPTEMBER, 1899.

Present:—

Mr. McLEAN,

Mr. THOMAS.

Mr. McFARLANE,

W. M. HUGHES, Esq., IN THE CHAIR.

William John Gore sworn and examined:—

61. *Chairman.*] What is your present address and occupation? I am employed on Wapwoolah Station.
62. Were you ever employed on the Mimosa West Station? Yes.
63. In what capacity? I went there as a Colonial-experience beginner, and eventually I was manager.
64. Were you bookkeeper at one time? Yes; storekeeper and bookkeeper.
65. How long altogether were you on the station? I think it was the beginning of 1881 that I went there, and, as nearly as I can remember, I left there in February, 1890.
66. Were you in the employ of the station in 1888? Yes.
67. Did you ever apply for a conditional purchase of 640 acres? Yes.
68. Where was that situated? On Mimosa West Holding.
69. What was the date of your application? I am not certain about the date; but I think it was some time in 1882. It might have been later.
70. Did you apply for it and obtain it? Yes.
71. Did you fulfil the conditions? Yes.
72. Eventually it became yours? Yes.
73. What was the amount of money which you paid for it? The deposit money was £160.
74. How was that paid? I cannot say for certain; but I think it was paid by cheque.
75. Did you tender it yourself? Yes.
76. Then, have you no recollection as to what form in which it was paid? As nearly as I can remember, it was a cheque.
77. By whom was the cheque signed? By Mr. Hann.
78. What bank was it on? The Bank of New South Wales.
79. Were all the transactions of the station carried on through that bank? Yes, as far as I know.
80. Were you not bookkeeper there? Yes.
81. Through what branch was the business done? The Wagga Wagga branch.
82. Did you have access to the whole of the books on the station? Yes—on Mimosa Station.

W. J. Gore.  
5 Sept., 1899.

- W. J. Gore.  
5 Sept., 1899.
83. Were you aware of Mr. Hann's plans and intentions;—did he make a confidant of you, so far as business transactions were concerned? Of course, during my time as overseer I knew a good deal, and saw some of the correspondence; but not all of it. But most things I used to see.
84. How did Mr. Hann come to sign this cheque for the deposit of 5s. per acre on 640 acres? You must let me give it in my own way: The cheque was given to an old man. He had the cheque, and he made application for this land in my name. I went down with this old man and applied for the land at the Lands Office. I do not know whether the cheque was signed P. Hann or Swift and Hann.
85. Did you actually tender the cheque? I know I was there, and no doubt I must have tendered it.
86. Do you recognise this cheque, No. 075836, on the Bank of New South Wales, Wagga Wagga, dated 3rd May, 1882? Yes; I know the writing and everything.
87. Is this signed Swift and Hann? Yes; that is the name of the firm.
88. Is it made out for W. Gore's C.P.? Yes.
89. *Mr. Thomas.*] Do I understand that the witness says that this is the actual cheque which was paid in on that occasion? To the best of my belief this is the cheque which was tendered on that occasion.
90. *Chairman.*] Did you make the improvements? I did not make any improvements.
91. Certain improvements have to be made under the Act; a hut of some sort has to be put up, fences, and some suitable provision for water;—were all those improvements made? Yes.
92. Were they made by you? No.
93. Did you pay for their being made? No.
94. Who made the improvements? Various improvements and a tank were made by a man named W. Sanderson.
95. The improvements are made, but not by you or by your agency? Yes.
96. Who paid the contractor? As far as I know the station did—I did not.
97. Were there any other selections, near you, taken up about the same time; for instance, by a man named Cody? Yes.
98. Who was he? The manager of the station.
99. Were you under him? Yes.
100. Did he take up a selection of 320 acres? Yes.
101. Did he take that up after you? Yes.
102. Did the same contractor make the improvements on Cody's selection? No; the only improvement I remember having been put up on his selection was a hut; there was no fencing.
103. Was it the same hut as was on yours? No.
104. Then do you remember two men named Yourell and Frayne? Yes. Yourell was a general hand on the station.
105. What was his wages? At first 15s. per week, afterwards £1. He was a rouscabout.
106. Was his selection contiguous to yours? No.
107. Was your selection a good piece of land, with a permanent water? No, not until a tank was put there.
108. Where was the permanent water on the run? There was only conserved water in tanks.
109. Who made the improvements on Yourell's, Frayne's, and Cody's selections? The only improvement I remember on Yourell's selection, and on Frayne's, was a hut on each.
110. Did Cody live in a hut? No, he lived on the homestead.
111. Who fulfilled the residence condition on Cody's selection? Nobody.
112. Was a man named Austin on the station? Yes.
113. Did he take up 400 acres? Yes.
114. Did he do so after you took up yours or before? A long time after.
115. Did he fulfil the conditions? Yes, as regards residence.
116. What were the improvements on Austin's selection? As far as I can remember a hut, a little fencing, a horse paddock, a stable, and that sort of thing, and a little well at the house.
117. What was Austin employed on at that time? Boundary-rider on the station.
118. Was he employed by the station to make the hut and fences on his selection? No.
119. Who made the improvements? I think a man named Thomas King put up his hut.
120. Did a station employee do it or a contractor? A contractor; but I am in doubt as to his name.
121. Who paid the contractor? As far as I know, the station did.
122. Have you any knowledge of the entries in the book? Yes; the entry would be in the book. But I do not remember putting it down in the book.
123. On what date did you transfer your selection to Hann? I cannot remember; but I think it was about 1888 or 1889.
124. Is this an agreement which was made by you on the 21st July, 1883? Yes.
125. What was the consideration for that transfer? They were to get a ninety-nine years' lease of the selection, as far as I can remember. There was a certain piece supposed to be reserved for my own use, consisting of 40 or 50 acres.
126. What consideration induced you to make that agreement? I was to receive a rent of £10 per year if I gave them a lease.
127. How long did that arrangement hold? I should say a little over five years.
128. What happened then? I was sent for to transfer it to the Bank.
129. What inducement was offered then? None. Mr. Hann told me that the Bank wanted it, and I said, "All right, I would sign it."
130. Did the Bank give you anything for it? No.
131. Did Hann pay you anything? Afterwards Hann gave me £50.
132. But, of course, the selection was worth very much more than that? Yes.
133. When he induced you to part with it for so small a sum, were you indebted to the station? No; I never looked upon the selection as mine; I went into it when I was a boy, and I did not know anything better, and I was glad to get rid of it.
134. What was your age then? A little over 16. I was never on a station before, and when I went there I did it not knowing hardly what I was doing.
135. Can you charge your memory with the receipt of a note from Hann, on the 23rd August, 1883, to this effect. "As you have transferred your 640 acres, with all your rights, I now enclose you a cheque for £50, as agreed upon?" I do not remember the wording of the letter, but I know I got the money.

136. It was an agreement between Mr. Hann and yourself that, upon fulfilling the conditions, and the selection being transferred to you by the Crown, you should transfer it to the station, and you were to get £50? When I signed the lease he told me that I would get £10 a year, at the end of five years, if I fulfilled the conditions. W. J. Gore.  
5 Sept., 1899.
137. It was really not a rent, but a payment of £50 at the rate of £10 per year? Yes.
138. Was it a verbal or written agreement alluded to here when he says, "You have transferred your 640 acres and all right to it, and I now enclose you a cheque for £50";—did he write out an agreement or did he say, "Well, if you take up this selection for us we will give you £50"? There was nothing like that said at first. They asked me to take up this land, and put in an application. They asked me how old I was, and I told them.
139. Do you know this letter-book which I show you, containing station letters from Hann to Cody? I recognise Mr. Hann's writing at page 184.
140. This is a letter from Mr. Hann to Mr. Cody, Mimosa West, in which he says that there is a danger of selectors going on the station, and that matters must be pushed as well as possible; that the manager should extend and clear the cultivation paddock of 50 acres, but to do it all on the outside in the middle paddock; that he had decided to take up 640 acres in the name of Gore in a certain paddock? Yes; I recognise that in Mr. Hann's writing.
141. That is dated 3rd May, 1882? Yes.
142. Then, I see you took up the selection on that very day? I do not remember the date.
143. Were the whole of these proceedings done by you or through your agency, or were the preliminary things done without your knowledge;—for instance, did you make the application yourself? No; I had nothing whatever to do with it beyond the fact that I went to the Lands Office, and I suppose that was the cheque that I deposited, together with the application form. I was in the company of an old clerk of the firm.
144. So that, as a matter of fact, the preliminary procedure was not done by you, or with your knowledge? I suppose I knew what I was doing when I went down to the Lands Office to put in the application.
145. Did you take up only one selection? Yes.
146. Did you also take up a mineral conditional purchase of 96 acres? Yes.
147. Was the conditional purchase taken up by you at the request of Mr. Hann? Yes.
148. Do you recognise this as Mr. Hann's writing, and is the reference there to you particularly with regard the 640 acres taken up in your name? Yes.
149. The fencing and other improvements were not made by you? They were not made by me, but I repaired the fence at one time when it was burnt down.
150. Did you reside there? Yes.
151. Did you make the improvements? No; I did not pay for them; I believe the station did.
152. Were the contractors employed for this particular work, or for other work? They were engaged to do general contract work. They did the work on my selection amongst others.
153. In 1883 an agreement for lease for ninety-nine years to Hann was made out, and you signed it? Yes.
154. The consideration was a yearly rent of £10? Yes.
155. You never received this yearly rent of £10? No.
156. But at the end of the time, when you transferred the selection to the Bank, you got £50? Yes; but not on the day that I transferred the selection; it was some time afterwards.
157. You did not get £10 per year as rent when it fell due? No.
158. Did you get anything further in the way of money consideration from anybody? No.
159. Was there no cheque drawn, signed "P. Hann," for £20? Yes; I got a cheque for £20.
160. What was that ostensibly for? As near as I can remember I was applying for a rise in my salary, and at the time they gave me a rise they gave me that £20.
161. Was that a few months after you transferred the selection? Yes; I find that is so; but I thought it was before.
162. You did not get the cheque for £50 until the selection was transferred? No.
163. And you got the £20 cheque afterwards? Yes.
164. As a matter of fact, you did not receive the consideration named in the lease of £10 per year? Not a year.
165. What you received was £50 for having transferred to the Bank, or some other person? Yes.
166. You sold out your right, title, and interest for £50? You might put it that way. I understood I was to get £50 at the expiration of five years. That is £10 per year.
167. But you understood, at the same time, that the selection was never really yours? I thoroughly understood that.
168. You were really only obliging the station by taking it up? Yes.
169. What was the particular reason why all those selections were taken up? To prevent others from coming in on the run.
170. Was the station involved at all? I do not know.
171. Read the evidence given by Mr. Sandell, with reference to dummy selection No. 1, at pages 16 and 17, and see if there is anything wrong about that? I do not notice anything wrong there.
172. What was your salary during the years from 1881 to 1884? I first started with £40 per year.
173. What would it be in 1884? I think I got £70 per year then.
174. Is this your handwriting in this book? Yes.
175. What is it? It is an account of the wages paid to the different men for work done.
176. What was H. Austin? A boundary-rider.
177. Were Yourall, Orr, Purser, Halloran, boundary-riders? Yes.
178. Did some correspondence pass between you and Mr. Gardiner, the manager of the Bank of New South Wales at Wagga Wagga, with reference to Austin? Yes.
179. Do you admit that Austin's application was not *bona-fide*? I should not call it a *bona-fide* application.
180. What had Mr. Gardiner to do with it at that time? He was the manager of the local branch of the Bank of New South Wales.
181. Were you, then, really acting agent for the Bank? I was manager for the Bank then.
182. At the time you were manager for the Bank, were the conditions of Austin's selections completed? No; but during my term of office they were completed.

- W. J. Gore. 183. Do you recognise the writing in this letter which I show you? Yes; that is Mr. Gardiner's writing.  
 5 Sept., 1899. 184. In his letter of 2nd February, 1889, he said, "When will Austin be coming in to make his declaration, as the time is up on the 24th"; then again on the 20th he says, "I have yours of the 17th; in regard to Austin, I do not think you have any occasion to retain him any longer";—did you discharge him then? Yes; he left the station then.  
 185. That is to say, between the 2nd February and the 20th February, he went in to make his declaration? I do not know the date, but I know he left the station to do so.  
 186. What bonus was he to get? I understood he was to get £50.  
 187. You knew at this particular time, of course, that a certificate was to be issued to a man who had no *bona-fide* intention of taking up the land? He had the land then.  
 188. It appears from the correspondence that he was in the employ of the Bank at the time that his declaration was made, and when the certificate was about to be issued? Yes.  
 189. Is this also an extract from the correspondence: "With regard to Austin, you may tell him he will get his £50 as soon as the certificate is obtained." In another letter he says, "He must have no fear as to his getting his bonus"? Yes.  
 190. Have you any idea as to how the issue of the certificate was accelerated; Gardiner says, "I am pressing for the issue of the certificates";—do you know how he did that? No.  
 191. On the 4th April Gardiner said, "I have to-day received the certificate for Austin's C.P., so you can pay him the £50, and take the receipt, which I enclose." Then, later on, he says, "I have yours of the 9th, enclosing Austin's receipt, for which I thank you"? Yes, that is correct.  
 192. The land was transferred on the 14th February, 1889, to the Bank of New South Wales for a consideration;—what was the consideration for the transfer of Austin's land to the Bank? I suppose there was no consideration at all.  
 193. Are you aware that there is a supposed consideration of £642 10s.? No.  
 194. That consideration, of course, does not exist? No.  
 195. That is not a *bona-fide* transaction? No.  
 196. You say he was a boundary rider, and did not take up the land *bona-fides*, and that he never intended to do so; that he was an employee of the Bank when the conditions were fulfilled, and up to that date when you paid him the £50? Yes.  
 197. And no consideration was paid by the Bank to Austin for the transfer of the land? No actual consideration.  
 198. But, on the other hand, there was a consideration paid of £50, which is mentioned in the letter of 20th February, 1889, as a bonus? Yes.  
 199. Do you know anything of A. R. Orr? Yes, he was a boundary rider.  
 200. Did he take up 320 acres? Yes; but I am not quite sure about the acreage.  
 201. Was that of the same character as the rest of them? Yes, exactly the same.  
 202. Were any improvements made? A hut and fencing.  
 203. Are you quite sure that it was not the same hut that was put on all these selections? Yes; it was a different hut.  
 204. Did Orr complete the transaction during your term on the station? I think so.  
 205. Who built the hut on Orr's C.P.? A contractor—a carpenter.  
 206. Do you remember these entries in the books: "Building huts on Orr's, Cody's, Frayne's, and Behan's selections—£8, £9 5s., and £10"? Yes.  
 207. Is this Mr. Hann's writing in this letter-book? Yes.  
 208. Here is a letter from Hann to Cody, dated 8th April, 1884: "If required, how will Orr do for taking up a piece of land?"—I suppose the reply to that was favourable. Further on he says: "I have detained Orr for the purpose of taking up 320 acres, and for helping George remove stable things, &c."—who would George be? He would be a groom in Wagga Wagga.  
 209. On 2nd April, 1884, this was written by Orr: "In consideration of £80 advanced by P. Hann to A. R. Orr, and also in consideration of your making the payments, and erecting the improvements, I do hereby charge the land comprised in so-and-so, and will execute a mortgage to P. Hann if required";—is that Orr's signature? Yes.  
 210. Whose writing is that on the document? Mr. R. B. Wood, of Wagga, and there is also Orr's signature.  
 211. Have you any reason to suppose that this selection was taken up under circumstances different to yours? No.  
 212. Was it done to keep *bona-fide* selectors off the run? Yes.  
 213. Do you recognise these letters from Mr. Gardiner to you? Yes.  
 214. Did you send a letter to Gardiner by Orr? I daresay I did.  
 215. Gardiner's letter is as follows:—"9th May, 1889.—I have yours of the 7th instant, *per* A. R. Orr, who has made his declaration on, and transferred conditional purchase. He tells me that there are some items owing to him in connection with improvements on the conditional purchase, amounting to £5 11s.; and I have told him that if they were necessary, and had your sanction, of course he would be paid the amount. It will be for you to say if he is entitled to it. No doubt, for various reasons, we should not cavil about it. I have told him that as soon as the certificate is issued the balance coming to him on the conditional purchase, £50, will be paid";—you replied to that, telling him, I suppose, that the £5 11s. mentioned should be paid? I cannot remember.  
 216. On the 15th May, 1889, you received a letter from Gardiner to the effect that you should pay Orr £5 11s.—improvements laid out by him on the selection—taking his receipt;—did you pay him? I daresay I did; but I do not remember it.  
 217. On the 3rd July, 1889, Gardiner wrote: "I have now the pleasure to advise that the certificate of A. R. Orr's conditional purchase has come to hand to-day; and that, therefore, you can now pay him the £50 coming to him on his signing the accompanying receipt, which be good enough to forward here"? I do not actually remember the transaction; but there is no doubt I did do it.  
 218. On the 16th July you say: "I have yours of the 13th instant, enclosing Orr's receipt, for which I thank you";—was there any consideration paid by the Bank to Orr for that transaction? I was their employee when I gave him that £50; there was no other consideration that I am aware of. The £50 was a bonus in accordance with the agreement.  
 219. The agreement was well understood by the men on the station—if they were suitable, and the Bank required them to take up selections, they would take them up? Yes.

220. Did the Bank or the station ever break their word, and not pay the bonus agreed upon? In some cases the conditions were not fulfilled.
221. But, whenever the conditions were fulfilled, did they pay? Yes; as far as I remember. Anything during my time was paid.
222. Read through the evidence, at page 18, by Mr. Sandell, with reference to dummy selections Nos. 2 and 3, and see if there is anything wrong there? I do not see anything wrong in that. There are lots of things there with regard to dates which I am not sure about.
223. But, as far as you remember, you see nothing inaccurate? No.
224. You see something there about Purser;—what was he? A boundary rider.
225. Look through the evidence given by Mr. Sandell, at page 18, about that case, and see if there is anything inaccurate? I do not see anything wrong with that.
226. What sort of land was this that was taken up? It was yellow box, forest, and pine country.
227. There were fourteen selections taken up on the Mimosa West Station—some were forfeited, some refunded, and so on;—would they comprise the pick of the land? Yes; the pick of the place, or in positions where they would stop other selectors from coming in. They were taken to block selection.
228. Were all these transactions carried on without the knowledge of the neighbouring squatters? They were all doing the same, I think.
229. *Mr. McFarlane.*] With regard to this selection of yours, do you state that at the time you took it up, you knew it was for the station, and not for yourself? At the time I was taking it up I did not actually know what I was doing.
230. Did you understand that it was not for yourself? I was asked if I would take up this land; I said yes, and I was accompanied by this old clerk.
231. Who was the first to ask you about taking up the land? Mr. Hann, as far as I can remember.
232. Previous to his asking you, had you any idea of taking up the land on your own account? No; not the slightest.
233. Did Mr. Hann provide the money for the deposit of 5s. per acre? Yes.
234. Who provided the money for the annual payments? Presumably Mr. Hann.
235. Did Mr. Hann pay all the money necessary for the deposit, the annual payments, and the necessary improvements? Yes.
236. When handing you this cheque for £160, and asking you to take up this land, did he say anything to the effect that it was to be taken up for the station, or was any mention made of a transfer when the conditions were fulfilled? No; as near as I can remember, he asked me to go with this old man and put in an application for the land.
237. Was nothing at all said about a transfer after the conditions were fulfilled, or that the land was to be given back to them at some future period? Not that I remember.
238. Did you look upon this £160 as a loan to you? No.
239. Were you engaged on the station at this particular period when the selection was taken up and receiving a salary? Yes.
240. Had you also access to the books? Yes.
241. Would you have a folio in the station book? Yes.
242. Were the moneys that were paid for deposit and annual instalments, and carrying out improvements, charged to your account in the ledger? No.
243. After the conditions were fulfilled, was a transfer made by you in the first instance to the Bank of New South Wales, the consideration money being £50, paid in the shape of a bonus? Yes.
244. And from that date, you had nothing to do with this selection? Yes.
245. Were you satisfied with the bonus and the salary which you received while on the station? Yes.
246. Did you make any demur about the payment being too small? No.
247. Did you look upon the selection all through as not belonging to you, but as having been taken up in the interests of the station in the same way as a number of other selections which have been mentioned were taken up? Yes.
248. *Mr. Thomas.*] Can you say if all the selections were included in the valuation filed when application was made for probate in Mr. Swift's will. If you will look at Mr. Sandell's evidence, at page 33, you will see the selections which were mentioned in the valuation of Mimosa;—is your selection included in that valuation? No; I do not see my selection in it. I do not see any selections in it.
249. To the best of your belief, this selection, taken up in your name, was part and parcel of the estate? Yes.
250. During all the years that this selection was nominally in your name were you in the employ of Hann and Swift? Yes.
251. *Chairman.*] Do you recognise this letter as being in Mr. Hann's writing? Yes.
252. Did you know Purser? Yes.
253. Was he employed on the station prior to his taking up this selection? No, not that I remember.
254. Was he employed to take it up? I believe he had been on the roads for the firm before that, but I never knew him until he came here.
255. As a matter of fact, he was employed to take up a selection in the north-west corner? Yes.
256. Were you in the employ of the station or the Bank when Purser died? When he died I was overseer.
257. Did Purser die on the run? No; I took him from there to the hospital, where he died.
258. Was he then in the employ of the station? Yes.
259. In addition to taking up 640 acres C.P., he took up an A.C.P.; he made a will, and probate was granted to P. Hann, to whom all the property was given; the will says: "I give and devise 640 acres of land conditionally purchased by me at Wagga Wagga Crown Lands Office, together with improvements, and the land adjoining, &c., unto the said Phineas Hann, for his own absolute use and benefit for ever. I give all the residue of my property unto the said Phineas Hann in trust to convert into money"; that was signed in the presence of R. B. Wood and W. P. Thorogood;—who were they? Wood, I think, called himself an accountant, and Thorogood at one time was employed as a clerk in Mr. Hann's office.
260. You had correspondence with Hann in reference to Purser's land;—do you remember an inquiry held in the Land Court into the *bona fides* of Purser's and Austin's C.P.s, which came off on the 28th March, 1888? I cannot remember.

- W. J. Gore. 261. Hann wrote you a letter on 19th March, 1888, as follows: "In thinking over Purser's land, you are quite right to get the scrubbing squared off for measurement. I see that there is an inquiry into Purser's and Austin's land comes on at the Lands Office here on the 28th";—do you recollect that letter? No.
- 5 Sept., 1899. 262. Another document you received from Hann was: "Send me in your estimate of cost of improvements on Purser's original 640 acres. I thought with Purser's cultivation, cottage, scrubbing, &c., that the 10s. per acre was on it";—do you remember that? No.
263. Here is a letter from Mr. Hann to you: "I see there is an inquiry into Purser's and Austin's land. Comes off here on 28th. Send me all Purser's letters and papers";—do you remember that? I do not, but I know that is a letter which I received.
264. Do you remember who took up this selection of Purser's;—did Hann make the application, or Purser? I think there was some correspondence between Mr. Cody and Mr. Hann in reference to that matter.
265. He said, for instance, in book 11, page 230:—"If there is any danger of losing the ground there this week you fill in the description on a form, and Purser will get the money from Mr. Gardiner, of the Bank of New South Wales, and take up the land." That is to say, I suppose, you understood if there was any danger of any *bona-fide* men coming in? Yes.
266. At page 240 of the letter-book he says:—"I could not get in time, on Thursday, to take up the selection for Purser; but must do it next Thursday"? Yes.
267. Then he goes on to say:—"To-day I took up 640 for Purser in the corner: but not exactly described as you give it." According to that he must have been actually taking it up for Purser? Yes, making the application.
268. He did it on 6th March, and on 25th March an agreement was signed by Purser, as follows:—"In consideration of £160 advanced, and in consideration of P. Hann making the payments, and erecting the improvements, &c., I hereby charge the land comprised in the agreement, &c., and if called upon will execute a mortgage, &c. Signed, William Purser; witness, R. B. Wood." Then here is a cheque drawn on the Bank of New South Wales for a deposit on 640 acres at 5s. an acre;—what improvements were made on Purser's selection? A weatherboard cottage, fencing, and a tank.
269. Hann writes to you on 20th July, 1888:—"Purser's land, 640—what would be the best improvement to put on for the 4s. per acre required—clearing or what; do you want yards there? The five years will be up next year"? I suggested putting down a tank, as far as I remember.
270. Who made those improvements? A contractor.
271. At page 16 of the evidence you will see a summary there of the different selections taken up on Mimosa West Station;—do you know all those selections? Yes; but I did not know anything in connection with the selection taken up by D. Drover.
272. You recognise them all with the exception of the last one—that is Drover's? Yes; and I knew that man and the selection, but I did not know anything in connection with it. As far as I knew, he was a *bona-fide* selector.
273. Were you on the station when probate was applied for under the will of Mr. Swift? I think so.
274. Were you there from 1881 to 1884? Yes.
275. What were you doing? I went there as a Colonial-experience hand. After three years I used to keep the station books.
276. Were you fairly conversant with the transactions of the estate? Yes, as far as Mimosa West was concerned.
277. Do you know whether those selections were set down as assets in the estate? That I cannot say.
278. Was anything said by Mr. Hann or by Mr. Cody, or any other person, which would lead you to believe that they were included or were not? I never heard anything at all said about them.
279. How old were you then? At Mr. Swift's death, about 19.
280. Do you remember anyone valuing the station or inspecting it for valuation? No.
281. How many sheep were on it on an average during say three or four years before and after 1884? I cannot say.
282. How many sheep did they shear each year? I cannot say without referring to a book. They were using it as a dealing station—sometimes they might shear 30,000, and at other times not more than 10,000 or 12,000. I believe 30,000 were shorn there at one time.
283. Do you remember anyone going to the station to inspect it in order to value it for probate? No.
284. Would you recollect if anybody had? I do not remember anyone coming after Mr. Swift's death.
285. How far is Mimosa West from the town? About 50 miles from Wagga—it is off the main road.
286. Would a visit by a stranger be a rare thing? I would know if anybody came there.
287. He could not do it in a day—he would have to be there for week? Yes.
288. Were you there all the time? I might have been away on a short trip on the roads, but just after Mr. Swift's death I do not think I was away.
289. Were you away on any trip? Only for a short time.
290. When you came back, would you have heard if anyone had been there? Yes.
291. To the best of your knowledge and belief, did anyone inspect it? No; not as far as I remember.

WEDNESDAY, 6 SEPTEMBER, 1899.

Present:—

MR. McLEAN,

MR. THOMAS.

MR. McFARLANE,

W. M. HUGHES, ESQ., IN THE CHAIR.

Mr. Simpson, of Minter, Simpson, & Co., appeared for Mr. John McDonald.

William John Gore recalled and further examined:—

W. J. Gore. 292. *Chairman.*] Do you wish to add anything to your evidence of yesterday? No.

6 Sept., 1899. 293. Is there anything that you desire to supplement or correct in reference to your evidence? Not that I know of.



294. Have you any letters to submit in reference to any of the transactions upon which you were examined yesterday, or in reference to any transactions which bear upon those transactions? I have letters. W. J. Gore.  
6 Sept., 1899.
295. Have you them with you? No.
296. What is the nature of those letters? Simply business correspondence between the inspector of the Bank and myself as manager.
297. Are they in reference to those C.P. transactions? Some of them might have a bearing on that.
298. Would you have any objection to forward them to the Committee? They are in the possession of my parents in Melbourne.
299. Could they be forwarded here, and will you do so? Yes; I will give them to the Committee.
300. Will you forward them to the Committee? Yes; I will have them forwarded; but I cannot say when, because I have to write to my people in Melbourne, and get them forwarded.
301. Will you use all reasonable despatch to get them here? Yes.

John McDonald sworn and examined:—

302. *Mr. McFarlane.*] What is your occupation? Grazier, living on Mungie Bundie Station, near Moree. J. McDonald.  
6 Sept., 1899.
303. Did you give evidence in December, 1897, upon this inquiry? Yes.
304. I understand you have a good knowledge of the working and the particulars in connection with the estate of the late Mr. Swift? Yes, as far as my interest in him was concerned.
305. Have you a good general knowledge? I have a general knowledge of his transactions outside.
306. I mean, generally speaking? Yes, a good knowledge.
307. Were you interested in that estate? Yes.
308. The Committee desire particulars respecting certain details as to what took place in the estate since you gave evidence before. I understand you had access to the books and accounts of this estate? As far as my own accounts with the interest he held in the business in which he and I were together. Those were the only books I had any access to.
309. Used you to make entries in some of those books? Yes.
310. I understand you had control of the books concerning the portion of the estate in which you were interested? Yes; certainly; they were my own books.
311. Were they under your charge? Yes.
312. There is a book called the station-ledger—do you know it by that name? Yes.
313. Is that the book now produced? Yes.
314. I believe that is a book called the station-ledger? I do not know the index; it is in handwriting that I am not acquainted with.
315. Is that the book? That is one of the books relative to the property.
316. Will you turn to folio 739 in that book? Yes.
317. Is that in your handwriting? It is.
318. Now turn to folio 13? Yes.
319. Whose account is that? Charles Donaldson.
320. Do you know Charles Donaldson? Yes.
321. What was he? A horse-driver.
322. Was he employed in connection with the stations? Yes.
323. When was Charles Donaldson first employed on the station? I cannot say.
324. About what time? This book shows in 1879.
325. Was he then engaged on the station up to about that period? This shows that he was engaged on 1st January, 1879. But it has been transferred from a previous ledger to this account.
326. Was he, from your own knowledge, apart from the books? I cannot tell you, the man was about there before ever I was there.
327. But from the time when you first knew him? Certainly, some years before that. This particular account I am now reading as to dates is not in my handwriting, the other was.
328. Is that account correct;—is it correct to say that Donaldson was engaged on the station in 1879? To the best of my belief he was engaged in 1879 at a wage.
329. When were his services discontinued as an employee on the station? I cannot tell you.
- Mr. Simpson:* I object.
330. *Mr. McFarlane.*] I understand that free selections were taken on this station of Mungie Bundie in 1881—one, I see, was taken by Charles Donaldson; I understand he took up a free selection of 640 acres;—are you aware of that fact? I am aware he took up a selection.
331. Of 640 acres? What it is I cannot say.
332. Can you say anything about the date? I cannot.
333. Does not the ledger say? The ledger says nothing except about his employment.
334. That account of Donaldson's would be under your supervision at the time he was engaged on this station; any money that would be advanced to him would be charged to his account in his ledger folio, would it not? Not as a hired servant.
335. Would not any moneys that would be advanced to him be charged to his account; he has a ledger folio in the station-ledger? Yes; I have just looked at it.
336. In the debits and credits there, in the event of money being paid to him, would not that be charged to his account by the station? Yes; I see here he has credit and debit.
337. My question is that in the event of money being paid to him, would not that be charged to his account? Evidently it must be, to keep an account.
338. Turn to ledger folio 347;—is not that account called the Lands Account in connection with the station? Yes.
339. In 1881 Charles Donaldson took up a free selection of 640 acres on the station;—are you aware of that fact? I am aware that he took up a selection; but on what date I cannot tell you.
340. Are you aware that there was an amount of £160 paid by the station to Charles Donaldson at that particular period? I see no entry of that nature here. I see an entry here mutilated; I do not know by whom.
341. Are you aware of any cheque being made out for £160 about that period, and paid to Mr. Donaldson? Yes; there is an entry here for such. 342.

J. McDonald. 342. From your own knowledge, apart from that account, or refreshing your memory by looking at that folio, do you remember £160 being paid to Charles Donaldson? I see it has been loaned to Charles Donaldson.

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343. In the event of a loan being made to Donaldson, would not that be charged to him in his folio? It should be.

344. Can you understand why it has not been? —

*Mr. Simpson:* I object.

Charles Donaldson called in, sworn, and examined:—

C. Donaldson. 345. *Mr. McFarlane.*] What is your occupation? Boundary-rider at present.

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346. Where do you reside? At Mungie Bundie Station.

347. Were you engaged some years ago at Mungie Bundie Station;—when were you first engaged on that station? What do you call engaged? I worked piecework on it many years ago.

348. When did you first commence to work on wages? A very short time; but I cannot say exactly.

349. What was the nature of your engagement first? Without answering these questions, and no disrespect to the Committee, I have been advised by my solicitor to decline answering questions without counsel's advice.

*Mr. Simpson:* You can answer that, Donaldson.

*Chairman:* The Committee will not allow any advice by Mr. Simpson, and whatever evidence you give you will do so because you are asked, and not merely because Mr. Simpson tells you.

350. *Mr. McFarlane.*] I asked the witness what was the nature of his employment on Mungie Bundie Station—under contract or by the week—which? I am asking the nature of it—not whether it was weekly or otherwise;—what was the nature of the employment? It would be contract work.

351. What kind of contract work? I was pressing wool.

352. Were you ever a boundary-rider? I was, but not at that time.

353. Or a drover? No.

354. Were you a boundary-rider in 1881? No.

355. Were you in 1879? No; I was at contract work at that time.

356. If Mr. McDonald said you were a boundary rider in 1879;—would that be untrue? I cannot recollect in 1879. I was working there doing piece-work, contract work. I went there then a little while after I had been contracting. I had been contracting back and forward, not continually. I worked at other places. I came back, and was boundary riding for a while.

357. How long were you boundary riding? As near as I can tell now, it would be some six months or so at that time. I cannot say exactly.

358. Were you not getting a fixed rate of wages per year? At that time, yes.

359. How long were you getting an annual rate of wage? For the time I served.

360. Were you a free selector on this particular station at one time? Afterwards.

361. What do you mean by afterwards? After I had been contracting on that station, and after I had been boundary riding a while.

362. You ceased contracting after you took your free selection? I did not cease contracting. I contracted sometimes; but I had none for some time after.

363. Is it not a fact that you were engaged at £1 per week on Mungie Bundie Station from January, 1879, and, I think, previous to that, until some time in 1885? That was the wages I got as boundary rider.

364. I am asking you about that period—from January, 1879, until 1885,—were you not getting wages at the rate of £1 per week? I do not think I was all the time.

365. Surely you know—you do not mean to say that you forget what was paid to you for six years? But during those six years I was working my team at times.

366. I am not asking you that;—were you not getting a regular rate of wage from January, 1879, until 1885? Not continually.

367. Concerning this free selection of 640 acres, do you remember on what date you took up that selection—the year will do? I cannot tell the date; but I think somewhere about 1881.

368. What was the area? 640 acres.

369. Was it situate on Mungie Bundie Station? Yes.

370. Was the deposit paid—£160? Yes; something like that.

371. Had you any conversation with anybody previous to taking up this land? No.

372. You made the application in your own name? Yes.

373. Did you do it of your own free will? Yes.

374. Did you make a statement that the free selection would be your property? Yes.

375. £160 was the deposit paid? Yes.

376. Was that your own money? My own money.

*Mr. Simpson:* I object.

377. *Mr. McFarlane.*] Was this £160 the deposit on the free selection of 640 acres taken up with your own money? —

*Mr. Simpson.*] Do not answer that Donaldson? I object to that question.

378–9. *Chairman.*] You must answer on your own responsibility, Mr. Donaldson. If you refuse it is entirely your own responsibility. Mr. Simpson is not appearing before this Committee with the leave of the House on your behalf. He has no official position, and if you take the responsibility of refusing to answer the question, because Mr. Simpson advises you to do so, then I am here to say that it may be a serious thing. If you refuse to answer any more questions we shall refer the matter to the Speaker. I allow the question.

380. *Mr. McFarlane.*] I repeat the question whether the money paid as a deposit for this free selection of 640 acres was your own money? It was my own money.

381. Do you remember getting an advance from the Mungie Bundie Station of £160 in the shape of a loan in 1881 on the very day that this free selection was taken up? I cannot say that I recollect getting that amount about that time.

382. Do you remember getting a loan of £160 about that period? I cannot recollect about that period.

383. Are you prepared to swear that you did not get a sum of £160 from the Mungie Bundie Station as a loan? At that time?

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384. Yes? I do not know; I cannot say at that time.
385. Do you remember at any time getting the sum of £160? Well, I cannot recollect the amounts that I have had at different times. I cannot recollect what they amount to.
386. Were you accustomed to getting loans? I have got loans.
387. At about what time did you get those loans? It was after that time.
388. Was it in 1881 or 1885—surely you can tell about the year? I think about 1885 I got some.
389. You do not remember 1881? No.
390. So that if a statement was made that you got a loan in 1881, and if the station books show that loan, it would not be correct? I do not recollect at that time.
391. Are there not annual instalments to be paid on a selection of 640 acres of £32 per year, after three years, and did you pay those annual instalments? Yes.
392. Can you remember when they were paid, or where they were paid? I think it was some time about the beginning of the year, about February, that they used to be paid. I cannot say exactly—February or March.
393. Were those payments made by cheque? No.
394. Had you a banking account? I had.
395. In what bank was your account? Formerly I had it in the Joint Stock Bank, and then I went into the Bank of New South Wales. I think the Bank of Australasia was the first bank.
396. Surely you would remember the name of the bank? I think the Bank of Australasia was the first that came to the town.
397. When was that? Somewhere about 1878 or 1879.
398. That is about the period when you were first engaged on Mungie Bundie Station? Somewhere about that time?
399. How long did you continue in that bank? Until it closed. It shifted to Narrabri, and I changed into the Bank of New South Wales.
400. What is about the date? I cannot say. These things have gone out of my head, and my recollection is not so bright. No man at my age is in a position to recollect these little circumstances.
401. Who fulfilled the conditions on this free selection? I did.
402. I suppose improvements were necessary to fulfil the conditions of the Act? Yes.
403. Do you say that you did all this work yourself? Of course not; I could not do it myself; I had it done.
404. Did you pay for getting it done? Yes; I could not do it myself.
405. Had you men engaged on that free selection to assist in carrying out the improvements? At different times I had; sometimes none.
406. With regard to fencing—was that let by contract? By contract.
407. Who were the contractors? I had two or three. I let it. There were four or five out on it. Some did 2 miles, some did 3 miles, and so on.
408. Are you aware of the fact that those contractors who did this fencing were paid by the station-owners? No, I am not aware of that.
409. You say that you paid for those yourself? Yes.
410. It would be untrue to say that the station paid for them—I mean the contractors who carried out the fencing? Yes; I mean to say I paid my own cheques for them.
411. What banking account would that be in? The Bank of New South Wales, Moree.
412. Are you prepared to prove that you paid these contractors by your own cheque? By cheque.
413. Not by your own cheque? My own cheque.
414. And the annual instalments in the same way? They do not take cheques. You have to take money to the Lands Office when paying annual instalments.
415. Are you aware that those annual instalments are charged to the station account in their lodger? I am not aware of it, because the first one that I had I transferred it to another man to get money.
416. I suppose you were not on the best of terms with the station-owners? I do not know that I was on bad terms. You do not run a man out of the door when he comes near you. If you give him no trouble he does not give you any.
417. As a rule, when a man takes up a free selection on a run there is not a friendly feeling between him and the owners? Very often a slight affair will cause ill-feeling.
418. Was that your case? I do not know that it was. I was friendly pretty well with everyone about.
419. I mean the station-owners;—were they friendly with you, although you took a free selection on one of the best parts of the run? Not particularly. I do not think it was one of the best parts.
420. Was it one of the worst? No, I suppose it was not.
421. Were you contracting before you took up the free selection? Yes.
422. Were you contracting afterwards? Yes; I did several things with my team. I had a team.
423. So that there was no ill-feeling at all between the station-owners and yourself about taking up the free selection? I do not understand you.
424. Was there a friendly feeling between Mr. McDonald and yourself, notwithstanding the fact that you took a free selection on their run? Yes.
425. Did you take up another free selection, an additional conditional purchase of 1,905 acres? Yes.
426. Did you apply for that yourself? I did.
427. Did you pay for it in the way that you say you paid for the others? Yes.
428. Who filled up the application form for this additional conditional purchase? I cannot say for certain now; but when I was thinking of taking it up, and before I did so, I spoke to one or two persons. I had to get money. I had not quite money enough to do all these things.
429. You say you paid for them yourself? Yes; you do not understand me. I had to get money on the farm.
430. By mortgage? Yes.
431. That is the 640 acres? Yes.
432. Who did you mortgage it to? To a man named King.
433. Who was Mr. King? He was a man in charge of —
434. Mungie Bundie Station? No.
435. Was he not the sub-manager of Mungie Bundie Station? Never that I knew of; never in my time. He was living at Gravesend.

- C. Donaldson, 436. Do you say that Mr. King was not sub-manager of Mungie Bundie Station? He was not living at Mungie Bundie at all; never in my time that I knew off.
- 6 Sept., 1899. 437. Do you still hold this free selection of 610 acres? Not at the present day.
438. Did you sell it? Yes.
439. To whom? To Mr. McDonald.
440. Is that Mr. McDonald of Mungie Bundie? Yes.
441. What consideration did you get for the sale of this free selection? I cannot say now, for I drew it at different times. But it was something like pretty well £1,200. It might be a trifle more. I did not get it at that time, but at different times—loans.
442. I asked you a few minutes ago if you remembered getting loans? Yes.
443. I think you said you did not get loans? Yes.
444. Was one of these loans £160? Not that I recollect.
445. Were a number of them £32 each? Some were.
446. A number of the entries in the ledger are for £32? I cannot say. I got some.
447. There is one loan of £160;—do you say you do not recollect that? I cannot recollect it exactly.
448. All these loans, put together, you took as loans against the free selection? Yes.
449. Mr. McFarlane.] Can you tell me how often these loans were negotiated—how often did you get them—one every year? Oh, no; just when I required some.
450. At what part of the year would you require them most? It is impossible for me to say. When I was getting something done—and it may be I had not the funds.
451. Do you say that some of these loans were for £32? I cannot say exactly now what they were—it is very long ago.
452. Do you remember your free selection being submitted for inquiry before the Local Land Board? Yes.
453. Did you give evidence on that occasion on the 26th October, 1885? I remember giving evidence, but I cannot give the date.
454. Did you state that this conditional purchase was your own *bona fide* property, and that no one else had any interest in it, or words to that effect? Yes.
455. Had you Mr. Vyner, a solicitor, appearing on your behalf at that time? Yes.
456. Did you instruct Mr. Vyner? Yes.
457. Did he send a bill of costs?
- Mr. Simpson: I object.
458. Chairman.] Do you object to answer that? Yes.
459. On what grounds? I do not think I am compelled to answer.
460. Do you hold that it will incriminate yourself? No; I do not know whether it would or would not. I do not understand law.
461. You understand facts—you will not be asked a question of law; it is a question of fact—why do you object to answering it?
- Mr. Simpson: I object to it on behalf of Mr. McDonald, on the ground that it is not pertinent to the inquiry.
462. Chairman.] On what grounds do you object to answer the question? I am not a college-bred man; I cannot understand like you gentlemen can; I cannot answer it in the manner in which you would.
463. There is no necessity for regretting lack of education. It is a plain question of fact. There is no attempt to get you into a corner; I ask you why do you object to answer this question? I simply object to it.
464. Are you afraid it will incriminate you? Yes.
465. Mr. McFarlane.] Did you make any arrangement with Mr. Vyner when instructing him?
- Mr. Simpson: I object.
- Chairman: I rule that the question is proper; if the witness refuses to answer, I will submit it to the Speaker, and to-morrow the question will be put again, and if the witness then refuses he will take the responsibility.
- Mr. Simpson: I object.
466. Chairman.] What answer do you give to the question? I object to that.
467. Do you object to answer it? Yes.
468. Mr. McFarlane.] You have stated in evidence that you had accounts in two banks—the Bank of Australasia and the Bank of New South Wales? Yes.
469. Do you produce your bank-books? I cannot do so here. I did not think they would be required.
470. Can you send for them? There is no one in my place except a strange man, who is living in the kitchen. My place is locked up, and I cannot allow a strange man to look over my place. No one could do it but myself.

THURSDAY, 7 SEPTEMBER, 1899.

Present:—

MR. DICK, MR. MCFARLANE,		MR. O'SULLIVAN, MR. THOMAS.
W. M. HUGHES, ESQ., IN THE CHAIR.		

Mr. Simpson, of Messrs. Minter, Simpson, & Co., appeared on behalf of Mr. John McDonald.

Charles Donaldson recalled and further examined:—

- C. Donaldson, 471. Chairman.] You were asked a question yesterday in reference to a transaction you were alleged to have had with Mr. Vyner; you were asked, first of all, "Had you Mr. Vyner, as solicitor, appearing on your behalf?" and you said, "Yes"; you were asked, "Did you instruct Mr. Vyner?" and you said, "Yes"; you

you were asked, "Did he send in a bill of costs?" and Mr. Simpson, the solicitor, offered an objection. I C. Donaldson, then asked you if you objected to answer, and you said, "Yes." After some further questions as to your reason, you said you were afraid they would incriminate you. Will you take it upon yourself to say that <sup>7 Sept., 1899.</sup> Mr. Vyner did not send in to you a bill of costs?

*Mr. Simpson* : I object.

*Witness* : I object.

472. *Chairman*.] You object to what? To answer.

473. I am asking you the question now—will you take it upon yourself to deny that Mr. Vyner sent in a bill of costs?

*Mr. Simpson* : I object.

*Witness* : I object to answer.

474. *Chairman*.] It appears to this Committee that something like a conspiracy to defeat the purpose for which this Committee was appointed has taken place, and I shall not tolerate for a moment any idiotic objections. You will have to give a reason for your objection. No reason for objection will be tolerated unless you say that you do not know or you do not remember, or that you are afraid that it will incriminate you. Further, I shall not allow Mr. Simpson to advise you in any way in the Committee. The 6th section of the Parliamentary Evidence Act, under which you are now being examined, says:—

6. No action shall be maintainable against any witness who has given evidence, whether on oath or otherwise under the authority of this Act, or in respect of any defamatory words spoken by him while giving such evidence; but if any such witness shall wilfully make a false statement, knowing the same to be false, he shall, whether such statement amounts to perjury or not, be liable to penal servitude for a term not exceeding five years.

7. If any witness so summoned or attending to give evidence shall refuse to answer any lawful question during his examination, he shall be deemed guilty of a contempt of Parliament, and may be forthwith committed for such offence into the custody of the Usher of the Black Rod or Sergeant-at-Arms, and, if the House so order, to gaol for any period not exceeding one calendar month.

We do not want to be troubled, we want to go through with the proceedings in a quiet way—as Committees always have done, but it appears to me that you are objecting to answer this because you desire to shield Mr. McDonald. But you are here to act on your own responsibility. You are not representing Mr. McDonald. You are here to answer certain legitimate questions which arise in the course of this inquiry. Now, you will not take it upon yourself to deny that Mr. Vyner did send in a bill of costs?

*Mr. Simpson* : I object to that question.

475. *Chairman*.] Mr. Simpson has lodged an objection on behalf of Mr. McDonald. I want an answer from you to the question—Are you prepared to deny that a bill of costs was sent in by Mr. Vyner in respect of this transaction?

*Mr. Simpson* : I object.

*Witness* : I object.

476. *Chairman*.] Do you object to answer the question? Yes.

477. You said, yesterday, you would not answer because it would incriminate you;—what do you mean?

*Mr. Simpson* : I object to that.

*Witness* : You simply put the words in my mouth. I would not have made the remark. It was you who put the words in my mouth.

478. *Chairman* : You must not say that. You must not pose here as a rustic and innocent witness from the country. You are receiving the instructions of Mr. Simpson, and you do not answer a solitary thing unless you get a tip from him, and then you have the impertinence to say that we put words into your mouth. We cannot get any words out of your mouth. I said to you, "Do you hold that it will incriminate yourself?" and you replied, "Yes." I asked you, "Are you afraid it might incriminate you?" You could have said, "No"; but you said, "Yes." I say now, what did you mean by it? How will it incriminate you?

*Mr. Simpson* : I object to that.

479. Did you ever engage in any speculations? I do not know exactly what you mean.

480. Did you engage in any speculations—for instance, in 1881, 1882, 1883, and 1884? Speculations of what description do you mean?

481. I am asking you a straight question—say "Yes" or "No"? I would if I understood the meaning of it.

482. If you knew where the question was going to land you, you mean you would then answer it? I do not really know what you mean by the question.

483. Did you engage in any speculations? If you give me to understand the meaning of this speculating, then I will be able to answer.

484. What wages were you getting all this time?

*Mr. Simpson* : I object to that question.

485. *Chairman*.] I now ask you what wages were you getting in 1879, and on to 1881?

*Mr. Simpson* : I object.

*Witness* : I object to answer.

486. *Chairman*.] You said yesterday that you took up 640 acres on the 10th February, 1881, and that you paid a deposit of 5s. per acre, amounting to £160? Yes.

487. Was that deposit paid? It was all paid.

488. Did you pay it? I did.

489. In what form did you pay it? In notes.

490. Had you an account in the bank at that time? I think I had.

491. Did you draw £160 from the bank to pay this deposit? I did not.

492. Where did you get the money from if you did not withdraw it from the bank?

*Mr. Simpson* : I object.

*Witness* : I object.

493. *Chairman*.] Will you deny that the money was paid by the station? Certainly.

494. Are you aware that Mr. McDonald has admitted it? I am not aware what Mr. McDonald said.

495. Will you swear that the £160 paid for the selection was not paid by cheque? I am not going to undertake to swear after such a long time, because I could not positively swear.

496. You do not forget that you are on your oath, and you said before that you paid in notes? I still believe that it was paid by notes.

- C. Donaldson. 497. Look at this entry in the station-ledger I see there is a cheque there, number 18379, £160, loaned to Charles Donaldson;—do you remember that loan being made to you? I cannot swear positively to having that particular loan.  
7 Sept., 1899.
498. You will not swear that it was not made? I could not swear that it was made at that time. I have had loans.
499. Was ever a loan of £160 made to you by the station? I cannot say exactly the amount.
500. About that amount? I have had different amounts.
501. Was this one of them? It seems from that that it is.
502. Are you aware that this loan which seems to have been made to you was made on the very day that £160 was paid as a deposit for a C.P.? I am not sure of that.
503. Do you recognise this receipt for £160? Yes.
504. That document is dated 10th February, 1881, on the very day that you paid the deposit on 640 acres. You have seen that this loan was entered against you in the station books;—will you swear that that loan was not made to you? I will not swear.
505. Will you swear that it was not made to you for the express purpose of paying this deposit? I will not swear that I had that loan on that certain date, because I cannot recollect it.
506. But you will swear that you did not draw £160 from the Bank to pay it? I will.
507. Who paid the annual instalments on this selection as they became due? I think I paid them myself personally, until I got clear of it for a while.
508. Will you swear to the date? I believe I did.
509. What are we to understand by that;—will you swear that the station did not pay it? —  
*Mr. Simpson*: I object.
510. *Chairman*.] Will you swear that the station did not pay it? —  
*Witness*: I object to it also.
511. *Mr. McFarlane*.] Did the station pay you the sum of £32, when the annual instalment was due on the selection? They might have; I do not say.
512. Look at this entry in the station ledger—“£32 for interest of Donaldson's C.P.” I see that.
513. *Chairman*.] Do you recognise that as payment of your C.P. by the station? Of course it is so there.
514. You do recognise it? Yes.
515. *Mr. Simpson*.] In connection with that debit which you see there, would it be a loan from the station to you? Of course it would.
516. *Chairman*.] Did the station loan you an amount equal to every instalment as it became due? I do not think they did.
517. Will you deny that they did? When I was short, and had not the money ready of my own, I was in the habit of trying to have it ready.
518. The original payment appears to have been lent to you by the station? It might be.
519. £160 was lent to you by the station? It seems so there.
520. Was it? I cannot remember. I cannot keep in my memory every little sum that I got.
521. This is not a little sum, it is £160; unless you are a millionaire I would call it a decent sum; if somebody gave me £160 to-day, in twenty years' time I would remember it? Perhaps in twenty years' time it might move out of your memory in spite of you.
522. Will you deny that the £160 deposit was a loan from the station? If it was a loan it was booked against me.
523. When did you repay that loan? I repaid it when I disposed of my land altogether.
524. For what consideration did you dispose of your land? —  
*Mr. Simpson*: I object to that.
525. *Chairman*.] How much did you get for your land when you sold it? —  
*Mr. Simpson*: I object to that question.  
*Witness*: I object also.
526. *Mr. McFarlane*.] Did not the station buy this selection? —  
*Mr. Simpson*: I object.
527. *Mr. McFarlane*.] I understand this selection was sold for a bonus of £50? —  
*Mr. Simpson*: I object.  
*Witness*: I object.
528. *Chairman*.] Will you read this entry: “Holding old C.P., £50 bonus”;—do you recognise that in the station-ledger? I see it.
529. How was this bonus paid? I cannot say.
530. Did you receive it? It seems that I did.
531. Are you going to deny, in the face of that entry, that you did receive it? You asked me when; how can I keep all these things in my head. You will drive me mad if you keep me here much longer.
532. Do you know Mr. McDonald's handwriting? I cannot say that I know it well.
533. Do you recognise the document produced in his handwriting? It is something like it, but I cannot say.
534. On 9th January, 1886, there is an entry: “Boundary rider”;—what was the bonus paid for? I do not understand you.
535. What did the station give you this sum of £50 for? I got the £50 when I turned over my land. I had not a great deal more coming to me, because I was indebted. I had to give it up.
536. Do you mean to say that this was another loan of £50, or was it wages? No; it was my own. It was not loaned to me when I was getting clear of my land.
537. So that, when you had parted with your C.P., you got that? As far as I recollect.
538. Will you swear that it was not the only consideration you received for parting with this C.P.? It was not the only consideration. I told you I had borrowed money.
539. Will you swear that the £50 was not all the money you received from the station for the transfer of the C.P. to the station? I object to answer it.
540. *Mr. Simpson*.] Do you say that there were loans to you besides? Yes.
541. *Chairman*.] I see from the book that wages were paid to you at the rate of £1 per week? Yes, certainly, when I did work by the week.
542. On May 24, 1885, there is an item of six months' wages in McDonald's handwriting, £26;—I suppose that would be your wages? Yes.

543. It appears that from 1879 to 1885 you received £1 per week? Yes, I was working about there at C. Donaldson. that time.
544. Did you get that money? Yes. 7 Sept., 1899.
545. On this date, when the £50 was paid to you, that is January 9th, 1886, you were still getting £1 per week;—were you getting more? I cannot say what I would have been getting at that time, I cannot remember.
546. Did you receive this £50 which is shown in the book? I cannot say, except what I have explained. Of course I received £50.
547. What did you receive it for? When I turned over my land.
548. It was not for wages? No, that part was not.
549. Was the £50 for wages? No, I do not think it was.
550. Was it wages? I told you before that I got £50.
551. I am asking did you get it as ordinary wages? No.
552. Was it money that you received when you sold the land? Yes.
553. Was it the price of your land? Would that be anything like a price?
554. I have not the slightest idea;—what did you get for your land? I cannot exactly say, but it was something like £1,200.
555. Who bought it from you? Mr. McDonald.
556. Did you receive the money in one lump? I had very little to receive.
557. How is that? I had so much borrowed, and I had to pay it.
558. Borrowed from whom? Loans from the station, as you see in the book.
559. How much did you ultimately receive;—how much was left over after you repaid the loans? I had something like £50 to £100.
560. There seems to be no record of anything more than £50;—will you swear you got more than £50? I will not swear.
561. So that, as a matter of fact, when you sold your land you had borrowed so much, and you were so encumbered with debt, that after repaying your debts you only had £50 or £100 to receive? I had not too much.
562. You had about £50? Yes.
563. Will you swear that you did not get more than £100? I am almost certain that I did not get more than £100. I do not think I got that much.
564. Will you swear you got more than £50? No; I will not swear anything. I cannot swear to £1 or £2.
565. Will you swear that you got any more than that £100 or £50? It might have been more at the time. I tell you I had not a great deal.
566. *Mr. Simpson.*] Did you ever keep any books? No.
567. When you were giving these answers were you speaking purely from recollection of things which took place sixteen and seventeen years ago? Yes; some of them more than that.
568. *Chairman.*] This took place in 1886, so that it cannot be made more than thirteen years ago, even by an expert in figures; I suppose you prefer to call this money for the sale of your selection rather than a bonus due? I do not understand you.
569. Do you prefer to call this sum of £50 which you received when you sold your selection a bonus, or would you say it is money received for a sale? —
- Mr. Simpson:* I object.
- Witness:* I object to answer.
570. *Chairman.*] You admit that this land which you sold for about £1,200, only left you in pocket for an amount which you will not swear was over £50? No; I told you I would not.
571. So you must have borrowed the whole of the deposits and the whole of the money to improve, and to fulfil the conditions, and you borrowed it from the station? I cannot tell you now the amount I borrowed. I borrowed a good deal.
572. You borrowed all you wanted? Of course.
573. Did you transfer your land to Mr. King? I cannot remember the date.
574. When did you transfer your selection by way of mortgage to W. J. King? —
- Mr. Simpson:* I object.
- Witness:* I object to answer, because I do not recollect the date.
575. *Chairman.*] Was it retransferred to you? Yes, certainly.
576. You recollect that? Yes.
577. Who fixed up these transfers;—did you do them yourself? —
- Mr. Simpson:* I object.
578. *Chairman.*] Did any lawyer do it for you? —
- Mr. Simpson:* I object.
- Witness:* I object.
579. *Chairman.*] Will you swear that Mr. Vyner was not the man who did this? —
- Witness:* I object to answer.
580. *Chairman.*] Look at this document, Donaldson to King;—it is a bill of costs amounting to £6 6s from Vyner to the station in reference to the transfer of 640 acres conditional purchase to King;—do you recollect the transaction? —
- Mr. Simpson:* I object.
- Witness:* I object.
581. Will you deny that you recollect? —
- Mr. Simpson:* I object.
582. *Chairman.*] Do you mean to say that it did not take place? —
- Mr. Simpson:* I object.
583. *Chairman.*] Did you transfer it to King? —
- Mr. Simpson:* I object.
- Witness:* I think that question was asked yesterday.
584. *Chairman.*] Never mind that;—what I am asking you is was it transferred to King, and did King transfer it back to you?
- Mr. Simpson:* I object.

C. Donaldson.

7 Sept., 1899.

*Witness* : I think I answered that question yesterday.585. *Chairman*.] I want you to answer it to-day? —*Mr. Simpson* : I object.*Witness* : I object.586. *Chairman*.] Do you mean to say that your answer yesterday was untrue? No. I object to answering one thing half a dozen times over.

587. Do you object because the solicitor advises you to do so? I take his advice to a certain extent.

588. Who was King?

*Mr. Simpson* : I object.589. *Chairman*.] Look at this station ledger—"W. J. King," of Gravesend, overseer, station account, in Mr. McDonald's handwriting; do you see an item of twelve months' salary, £120";—does it not seem as if he were an overseer? —*Mr. Simpson* : I object.590. *Chairman*.] If you do not answer such a question it seems to me you are wilfully endeavouring to hide the truth, and to wriggle out of a position which you occupy;—I ask you was King an overseer on the station? —*Mr. Simpson* : I object.*Witness* : You have got it all there; I am almost sure I answered it yesterday.591. *Chairman*.] Mr. McFarlane asked you yesterday if King was the man in charge of Mungie Bundie, and you said, "No." Then you were asked if he was sub-manager of Mungie Bundie, and you said, "Never in my time, he was living at Gravesend";—do you say that the answers you gave yesterday were untrue? You do not want me to answer half a dozen times to one thing; you have got it all there.

592. What I want to know is was he overseer on Gravesend during your time at Mungie Bundie? Part of it—no more.

593. What was he doing the other part of the time;—was he employed about any other part of the various stations, or what was he? I cannot say.

594. Who owned Gravesend? I believe Mr. McDonald did.

595. As a matter of fact, was not King overseer for McDonald? He must have been.

596. Did you transfer your selection to King? Certainly.

597. Did he transfer it back to you? Yes.

598. Then you sold it ultimately to McDonald? Certainly.

599. What consideration did you receive for the transfer to King? —

*Mr. Simpson* : I object.*Witness* : I object.600. *Chairman*.] You will not swear that you received anything? —*Mr. Simpson* : I object.*Witness* : I object to these questions.601. *Chairman*.] What was the deposit on the additional conditional purchase? —*Mr. Simpson* : I object.602. *Chairman*.] Did you receive from the station a sum of £190 11s. to pay the deposit on your A.C.P. as a loan, or in any other way? If I got it, I got it as a loan.

603. Did you receive as a loan from the station £190 11s. to pay the deposit on the A.C.P.? If I received that sum it was as a loan.

604. Was it a loan? If I did, it was as a loan.

605. Did you receive it? If it is there against me. I have no account of what I got; but if it is there against me, I suppose, it is quite correct.

606. Anyhow it was paid? Yes.

607. Did you pay it yourself? Yes.

608. Did you get the money out of your own account, or did you borrow it from the station? I borrowed money several times from the station.

609. Did you borrow from the station £190 11s., on the 13th August, 1885, to pay the deposit on the A.C.P.? I cannot swear that I borrowed that sum exactly.

610. But you will swear that the money was paid? Yes.

611. And it was paid by you? Paid by me.

612. Did you withdraw money from your own banking account to pay it? No.

613. Did you have the money in cash, or in any other way in the house? I had some money in cash, sometimes I had a good bit in the house, and sometimes I had not.

614. Do you tell the Committee that you had sums of £190 in the house? —

*Mr. Simpson* : I object.615. *Chairman*.] Was the money paid to the Crown Lands Agent? Yes.

616. The station ledger shows that on that date, the 13th August, a cheque, number 56315, £190 11s., was drawn out, being the exact amount paid to the Crown Lands Agent on that date on account of the additional conditional purchase, so that when you say you think or believe you borrowed the money you might fairly admit that you did borrow it? It is there against me. I have no account of these things now, and my memory could not retain every little item which was there.

617. To the best of your knowledge and belief you did borrow it? Yes.

618. If this is a loan against you, how do you account for the fact that your account is not debited with it? —

*Mr. Simpson* : I object.*Witness* : I object to answer.619. *Chairman*.] How do you account for the fact that none of these loans from the station are debited against you? —*Mr. Simpson* : I object to that.*Witness* : I object to answer.620. *Chairman*.] Were you a particular friend of Mr. McDonald? Not that I know of.

621. Did you pay him back all this money? I paid him back what I had to pay him.

622. Is it not rather an extraordinary thing that Mr. McDonald, who was a very careful bookkeeper, should have omitted all mention of the loans against you, which in the aggregate, must have amounted to some hundreds of pounds? —

*Mr.*



- Mr. Simpson* : I object.  
*Witness* : I object to answer.
623. *Chairman*.] What made you transfer the selection from Mr. McDonald?  
*Mr. Simpson* : I object.  
*Witness* : I object to answer.
624. *Chairman*.] Who made the improvement on the selection?—  
*Mr. Simpson* : I object.
625. *Chairman*.] Did you make them?—  
*Mr. Simpson* : I object.  
*Witness* : I object to answer.
626. *Chairman*.] Do you, a *bonâ fide* selector, object to answer a question as to whether you did what the Act requires, namely, to make your own improvements? Why do you object, when asked who made the improvements? You know you are supposed to make certain improvements, and unless you do, the Crown will not transfer the land to you;—who made them? Surely you will give some other answer beside objecting;—were they made by the station?—  
*Mr. Simpson* : I object.  
*Witness* : I object to answer.
627. *Chairman*.] Were all the payments made that had to be made in connection with your selection made through loans from the station? Not all, I think. I told you I borrowed money at different times, and that sometimes I had money of my own.
628. Everything you were deficient in you borrowed from the station? If I was short I had to get it somewhere.
629. How much were you short in the original deposit of £160;—were you not short of the whole amount, according to your own statement?—  
*Mr. Simpson* : I object.
630. *Chairman*.] You say that whatever you were short you made it up by a loan from the station;—were you short of the whole amount of £160?—  
*Mr. Simpson* : I object.
631. *Chairman*.] Have you not already said that you borrowed the £160? If I have already said so, why do you keep asking me about it?
632. How much were you short in the other payment of £32?—  
*Mr. Simpson* : I object.
633. *Chairman*.] Had you to pay £32 annually? Yes; I believe so.
634. For how many years had you to go to the station to borrow that? I cannot tell.
635. A good many years, I suppose? I cannot tell.
636. Was your selection good land? Not the best in this country.
637. Was it pretty decent land? Not out of the way. Only just fair.
638. You have said that the consideration was £1,200 when you sold the land;—was it good land? It was a bit of a pine ridge.
639. If it was a fair selection, and if you did not borrow all the money from the station to pay the annual instalments and the original deposit, how came you to part with it for the sum of £50?—  
*Mr. Simpson* : I object.  
*Witness* : I object to answer.

[The Committee adjourned at 1 p.m., and resumed at 2.15 p.m.]

John McDonald recalled and further examined:—

640. *Chairman*.] Is this item in the station ledger in your handwriting? Yes.
641. On August 13th, 1885, there appears an entry of a cheque, number 56315, £190 11s., can you give any explanation as to what that cheque was drawn for? Not from that entry. I must have further details.  
J. McDonald.  
7 Sept., 1899.
642. Here is a copy of an application for an A.C.P. of 1,905 acres, on Mungie Bundie run; and on that date an amount of £190 11s., being a deposit of 2s. an acre on 1,905 acres of Crown lands, was paid at the Lands Office at Moree on behalf of Charles Donaldson;—do you recognise that cheque as being utilised for that purpose? I do not. I recognise the two amounts.
643. Do you remember the cheque being drawn out for that purpose? I just see the entry there—I do not remember what the particular cheque was for.
644. You see that on that particular day there was an amount paid of £190 11s.; it is entered in your handwriting and drawn, I suppose, by yourself, and it was drawn in favour of Donaldson? Very likely.
645. On that particular date Donaldson paid £190 11s. into the Crown Lands Office at Moree, being a deposit of 2s. per acre on 1,905 acres? Yes.
646. What I want to get from you is: Do you admit that was what the cheque was drawn for? I do not admit anything of the kind. I admit that is my handwriting, and the cheque for the amount is in my handwriting.
647. Did you lend Mr. Donaldson that amount of money? I lent him various amounts at different times. The books and balance sheets will show that.
648. Is that one of the amounts? I cannot say without seeing the balance sheet and book; that is only one entry in this particular book. There were balance sheets made out for each year. All those loans were shown in the balance sheets.
649. Is there a contra account for Donaldson, in which he is debited for £190 11s.? Without seeing the whole account I cannot say; no doubt he would be.
650. Here is a balance sheet for 1884-1885;—is that amount of £190 11s. a loan to Donaldson, or was it paid by the station. The balance sheet is shown to you to refresh your memory; you admit that a cheque was drawn, can you charge your memory with this transaction? Was the cheque paid for this application?
651. I am asking you that? Any money I gave to Donaldson I lent.
652. Was it paid to the best of your knowledge for that application? I cannot say.
653. If it was a loan, would it not be debited against Donaldson? It should be.

- J. McDonald. 654. How does it appear in the balance-sheet;—is the item there and the item in the station ledger the same? They are the same in figures, no doubt.
- 7 Sept., 1899. 655. It is the same date, the same year, and it is an A.C.P. in both accounts;—was there an application made by the station for an A.C.P.? No.
656. What A.C.P. can it refer to, if not to this one in the ledger? I cannot say; it would appear to be the same amount.
657. Were you in the habit of lending money to Donaldson? Yes; and to others.
658. Did you do this right through Donaldson's occupation of this A.C.P.? No; he applied to me to get assistance, and I gave him assistance as a loan.
659. Have you any idea whether that is debited against him;—you were carrying on business in conjunction with Swift, and would not this transaction be recorded? Certainly.
660. There is no mention of it here in the ledger? It seems to be mentioned in the balance-sheet.
661. But not against Donaldson, certainly? The following year's balance-sheet might show it.
662. *Mr. Simpson.*] Were there subsequent balance-sheets? Every year.
663. Was there a final sheet made up, showing exactly the position of Swift's estate with regard to the partnership? Yes; in 1895.
664. Would that balance-sheet probably refresh your memory? Certainly, if I could only see it.
665. *Chairman.*] Do you mean to say that that balance-sheet would explain this item of £190 11s.? It might; it would explain all the assets that were remaining. A balance-sheet was made out every year.
666. Do you say that that sum of £190 11s. was, as far as you know, a loan to Donaldson? Yes; as far as I know.
667. And the station did not hand that to Donaldson for him to apply *malu fides*? —
- Mr. Simpson:* I object.
- Witness:* I object to the question.
668. *Chairman.*] When did Donaldson repay this loan? The final repayment would be shown in the 1895 balance-sheet. An accountant then made up the balance-sheets from the books at the request of Mrs. Swift and the other trustees. You would have to go through the sheets to know how the amounts stood at the final.
669. Was Donaldson in a position to pay that money until he sold the selection? —
- Mr. Simpson:* I object.
- Witness:* I object to answer such a question. How could I know what Donaldson's position was?
670. *Chairman.*] With reference to another loan of £160 made by you or the station to Donaldson, can you charge your memory with any particulars about that? If it is in the books it was a loan to Donaldson.
671. Were you in the habit of making loans to other station employees? I used to assist selectors and other people in the district.
672. I mean station employees;—he was an employee of the station? He was subsequently to taking this land.
673. Subsequently? Before and after, I think. At various times he worked for us. Sometimes he would be contracting, at other times doing all sorts of work.
674. Was he not an employee of the station practically from 1879 down to 1885? I think he was, more or less.
675. Was this C.P. applied for in 1881? Yes.
676. At the time you advanced him £160, was he a station employee? Possibly he was. I cannot remember; the books will show.
677. Do you see an entry in the station ledger showing that in 1880 and 1881 Charles Donaldson was paid wages for six months—£26? Yes.
678. He took up the selection on the 10th February, 1881, and was he not at that particular time a station employee? Yes; it appears so.
679. He was a station employee at the time he took up this C.P., and at the time that the loan was advanced to him from the station? Apparently.
680. Were you in the habit of lending any money to other station employees for the purpose of taking up selections? —
- Mr. Simpson:* I object.
681. *Chairman.*] Were there any others besides Donaldson? I do not know; besides I object to answer the question. As a matter of fact, I do not remember.
682. The station made a loan to Donaldson of £32 in respect of the annual instalment on 640 acres C.P.; there is an item showing that;—was that a loan to Donaldson? Yes.
683. Did you lend all the money to Donaldson as the occasion for payment arose? I cannot say; whatever I lent him is there in the book.
684. It is not entered there as a loan, is it? It is charged to the lands accounts of the station? That may be; Donaldson's account might show it in the balance sheet.
685. *Mr. Simpson.*] Does your answer to the other item of £190 apply to this item of £32 2s.—that is to say the balance-sheet made up to 1895 should show exactly the position of these various items, and the debit against Donaldson? Yes.
686. If you had the balance-sheet up to 1895, could you give the Committee a definite answer? I could.
687. *Chairman.*] Do you remember when Donaldson sold the selection to the station? I do not remember. If the Committee could get the balance-sheet of 1895—the final one, it would show all the transactions.
688. Where is it? It was filed in the Court.
689. When I asked you about the transference of Donaldson's selection, did you say you did not know it had been or when it had been? I did not know when it had been.
690. Of course it was transferred? I bought it.
691. Did it appear in the assets of the estate in the application for probate? All these lands did. The land of Donaldson and others appears in the balance-sheet.
692. Were there other selections on the run in the same position as Donaldson's? There were a number of selections on the run.
693. Did they all appear in the applications for probate? I cannot say. All those which had clean titles did.
- 694.

694. *Mr. Simpson.*] Did you make up the balance-sheet for probate. No.
695. *Chairman.*] How did Pitt, Son, & Badgery value this property—did they personally inspect it, or send somebody to inspect it? I do not remember how they did it. Someone came there, but on whose account I do not know.
696. Would it be possible to arrive at an actual valuation of a property without seeing it? Yes, pretty nearly by people in that line of business.
697. Do you see this letter which I produce? Yes; it is a letter written in Sydney, giving, approximately, information about the property.
698. In that letter you say it is near enough—“Herewith I send you an approximate statement of our places which you can make out to your own liking. They are quite near enough. I would urge you to push the probate through quickly.”—This is the approximate statement accompanying it? The area given there is the original.
699. What does that mean? That was before any land was taken up. That area comprised the original Government run.
700. *Mr. Simpson.*] Do you notice that the date of that letter is March, 1884? Yes.
701. At that time the C.P. belonged to the firm? No.
702. In 1884 this C.P. had not been paid for, and it stood in the books of the partnership, or rather Donaldson's name stood in the books as a debtor? Yes.
703. Therefore, it would be improper to include the C.P. as part of the station property when the partnership had no interest in it, and when it was a debt by Donaldson to the firm? Yes, exactly; and that debt was accounted for later on. If you get the balance-sheet of 1895, you will find the whole explanation. The Court had it, and it should be there now.
704. *Chairman.*] Of course you refuse to answer the question which it seems to me would clear up the whole thing—that is, you refuse to tell us how much you gave for this selection when it was sold.
- Mr. Simpson:* I object.
705. *Chairman.*] Here is an item which I wish you to look at:—“By sundries, as per statement, £37 16s. 3d., Charles Donaldson, boundary rider”? Yes.
706. Here is the statement alluded to above:—“Holding old C.P. £50 bonus? I gave him £50 for his equity of redemption, to recover the money for the firm for the loans.
707. So he did not sell direct to you? No; he got this as his equity of redemption as far as my memory serves me. I believe it was a bonus. It is marked as such.
708. Upon payment of that he transferred the thing to you? No, I do not think he did. The final balance-sheet will show that and all other items relative to Donaldson.
709. *Mr. Simpson.*] You admit that either there should be a C.P. to represent the asset in the estate or there ought to be a loan? Certainly, one or the other. It is a long time ago.
710. *Chairman.*] For instance, if the loans advanced by the station amounted precisely to the sum required for the deposit, and to keep up the annual charges, and then at the end of the period a £50 bonus was paid, you will hardly deny that the transaction does not appear to be *bond fide*? It might be *bond fide* enough.
711. I am not saying that it is not, I am only saying that it does not appear to be so. You admit that you lent him £160 for the deposit? I admit I lent all the entries in the book.
712. You admit you lent him £32, the annual instalment, and that at the end of the period you gave him £50 bonus. You say that is the equity of redemption—that is, for his interest? I believe that was so.
713. It has been sworn here that the value of the selection was £1,200? It was not worth £1,200.
714. Here is an item of £6 6s. to F. G. Vyner, for preparing a mortgage, &c., Donaldson to King. It has been sworn that King was a servant of yours? Yes, he was in my employ at one time.
715. Was he in your employ in November, 1885?
- Mr. Simpson:* I object.
716. *Chairman.*] Here is an item in the ledger, September, 1885, twelve months' salary, £120? Yes; that seems to be paid to King, who was an overseer on a station.
717. What I ask you now is, was King in your employ at that time—that is, November, 1885? Yes.
718. If he was, will you explain that item of £6 6s. That is, how the transference of something from Donaldson, an employee of yours, to King, another employee of yours, in November, 1885, would justify a charge of £6 6s. for lawyer's fees for that transfer, appearing in the station accounts?
- Mr. Simpson:* I object.
719. Here is an item in the book referring to Vyner's bill of costs. An item of £22 is corrected by yourself, and it is made £22 10s.; the whole of it is paid by you. Here is an item, “Costs of appeal, &c., Donaldson's case, 610 C.P.—£22 10s.” Perhaps you will explain that item? I cannot explain it. You get me the balance-sheet for 1895, and I will go into the whole question with you.
720. *Mr. Simpson.*] Is it possible that it is a loan to Donaldson? That is very likely.
721. *Chairman.*] I think it is clear that the station paid the costs of the appeal? It is not at all clear. It may be a loan to Donaldson, like any other item.
722. *Mr. Simpson.*] It might be money paid on Donaldson's account? It might be. There were balance-sheets for every year—why not produce those.
723. *Chairman.*] I think we have produced enough? No, you have not. You want the final one to show these assets.
724. *Mr. Simpson.*] Do you admit that if this money were paid away for these particular matters they would be for and on behalf of Donaldson? Yes.
725. And that they would be loans standing exactly in the same position as other payments made to him on which you have been examined? Yes; and when the partnership accounts were finally adjusted they were paid, or if they were not paid, it is a clerical mistake. The accountants of Mrs. Swift had full control.
726. *Chairman.*] But if the books presented to the accountant did not contain any mention of these matters, how could the accountant make up any statement showing them? But the books did.
727. If the books did not contain them, they would not appear in the balance-sheet? I was being constantly called to explain them. The sum of £160 was the first transaction with Donaldson. It was started as a loan, and the others could be dealt with in the same way.
728. I have here a statutory declaration by John McDonald, grazier, Mungie Bundic, dated 11th November, 1895, in which he says: “I know Charles Donaldson, an applicant for an additional conditional purchase
- on

J. McDonald.  
7 Sept., 1893.

J. McDonald, on the resumed area of my run. I have known him for about ten years, and he has during that time done various work for the station, sometimes contracting and sometimes wages work. I know he is the holder of a C.P. on my run. I have not now, nor have I ever had, any interest in the said C.P. or the additional C.P. now applied for. The said Charles Donaldson has never been a regular employee on the station, and does not hold any land in the station interests";—do you remember making that declaration? I do not.

7 Sept., 1890.

729. Do you recollect it at all? I do not.

730. The allegations contained in it are rebutted by the evidence of yourself and Donaldson? No; the allegations there correspond with what I have said.

731. *Mr. Simpson.*] When wages are put down there it does not mean that he is employed at so much per week? It is only week by week.

732. *Chairman.*] You see all these items—such as £160 for C.P., £190 for A.C.P., and £32, and all these items coincide with payments made to the Crown Lands Agent;—do you say that all these were loans from yourself and the station to Donaldson? All the moneys were loaned.

733. And they were never repaid? Pardon me, they were. I say that in the 1895 account the payment is shown.

734. Were they actually paid in money? Yes, I think so.

735. *Mr. Simpson.*] Could not they be paid by crediting Mrs. Swift's account with a certain portion of them? That is the way in which they would be paid.

736. *Chairman.*] By crediting Donaldson's account? No; the 1895 balance-sheet will show it. The accountant who prepared it is in the city, and he could explain it.

737. Were these loans all repaid? Yes, they were all adjusted and repaid.

738. And at the time of Swift's death the estate was in credit so far as Donaldson was concerned to the extent of these loans? Up to that point.

739. But they were not disclosed in the application for probate? I know nothing about the application for probate. I did not make the application.

740. I do not say you did—do you know if they were disclosed? I do not know anything about it.

741. You will admit that if they were not disclosed, they should have been, if the estate was in credit to that amount? Yes.

742. Supposing the estate had lent Donaldson £600, at the time when you and Swift were carrying on business, and Swift died, the estate ought to be credited with the claim on Donaldson for £600? No, for £300.

743. Say £300, and if it was not credited with that amount it was an evasion of probate duty? Yes; that is a matter for the trustees.

744. Do you remember how much was lent to Donaldson after Swift's death? No.

745. How much was lent to him before Swift's death? It would appear from these books to be £160.

746. Then there were the annual charges—do you remember what improvements were made? —

*Mr. Simpson:* I object.

*Witness:* I object to answer.

747. *Chairman.*] Of course, some improvements would have to be made, otherwise the selection would be forfeited?

*Mr. Simpson:* I object.

*Witness:* I object to go into the question of forfeiture at all. What have I to do with forfeiture?

That is a matter for the Lands Department.

748. *Chairman.*] You were engaged in a matter of forfeiture? No.

749. £192 was lent by the station to Donaldson before Swift's death on account of the 640 acres C.P.? Yes.

750. According to that, the asset would be that amount, plus the improvements, whatever they were worth, divided by two?

*Mr. Simpson:* I object.

*Witness:* No; I object to go into that assets question. There is a loan in the books, and I say it was loaned.

751. *Chairman.*] We do not say the asset was suppressed by you; but it was suppressed by somebody. I say that you lent, on behalf of the station, £192 to this man. At the time that Swift died there was £192 plus the improvements on the land to the credit of the firm? Yes.

752. So that according to you, half of that belonged to Swift? Yes.

753. That was not mentioned in the statement for probate, and the selection ultimately was transferred to you? The fact of its not being in the statement was owing very likely to the fact that it was a very small amount in such large transactions; but the trustees had any amount of information for probate, because I think they sent someone to look over it and give a report.

754. All that we have before us is that this was suppressed, and that the asset has now become transferred to you? The land has been purchased by me.

755. If half of that amount belonged to Swift's estate, and it was not mentioned in the assets, how did you become seized of the whole of the land; and, as a matter of fact, half of that belonged to the estate, but the estate was not credited with it. It was credited with it.

756. How could it be when it was not mentioned in the probate? I had nothing to do with the probate.

757. *Mr. Thomas.*] Did you give the trustees information about it? I gave them any information they asked.

758. You admit that half of this money which was paid would be an asset of the estate? Yes.

759. When the trustees wanted to get all the information about the estate for probate, I presume they corresponded with you? They sent a man up, so far as my memory serves me.

760. You were partner, and would you not be consulted, and would you not know what went into the probate? I did not know, not being a trustee.

761. Would you not see, for your own sake, that the probate was put in properly? No, I did not.

762. Would you not see that the probate was not more than it ought to be? That was immaterial to me, as I was not a trustee. It did not affect me in the least, as I had not to pay the probate duty.

763. *Mr. McFarlane.*] With reference to these loans, I understand that Donaldson had a folio in the ledger? I think he would. It might have been a folio for whatever work he was on.

764. You have stated that these various sums of £160, £32, and so on, were loans to Donaldson? Yes. J. McDonald.  
 765. Seeing that he had that folio, would not those loans be charged to his account? ———  
*Mr. Simpson*: I object.  
*Witness*: I object.  
 766. *Mr. McFarlane*.] In granting these loans, was any arrangement made as to the length of time the loan was to exist? No time.  
 767. It was simply a loan without any stipulation as to repayment? Quite so.  
 768. Was there any rate of interest charged? Yes; I think the current rate of interest was charged in the balance-sheets.  
 769. Do I understand that these various sums at various periods were given in the shape of loans at the current rates of interest, without any stipulation as to when they were to be repaid? That is my impression of all the transactions I had as disclosed by the books.

7 Sept., 1899.

FRIDAY, 8 SEPTEMBER, 1899.

Present:—

MR. DICK,

MR. MCFARLANE.

MR. THOMAS.

W. M. HUGHES, ESQ., IN THE CHAIR.

Mr. Simpson, of Messrs. Minter, Simpson, &amp; Co., appeared on behalf of Mr. McDonald.

John McDonald recalled and further examined:—

770. *Chairman*.] This is the balance-sheet of John McDonald & Co., showing McDonald and Swift's J. McDonald: liabilities and assets, as filed for probate, annexed to an affidavit by Hann and Croaker. This is for new runs—Mungie Bundie, Boollooroo, and Gravesend? Yes; I see it covers the lot.

8 Sept., 1899.

It is made up as follows:—

	Total original leasehold, 190,000 acres.	£
Fenced and improved freehold land, about freeholds, 35,000 acres, at 30s. per acre .....		52,500
Leaseholds and improvements thereon .....		15,000
Plant, &c. ....		2,500
60,000 sheep (more or less), at 9s. ....		27,000
4,000 cattle (more or less), at 40s. ....		8,000
200 horses (more or less), at 150s. each ..		1,500

(Signed)

R. M. PITT.

H. S. BADGERY.

That is a copy of the schedule filed in probate, and a statement of the assets and liabilities of McDonald and Swift.

771. I produce the balance-sheets prepared by Peel, Borrowdale, & Co., signed by John McDonald. There 12,296 acres of freehold are put down at £2 5s. an acre, making £27,661 10s.? The land was not sold; it was only an estimated value.  
 772. The whole thing was only an estimate? Yes.  
 773. We do not say that the amount filed for probate was correct or not; but since the whole thing was a question of valuation and a matter of opinion, backed up by no actual transaction, we want to know how it is that in one place the land is estimated to be worth £2 5s. per acre, whereas, when the statement is filed for probate, it is estimated at only 35s per acre? It is purely a matter of opinion, as you say; but you will notice that the valuations for probate and those obtained on realisation were very close together.  
 774. When was the estate realised? Portion of it only was realised.  
 775. *Mr. Simpson*.] Was it realised by public auction? Yes.  
 776. Did that take place a few years afterwards? Yes.  
 777. *Chairman*.] We have nothing to do with what it was ultimately sold for; if the property was valued in 1880, and sold during the Bank crisis in 1893, you would hardly say that that would be a fair estimate of its value. If Swift died in 1881, and if the property was not sold until 1888 or 1889, obviously that is very little guide? This was the valuation in 1881—£106,500.  
 778. Here the land is estimated at £2 5s. an acre all round? It is purely a matter of opinion.  
 779. *Mr. Simpson*.] Did you make any valuation for probate purposes? Not at all.  
 780. *Chairman*.] Somebody did make a valuation, and we want to get your opinion, which ought to be a good one? I can only say that this is a valuation made for probate duty. The amount obtained on realisation at auction very nearly corresponds with this value.  
 781. *Mr. McFarlane*.] What was the original cost of the freehold when purchased from the Crown? It ranged from £1 to 25s. and 30s.  
 782. What would be about the average price? About 25s. for the actual freehold. Of course, that would be as it stood, whereas the valuation included improvements, fencing, water, and all sorts of things.  
 783. *Chairman*.] With the improvements you speak of, surely the land was worth more than an addition of 5s. per acre? There is no valuation put in for the leasehold lands at all, as far as I can see.  
 784. We are only talking about the value of the land—35,000 acres? Yes; there is so much taken in for the value of the run.  
 785. We have an item here of freehold land, about 35,000 acres, at 30s. per acre, £52,500; in another valuation we have the same land put down at a value of only £2 5s. per acre? It is over-valued, that is all. I would like to have sold it at that price then, or at this day.  
 786. Is it over-valued in one instance;—might it not have been undervalued for probate? No; because the realisation confirmed the valuation for probate. It was not rushed into the market; it was largely advertised and sold to the best advantage. The probate valuation and the realisation being nearly together, that shows that it is as correct as it could be. Henderson over-valued the land. There was a gentleman sent up, I do not know by whom, and I now remember that his name was Henderson. He came up on behalf of the trustees or someone to value the properties, and evidently this is his valuation.  
 787. You accepted it as correct? Yes; I have signed it. I suppose I did not look into it very closely. I cannot say whether I did or not.  
 788. *Mr. McFarlane*.] What was the object of that valuation? I do not know what they sent up Henderson for; they did not tell me. I think the trustees sent him.

789.

- J. McDonald. 789. *Chairman.*] You remember this man coming up there, and valuing, but you do not know for what purpose he did so? I did not know at the time; I know it had something to do with the trustees.
- 8 Sept., 1899. 790. If he was sent up by the trustees to value for probate, how was it that when they filed the probate they valued the land at 30s. per acre, although he had estimated it at £2 5s per acre? I really could not say whether he was sent up on behalf of the trustees or on behalf of anyone of them. I understood he came up on account of Somerville. He was a friend of Somerville. When he valued the property and showed me his figures I laughed. I said I wished to goodness it were worth that.
791. But yet you signed the valuation? Yes, it appears so. I did not know what this valuation was.
792. Did the property deteriorate from 1884 to 1887—had you a bad drought? Yes; in 1884–1885 we had a fearful drought.
793. But you had good weather in 1886? That is likely enough.
794. I was out there in 1886–1887, and it was then very good weather? It generally is after a very bad time.
795. When that valuation was made it was either in good weather or in a season after good weather? It was good weather. I remember distinctly now when he was there—it rained 6 inches.
796. *Mr. Mc Barlane.*] When the valuations were made by Pitt, Son, & Badgery for probate purposes, did they inspect the property? Not so far as I know. In fact they could not have done so without my knowing it.
797. In arriving at a correct valuation, would not those who personally inspected the property be more likely to arrive at a correct valuation than even very competent valuers who did not personally inspect? Not always, because people like Pitt, Son, & Badgery, who are in constant communication with property owners, who are acquainted with all the sales, and who know the different values of all these properties (like Hardie and Gorman, in connection with city values), might know a great deal more than others who inspected the property. A man might be sent out who would be thoroughly conscientious, as far as his knowledge was concerned, as no doubt Mr. Henderson was, but he altogether over-valued this property. I remember his showing me his figures, and I simply laughed at him. I did not remember, yesterday, who he was, but I now remember him distinctly. It rained all the time he was there. He must have had a large idea of the country to get these valuations; because, although I appear to have adopted them there, I knew perfectly well that they were over-valued and he showed me his figures.
798. Did you mention the fact that you considered his figures were over-valuations? Yes, to himself.
799. You signed his valuation? Not then; that was afterwards.
800. Had Pitt, Son, and Badgery an intimate knowledge of the property? Yes; they sold it to me in the first instance.
801. Was the person who made this valuation frequently on the stations? No. Pitt, Son, and Badgery were not there at all.
802. How could they arrive at a valuation if they had no knowledge of the property? Just as I have explained, they are experts in station matters. They are selling agents.
803. I can quite understand that holding good with regard to the value of sheep, cattle, and horses, but there is such a fluctuation in the price of land that it would be necessary to have personal knowledge? Districts are so well known in the grazing line of business that they get at a value almost within 1s. an acre.
804. What about improvements? True, I can quite understand that it would be necessary to see improvements, in order to get some idea of the value; but the place was pretty well known all round about, and is now, as far as improvements are concerned. I used to frequently see Pitt, Son, and Badgery. They sold stock for me. I was intimate with them, and they used to question me. That was not for probate duty at all, it was years before. They knew what we were doing, and the turn-over.
805. I understand you had a communication with them, giving an abstract of the properties with which you were connected, the number of acres of land, the number of cattle, sheep, and horses, and the improvements? Yes; I sent it to one of the trustees, and he sent it to Pitt, Son, and Badgery, to make out their valuations for probate duty.
806. Did they accept your figures as their valuation, or did they alter them? They never saw me on the matter.
807. I understand this document was written by you? That was sent to Mr. Hann.
808. That would go to the valuers? I suppose Mr. Hann sent it to the valuers.
809. Does their valuation correspond with the values which you sent to Mr. Hann? I did not send him any values. I sent him the approximate acreage, the numbers of stock, without any values attached to any of them.
810. *Chairman.*] Here is a letter dated 24th March, 1884, from Mr. Hann, in which he says:—"My Dear Badgery,—You and Pitt kindly offered to give me the Mungie Bundie valuation, and if you are still prepared to do this I should be glad. Enclosed I send all the particulars that McDonald sent me to work upon, and I trust they will be sufficient for you." It appears from that letter that there seems to have been an attempt, not to value the thing properly, but simply to make it just high enough, as not to excite suspicion? I cannot answer that question; I can only give you my opinion. Those gentlemen appeared to wish to value the thing up to its full value.
811. This is a letter from R. M. Pitt, dated 28th March, 1884:—"My Dear Hann,—Valuation of the station is as follows:—

								£	s	d.
Land	...	...	...	...	...	...	...	45,000	0	0
Sheep	...	...	...	...	...	...	...	24,000	0	0
Cattle	...	...	...	...	...	...	...	8,000	0	0
Horses	...	...	...	...	...	...	...	1,000	0	0
Runs	...	...	...	...	...	...	...	10,000	0	0
Plant	...	...	...	...	...	...	...	2,000	0	0
								£90,000	0	0

"Do you consider this too low? If so, wire in the morning. I don't think it would realise any more just now, even if as much, but with rain, of course, it would be worth considerably more."

\* \* \* \* \*

Then

Then, in reply to that, Mr. Hann wrote this letter, saying that Mr. Pitt's valuation was altogether too low, and he said we had better put a reasonable value on, so as not to have any question about it. After these arrangements had been made, the following seems to have been agreed upon:—On the 31st March, 1884, the following document was signed:—"We, the undersigned, certify that we have personal knowledge of the runs hereunder mentioned, in which the late Samuel Moffatt Swift was interested at the date of his death, and that the fair and reasonable values of the same and the stock thereon are as hereafter set forth:—Mungie Bundie, Gravesend, and Boolooroo Stations, county of Couralie, Gwydir District, New South Wales. Total original leaseholds, about 190,000 acres, all fenced and improved. Freeholds land, about 35,000 acres, at 30s., £52,500; leaseholds and improvements thereon, £15,000; plant and belongings, £2,500; 60,000 sheep, more or less, at 9s., £27,000; 4,000 cattle, more or less, £8,000; 200 horses, more or less, £1,500. Total, £106,500;"—is it not the case, according to the evidence, that no inspection was made by anyone except Mr. Henderson? I do not know of any other inspectors.

812. Then these people never saw the station? They have a very intimate knowledge of it otherwise, without going to look at it.

813. It is evident that a man who would go on a station would know more about it than a man who did not go; if it is a bad season he sees the effect of it on the station; in your district the rain may fall in patches? Yes; and when Henderson was there, 6 inches of rain fell.

814. But at the time that this valuation was made on 31st March, 1884, upon which application was made for probate no inspection of the run had taken place? No, I do not think so. I do not know of any.

815. It is pretty clear they did not inspect the stations, and that the estimate submitted by one of the valutors was rejected, because it was too low—that is, it would excite suspicion, and do the partners no good? I can help the Committee in this matter. When I was here before, and gave evidence on these valuations, if I remember aright, I stated that I thought the trustees overvalued the properties for financial purposes. This correspondence led up to it. It shows that the trustees were not satisfied with Pitt, Son, and Badgery's first valuation, and to get a higher valuation they wrote to see if Pitt, Son, and Badgery would not reconsider it. They did reconsider it apparently, and that confirms the view I had at the time.

816. If that be the explanation, how do you account for the fact that three years after a man who was on the station valued the land at £2 5s. per acre. You say that the value of 30s. per acre was too high—the reason being that the trustees so valued it simply for pastoral purposes? Yes; for financial purposes.

817. If that be so, how do you account for the fact that when this man went to see it in 1887, he valued it at £2 5s. per acre, which is very much higher still? I can only account for it by his overvaluing the land, as I told him at the time.

818. Then he did not understand his business? I do not think he did.

819. Is this your report made in 1887? Yes.

820. Was that forwarded to the trustees? Yes.

821. At their request? I think not. As far as I remember it was accompanied with balance-sheets.

822. Which balance-sheets? For the year 1887.

823. In that statement the number of sheep were put down at 85,200? Yes.

824. That is in 1884? That was the heavy drought of 1884-5.

825. What is the date of the report? 1887.

826. What is stated there about the number of sheep? It says, "I will commence my report by referring to the return of sheep, cattle, and horses, with which I furnish you copies. *Re* sheep—In the year 1883 I shored 60,204 sheep, and my returns show that 24,657 lambs were marked during that year. After adding 7,480 ewes purchased, and deducting 7,100 sold, there were 85,241 sheep on the properties at the date of the death of the late S. M. Swift."

827. But I see in the statement there were only 60,000? Yes; but you have to go through the whole of this to see this balance between what was there and what was left.

828. How do you reconcile the difference between the numbers you give and the 60,000 in the statement? We lost 24,000 odd in the drought of 1884-5.

829. If these figures were correct as to the number of sheep at the date of Mr. Swift's death, should not that have been the number put in the statement for probate? This is merely a report giving, to the best of my ability, information which I thought they should have. In the middle of the drought we could not possibly say that there were so many sheep there on the date of the man's death, especially as we lost 24,000 that year. It says here, "The losses, which were very heavy from the same cause, numbered 24,393 sheep."

830. What period would that be? During this drought.

831. How long was the drought? It lasted for eighteen months or two years.

832. What I want is that you should reconcile these two statements;—they both purport to be made for the one period; they both refer to the time of Mr. Swift's death;—they should both agree? You see the report further goes on to say —

833. I just want to fix that amount and to get some explanation as to the difference of 25,000;—they both refer to the same date? They could not be on the same date.

834. The date of Mr. Swift's death? It is from shearing to shearing that we calculate as to what we lose.

835. Would not that hold in one case as well as in the other? That is the only way you can number your losses.

836. Would not the same system be adopted for arriving at the number for both purposes? Yes.

837. Between the numbers there is a discrepancy of 25,000, and in this statement the accountant is at a loss to discover it? Here is an absolute loss of 24,393 sheep during the 1884 drought. After the 1884 shearing I started with 53,646 sheep. I want to explain this to the Committee if I can, but to explain it I would have to read it right through.

838. But you have read from the report that there were 85,000 sheep on the run at a stated time? We have to start at a point at the death of a partner.

839. I quite agree with that; but, as you see, the same system must be adopted to ascertain the number for which these figures are made up—that is 60,000? That was on the following shearing.

840. No; it is for the same period? It cannot be fixed in February, 1884.

- J. McDonald. 841. They both refer to the number of sheep on the run at the date of Swift's death? There must be a clerical error somewhere. We shear in August and September. February is in the middle of summer, and we usually take the number of sheep shorn from one year to the other. At the time I was very clear about the whole thing, but I am not good at accounts at any time.  
 8 Sept., 1899. 842. There is a discrepancy of 25,000 sheep? The report says 25,000 died.  
 843. *Mr. Simpson.*] At the time of Mr. Swift's death, as far as your knowledge goes, there were 85,000 sheep on the station, as in your report? That I believe to be correct.

Charles Donaldson recalled and further examined:—

- C. Donaldson. 844. *Mr. McFarlane.*] I understand that you got a number of loans from Mr. McDonald? Yes.  
 845. Were those loans given for any certain period? No.  
 8 Sept., 1899. 846. What rate of interest was paid? I cannot say unless it was a fairish interest—I suppose about 9 or 10 per cent.  
 847. Was there not an arrangement made in getting them? There was, but it has slipped my memory.  
 848. When obtaining a loan, would you make an agreement as to the rate of interest to be charged? Yes.  
 849. Did you do so with each of these loans? I do not know that I made an arrangement with each one. It was somewhere about 9 per cent. as nearly as I can recollect.  
 850. Was any security given? None.  
 851. Are you sure of that? Yes.  
 852. Were those loans repaid? Yes; when I had finished settling up with the selections.  
 853. In selling the selections I understand the loans were ended? They went in as the price.  
 854. They were taken off the purchase money? Yes; I suppose that is what you mean. They were taken as my receiving the money.  
 855. *Mr. Simpson.*] It was part of the purchase money? Yes.  
 856. *Mr. McFarlane.*] Who was it sold to? —  
*Mr. Simpson:* I object to that.  
 857. *Mr. McFarlane.*] Who were the 640 acres sold to? To Mr. McDonald.  
 858. From you to Mr. McDonald? Yes.  
 859. And this was looked upon as security for the money that was borrowed from Mr. McDonald? —  
*Mr. Simpson:* I object.  
 860. *Mr. McFarlane.*] Was not a transfer made to Mr. King? —  
*Mr. Simpson:* I object.  
*Witness:* I object.  
 861. *Mr. McFarlane.*] I refer to a time previous to the sale of the land to Mr. McDonald? —  
*Mr. Simpson:* I object.  
*Witness:* I object.  
 862. *Mr. McFarlane.*] There is an item of £22 10s., said to be a loan which you got for Mr. McDonald;— is that a fact? I cannot say now in what sums; I have no recollection.  
 863. There is some trouble in connection with the Appeal Court about your free selection;—was there not a bill of costs for £22 10s.? I cannot say.  
 864. Do you remember any costs being paid? No.  
 865. No costs to Mr. Vyner;—you said before that you instructed him? Mr. Vyner may have. I cannot say; it has slipped my memory.  
 866. Did he charge you £22 10s. for appearing in that case? Perhaps he did; I cannot say.  
 867. Do you remember borrowing a sum of money at that particular time of the same amount? I cannot tell you what the sums borrowed were exactly.  
 868. Do you remember anything at all about this bill of costs for £22 10s.? No.  
 869. You do not know whether you paid that amount or not? I cannot say.  
 870. You do not remember receiving it? I do not.  
 871. *Mr. Simpson.*] Do I understand that you might have received it, but at this length of time you cannot remember? I cannot remember.  
 872. Was this fourteen or fifteen years ago? Yes; I do not remember.  
 873. *Mr. Thomas.*] Have you had many transactions in that way;—have you paid many sums for bills of costs? —  
*Mr. Simpson:* I object.  
*Witness:* I object.

John McDonald recalled, and further examined:—

- J. McDonald. 874. *Chairman.*] Do you recognise this book? I do not recognise it; but I see it is a written-up book.  
 8 Sept., 1899. 875. It is a copy of what? It purports to be a copy of an account with the Union Bank of Australia, John McDonald & Co., Mungie Bundie.  
 876. Have you any reason to doubt any entry there? I have no reason to doubt.  
 877. You see there is an entry there credited by the bank for £1,814? I see there is.  
 878. There is a memorandum evidently placed there, ex Killarney? Yes.  
 879. Would that be for a shipment of wool? Probably.  
 880. When did the clip of 1883 or 1884 take place? About September.  
 881. Then, of course, that would be the proceeds of the clip of 1884, otherwise you could hardly get that in and obtain the proceeds, because the proceeds of all the wool that went through the Union Bank of Australia was from London? Not necessarily; it might be an advance taken.  
 882. You state that if it was an advance it would not be in round figures instead of an actual amount;— are not advances always in round figures? No.  
 883. Are not advances made by the bank on wool in round figures? No.  
 884. Do you mean to tell me that they advance so many pounds, shillings, and pence, as exhibited in that account? It might be so. You see it is a bill discounted.  
 885. Take your ledger, folio 598, that is the wool account, 1883;—can you tell me from that account how many bales of wool were on the station in that year? Not by this account. 886.



J. McDonald.

8 Sept., 1893.

886. You will find an entry at page 609 of £16 14s. 6d. paid to forwarding agents? Yes.
887. That was for how many bales of wool? 669.
888. There is another entry a little further down of £2 7s. 6d.? Yes.
889. How many bales of wool were there? Ninety bales.
890. How many bales is that altogether? 759 bales.
891. Does that give you an indication of the wool-clip for 1883? Yes.
892. Will you look at the credit side of the account, and tell me how many bales of wool have been credited to that account? On 5th December, there was a credit for 26 bales of wool, 5 bales are skins. Then there is a credit in February, 1894, 262 bales, then there is an entry for 38 bales, and 27 bales and 279 bales.
893. Making altogether 627 bales? Yes.
894. If you deduct 627 bales from 759, would there not be a certain number of bales on hand? Yes; presumably from these figures.
895. But I want it from you—if that is the wool-clip for 1883, and you have told me that you have debited the wool-clip with everything, and the wool-clip was 759 bales? Yes.
896. And you have left to the credit of that wool account 627 bales? Yes.
897. That would leave 132 bales still in hand? Yes.
898. Should not that have appeared as an asset at the time of the testator's death? Yes; I suppose it would.
899. Does this entry, £1,814 18s. 7d., bring it to your memory that that was any portion of that wool? No; I cannot see any connection.
900. Do you not find this entry of £814 to the credit of that wool account? No; I cannot see it.
901. Still you say there was wool on hand at the time of the testator's death? It would appear so.
902. *Mr. Simpson.*] Is that 1884? It is 1883, and February and May, 1884.
903. *Chairman.*] You are sure that there should have been wool on hand at the time of the testator's death? It would appear so. It is a matter for the accountant who prepared the books.
904. Can you tell me roughly what would be the value of the wool at that period from this account? No; the books will give it.
905. From the figures it would roughly be about £14 per bale? Probably; I cannot remember. I will admit that they were worth the average of the rest of the wool.
906. There is an account of a sale in the station-ledger, folio 577, to Seaton? Yes.
907. You sold some sheep there? Yes; a sale of 3,000 ewes at 8s., 10th January, 1884.
908. When were they paid for? They were sold on a bill, which would be due on 10th July, 1884.
909. Then at the time of testator's death that should have been an asset in the estate? It should be, if it was not discounted.
910. Was not the bill discounted on 18th April? Yes. There is an item there, Seaton & Co., £1,200 12s.; that corresponds with this entry.
911. Then it was a debt due to the estate at the time of the testator's death? It was an asset of the partnership.
912. At page 571, do you find that some sheep were sold to G. Cooke? Yes.
913. On what date were they sold? February, 1884.
914. On what date? It seems to be mutilated in the ledger. The credit shows 12th February.
915. Was that prior to the testator's death? Yes.
916. At the time of his death were they a debt due to the estate? They were an asset due to the partnership.
917. They had not been paid for by the 18th? No; they could not be, because it was a promissory-note due in three months.
918. Was it not part promissory-note? Yes; still it might not have been paid for even then, although the sale was made.
919. Will you take the balance-sheet and tell me how much was due by the Gwydir River Pumping Company? I see an item of £912 10s.
920. Was that a debt due to the partnership at the date of the testator's death? I do not think it was.
921. It was signed by you, and this is the balance-sheet for 18th February, 1884? It says:—"Statement of old account." The accountant will probably know whether it is an asset or a debt. That was the value of it to that firm on that date.
922. *Mr. Simpson.*] What was it? A pumping-plant erected by us on an adjoining station. They had an interest in it, and we had.
923. It was part of the improvements to the station? Yes.
924. *Chairman.*] Is it not specially set forth as an asset? It was a fixture, like a woolshed or a fence; you could not sell it.
925. It was not included in the valuation of Pitt, Son, and Badgery? It would go, of course, with the property.
926. It is not included in the property? It is only the interest that should go.
927. It was not included in Mr. Pitt's valuation? No, except generally.
928. There is an amount, P. McCormack, £129, due;—was that due at the time of the testator's death? Yes.
929. Are your run rents paid at the commencement of the year? I really could not tell you.
930. Do you not know, as a matter of fact, that they are? I do not, because I do not pay them; I always get the bank to pay it.
931. When? When they are due. I cannot tell you. I see that I am not overcharged when I look over my books.
932. There is an account of the rents paid for these three stations at that period? Yes.
933. Does that assist you at all? Not a bit.
934. Are not the rents paid usually in advance for the year? Yes.
935. At the time of the testator's death, was there not a large amount of money paid in advance for the current year ending 31st December? Yes, there should be.
936. When the executors filed the accounts, should they not have made a proportionate charge up to the 18th February, 1884? Apparently they should have charged for those six weeks.

- J. McDonald. 937. Should not the portion from 18th February to 31st December have been considered as an asset? I do not know what the executors should or should not do.
938. Did you receive some refunds from the Treasury on 8th March, 1884, amounting to £23? Yes. An amount of £36 7s. 4d. appears here.
939. For what year is that a refund? 1884 or 1885.
940. You could not get a refund in 1885 for 1885? It is a pre-lease refund. Pre-leases might finish any day, and you would only get your proportionate refund from the Treasury.
941. There is an amount to the credit of the banking account? This amount does not agree.
942. But there were refunds? There appear to be refunds granted.
943. Then they should be considered part and parcel of the estate at the time of the testator's death? Yes, apparently, if they were due.
944. At the time of the testator's death had you some sheep on the station belonging to the testator? Yes; if you refer to the report I had this morning you will see the number there.
945. Will you tell me what this document is? It is an account of Swift with John McDonald & Co. It is a debit against Swift.
946. For what? For shearing 5,641 sheep, 19th October, 1883.
947. Whose sheep? S. M. Swift's.
948. Where were they? They were shorn at Mungie Bundie. This was a charge incurred by him for the shearing of them.
949. Can you tell me whether those sheep left the station? I do not know when they left the station in 1883.
950. At the time of the testator's death were not those sheep on the station? I know nothing about them.
951. At that date were those sheep on the station? I cannot answer, they were shorn there.
952. Then were they not on the station? They might have gone off after shearing.
953. Is this your salary account at the time you were managing Mungie Bundie? Yes.
954. What was the rate per annum there? £200 per year.
955. When was that altered? I cannot tell you. At that rate it was £200 per year, according to this account.
956. Will you follow on the account and see? I do not see any alteration up to this point.
957. When was the account altered, and the amount increased? It appears to be some time in 1882, by the look of this ledger.
958. By whose authority was it increased? By my partner's and my own.
959. Was that mentioned in the deed of partnership? No; there was no rate mentioned to be given to any particular man in the deed of partnership.
960. *Mr. Simpson.*] Was it a matter for mutual arrangement? Yes; between the partners. The thing was getting too large, and I would not carry it on.
961. *Chairman.*] Was it altered after the testator's death? No; it is here—1882.
962. But that account was not closed until after the testator's death? Which account.
963. Whose writing is it? That is Mr. Peel's writing.
964. When was Mr. Peel engaged on these books;—was it after the testator's death or before?—  
*Mr. Simpson:* I object.  
*Witness:* I object.

TUESDAY, 14 NOVEMBER, 1899.

Present:—

MR. HURLEY,

MR. MCFARLANE,

MR. THOMAS.

W. M. HUGHES, Esq., IN THE CHAIR.

Elizabeth Swift called in, sworn, and examined:—

- E. Swift. 965. *Chairman.*] Do you wish to give some evidence with regard to the valuation of Mungie Bundie, Boolooroo, and Gravesend Stations? Yes.
- 14 Nov., 1899. 966. Did Mr. Pitt and Mr. Badgery go to Mungie Bundie, Boolooroo, and Gravesend Stations to value them for probate? No; they did not go on the stations, nor had they ever seen or been on them previous to Mr. Swift's death. Mr. R. R. Pitt told me so; and also that they gave the valuations as Mr. Hann directed them to do. Messrs. Pitt, Son, and Badgery acted as commission agents for both Mr. Swift and Mr. Hann privately.
967. Would their acting as agents for Mr. Swift give them a sufficient knowledge of these station properties to enable them to make the valuations? No; they could not make true valuations unless they went on the stations and took inventories of the stock, stores, lands, working-plant, &c. As agents, the business they did for Mr. Swift was selling stock that was purchased privately by him, and was not connected with these stations.
968. Did Mr. Swift put a value on these stations to your knowledge? Yes; I was with him when the late Mr. Goldsbrough, of Goldsbrough, Mort, & Co., offered him £130,000 for these properties. Mr. Swift refused, saying Mr. Goldsbrough could have them for £150,000. This occurred a few months before Mr. Swift's death, and I believe some letters passed about the price, &c., that Mr. Swift would take.
969. Do you know how Mr. Swift arrived at the value he put on? Yes; the 35,000 acres of freehold land he valued at cost price, £2 5s. per acre, about £79,000; 4,000 cattle at £4 per head, £16,000; 95,000 sheep at 10s. per head, £47,000; leaving Crown lands and improvements, horses, working plant, stores, &c., about £8,000; total, £150,000.
970. Would this have been a fair value at the time for probate? Yes; except that sheep and cattle had increased in value, sheep bringing as high as 26s. per head and cattle up to £16. The seasons on these stations up to Mr. Swift's death were exceptionally good, a lot of fat stock having been sold off during the season and all the stock were in prime condition.

971. If these properties had been sold do you think they would have realised the value Mr. Swift put on them? Yes; I firmly believe had these properties been put up to auction they would have realised up to £200,000. At this time there was a great demand for station properties; wool and stock were very dear; there were about 10,000 more acres secured and partly paid for that was not included in the probate; the stud sheep and cattle were usually sold separately; the pumping plant and improvements for running the water about 30 miles over the station was not mentioned in probate; the increase of lambs, about 30,000, would with the land have increased the price considerably over £150,000. I was offered £4 per acre for the purchased land. A syndicate had purchased Furricabad station and sold the purchased land as high as £11 per acre.

E. Swift.  
14 Nov., 1899.

972. Did Mr. Hann or Mr. Croaker inspect these properties for probate? No; they had never been on the stations; they knew nothing of them except what Mr. MacDonald, who was managing, told them. They did not inspect any books, &c., in connection with the working, or value, or expenditure.

973. Do you know if Mr. Lavender, who valued Baden Park for probate, went to the station and took inventories, &c.? No; Mr. Lavender did not go to the station, he had never seen it. Mr. Hann in letters and telegrams told him what values to put on. They put a lump sum of £50,715 on stock and station; they omitted the stores, which were considerable. There was a very expensive working plant, Tangye pumps, &c.; the 1883 season's wool, a large number of well-bred expensive horses, three teams of bullocks with waggons and tackle, furniture, &c., all of which did not appear in probate. They did not go through the station books, and could not possibly arrive at a true value without taking proper inventories.

974. Did Mr. Welman and Mr. Hodnett go to Mimosa and Snubba for the purpose of valuing them for probate? No; they told me they did not. Mr. Welman had never seen Snubba; he was Mr. Hann's partner at this date, and may have passed through Mimosa station. Mr. Hodnett had been on Snubba, working for Mr. Swift, in the years 1876-7, and was on Mimosa, managing, up to November, 1881. They did not take inventories, or go on the stations at all. Mr. Hodnett told me Mr. Hann made out the valuations and he and Mr. Welman signed them. They received £5 each for signing, and Mr. Lavender £10.

975. Mr. Hann and Mr. Croaker made a declaration for the purpose of probate, in which they declare Mr. Hann was half owner in Baden Park, Mimosa, Browley, and Snubba Stations. Can you, as one of the trustees, swear he is not? Yes. I can swear to the best of my knowledge, gained from my husband and from various books and papers in his estate, that P. Hann was not an owner of any part of these stations at the date of this declaration. Mr. Hann never paid any money or supplied any capital to make or constitute him an owner. These station properties absolutely belonged to my late husband, S. M. Swift.

976. Were accounts taken of the supposed ownership claimed by Mr. Hann at the time of getting probate? No; Mr. Hann always refused to show me the amount of capital he invested, or any moneys paid by him. He says there was no partnership deed between him and the late S. M. Swift.

977. Was Mr. Hann called on by the Court for accounts? Yes, by the infants, and a decree was obtained. The ninth paragraph orders that "an account of all dealings and transactions between Samuel Moffatt Swift, the testator, and the defendant, Phineas Hann, as co-partners, should be taken. This order was never complied with. Mr. Hann did not furnish an account of his supposed partnership dealings with the testator as directed by the Judge's decree.

978. Was Mr. Hann asked to prove his ownership of these stations? Yes. The Master in Equity, before whom the accounts were ordered to be set forth, just asked Mr. Hann if he was a partner with the late S. M. Swift, and Mr. Hann swore he was (see Master's notes), and produced only a copy, in his own handwriting, of a supposed memorandum of agreement, as follows:—

MEMORANDUM OF AGREEMENT.

9 February, 1877.

We the undersigned have rented the run called Snubba, on the Gilmore Creek, for the term of six months for the sum of £200, paid equally in cash, and have agreed to purchase stock and depasture them for the joint and mutual benefit of each party. All purchases and expenses to be borne equally, the management and superintendence to be under the control of Mr. Swift. All purchases and sales to be made only with the concurrence of both parties. Where stock are bought on bills which are to be given solely by Mr. Swift, Mr. Hann will provide for and pay his share of the same on due maturity  
S. M. SWIFT.  
P. HANN.

I never saw the original memorandum, and I believe I have papers in Mr. Swift's writing, and Mr. Hann's figures, showing a settlement of the transaction that this memorandum relates to. Mr. Hann paid half the expenses, namely, £208 16s. 1d., leaving due to Mr. Swift £47 16s. 7d. I can find the £208 paid into Mr. Swift's banking account by Mr. Hann's cheque. This is the only document produced as a partnership deed by Mr. Hann. It does not relate to the ownership of any stations.

979. Did Mr. Swift have business transactions with other men besides Mr. Hann? Yes; in stock—before and during the date of this memorandum. He had large transactions with Mr. Downey, the owner of Snubba, and several others. I can produce the settlements, &c., between them. The money for such transactions was found by Mr. Swift, the droving and work was done by the man who would share the profits. When the stock was sold they would settle up, and Mr. Swift would give Mr. Downey a cheque for his share of the profits.

980. Did Mr. Hann do any of the droving or work with the stock for which he received a share of the profits? No; Mr. Hann was a commission agent in partnership with Messrs. Wilkinson, Hann, Minchin, and Lavender in Sydney, Wagga, and Hay. Mr. Hann managed in Wagga, and knew about cheap stock when placed in their hands for sale. Mr. Swift was always a large buyer and seller of stock. His credit at the bank was undoubted, and a bill given by him during all his business career was never dishonoured. He gained certain information from Mr. Hann about stock on which he would make big profits. Occasionally, for this information, he would share the profits privately with Mr. Hann, employing drovers or perhaps give a third of the profit to a man for droving and taking all the responsibility.

981. Did Mr. Swift make much money in buying and selling stock as you describe? Yes; I know of big profits made by him in buying cheap stock. On one occasion, in 1878, he bought about 10,000 sheep for 4s. per head on a twelve months' bill, and while Thomas Hodnett was taking delivery they were sold for 10s. cash, making a big profit, and giving the use of the money for twelve months. Mr. Hann's firm probably received the commission on both sales. Mr. Hann did not share in the transaction. Hodnett bought, sold, and drove them; Swift making a profit of about £3,500 on the deal. This profit formed part of the purchase money for Mimosa station, the rest being made up by £1,500, and £2,500 sent to Hann

E. Swift. Hann as Swift's agent; also a bill of Swift's discounted by Hann's firm for £500. The bill was paid from Swift's account on maturity, other bills were discounted by the same means to enable Swift to pay cash for stock. He would pay the discount and interest. The purchase money for Mimosa came to about £8,100. Hodnett took delivery from Mr. Windeyer's agent, "for and on behalf of S. M. Swift." The delivery note is in Swift's and Hodnett's writing. Hodnett is in the Colony, and could swear to the transactions. He also managed Mimosa for about four years, paying for the improvements, the working expenses, &c., by cheques signed "J. Hodnett, pro S. M. Swift." Mr. Swift found the money to meet these cheques. Hann did not find or pay any part of the expenses.

14 Nov., 1899.

982. Have you the documents showing the purchase and workings of the various station properties owned by your husband? Yes; these documents, books, accounts, &c., will be handed in to the Committee by Mr. Sandell, given to him for that purpose by me, and also to prove to the Committee that Mr. Swift, at the time of his death, was the absolute owner of the station properties mentioned for probate, he having paid all the purchase-money and for working, expenses, &c.

983. There was an account opened at the Bank of New South Wales; did Mr. Hann pay any capital into that account? No; I may refer to Mr. W. T. Ball's evidence on that point.

984. Did Mr. Hann and Mr. Croaker, as trustees, without consulting you, as co-trustee, set forth in the application for probate that Hann was the half-owner in Mimosa, Baden Park, Browley, and Snubba Stations (about £50,000 value); also that J. McDonald was half-owner in Mungie Bundie, Boolooroo, and Gravesend Stations, value about £50,000 without accounts being taken, or substantial proofs, deeds of partnership, &c., being produced to prove their ownership? I was not consulted, and no accounts were taken at the date of their declaration for probate. No proofs of any kind were ever produced to show or support J. McDonald's and P. Hann's claims to these properties, only Mr. Hann's and Mr. Croaker's oath in their declaration to obtain probate. I resented those claims, knowing they were not legitimate; and I offered to Mr. Hann to employ and pay the late Mr. Durham, accountant, to go through all Mr. Hann's accounts, &c., and all Mr. Swift's accounts; and that, if Mr. Durham found that Mr. Hann and Mr. McDonald were entitled to even more than the half they claimed, I would willingly join in signing over to them all property found to be theirs. I also, as trustee, wanted to be sure that their claims were just. Mr. Hann and Mr. McDonald refused this offer, and relied on the statement for probate to support their ownership.

George Sandell recalled and further examined:—

G. Sandell.  
14 Nov., 1899.

985. *Chairman.*] Mrs. Swift, in her evidence, states that Hann was never a partner of her husband, that Pitt, Badgery, & Co. never went on to the stations to value them, that Hann never paid any money into Swift and Hann's banking account, and that that portion of the estate is under-valued for probate. She also states that Mr. Swift had an offer from Mr. Goldsbrough of £130,000 for Mungie Bundie, Boolooroo, and Gravesend, which properties were afterwards valued for probate at £106,500. In your former evidence you quoted from various letters, and stated your opinion that they showed that Mr. Hann was not a partner with Mr. Swift in those properties;—what is your opinion now? I am still firmly of that opinion.

TUESDAY, 21 NOVEMBER, 1899.

Present:—

MR. HURLEY, | MR. McLEAN.

W. M. HUGHES, ESQ., IN THE CHAIR.

Phineas Hann sworn and examined:—

P. Hann.  
14 Nov., 1899.

986. *Chairman.*] Were you one of the executors of the estate of the late S. M. Swift? Yes.

987. Did you and your co-executor, the late Mr. Croaker, file an affidavit for probate on 5th April, 1884? We did so, but I cannot tell the date.

988. In your application did you give an account of the properties in which the testator was interested? Yes.

989. In the minutes of evidence submitted to Parliament in the second session of 1898, do you recognise printed copies of the statements submitted by you? It is six years since I looked at the documents, but I believe these are the same.

990. Do you recognise balance-sheet "B"? I recognise it. As far as my memory serves me I believe the figures to be correct.

991. Who valued Baden Park station property? Mr. James Smith Lavender, recently dead, and the manager, Mr. Webb, together.

992. Was Mr. James Smith Lavender a late partner of yours? Yes, previous to my joining Mr. Swift.

993. Was Mr. Webb an employee on the station? Yes, he was the manager.

994. Both of these valuers were personally known to you? Yes.

995. Do you recognise this letter-book, No. 11? Yes; I should take this to be the partnership letter-book. The letter at page 10 is in my writing. The whole of the letters were written by me.

996. Did you write the letter dated 26th March, 1884, page 377, to Mr. Lavender? Yes.

997. Will you read the letter? Yes, it is as follows:—

My Dear Lavender,

Wagga Wagga, 26 March, 1884.

I have your message re Baden Park valuation, and have replied, offering to send all particulars by wire if you can arrange with Webb to act as valuator with you, and I will send all particulars and my views by wire. We may differ a little over values, but the Commissioner does not dispute over valuation for stamp duty. It is only to see that we do not under-estimate and defraud the revenue. My figures may appear large, but I consider the place worth it, and, although Webb may not think there are so many stock on it, still they ought to be there and have been lost since shearing. I do not like to think there are less than those I give the numbers of. I enclose my statement of run and stock, and have made the others from Mimosa, Browley, and Snubba exactly the same. H. Wellman and T. Hodnett have approved the valuations, and Fitzhardinge drew up the necessary valuation forms and appended to the statements. Kindly hurry the thing through for me, as I am so much more backward than I expected. I thought everything was ready for being done the moment I went to Sydney, and, when I begin to move in the matter, find that really nothing has been done, and that it will be fully a week before they are ready for us in Sydney.

998. Will you look at this press copy book containing telegrams sent to station? Yes. These are the telegrams I used to send to the station.

999. Will you turn to page 175 and tell us if the impression of the telegram there is a copy of one written by you? Yes; it is a telegram sent to Henry Webb:—

Inspect wethers, and if good and real bargain, close for them, provided offer right without words, approved bill, but binding sellers; accept executors or my own bill. This purchase must be made only subject to your own position for lambing and carrying extra sheep. Do not want risks, only certainties. See Lavender about particulars of run for valuation. He will explain.

1000. Was the telegram at page 177 written by you? Yes. It was as follows:—

Baden Park, known as Moana Blocks S and T, Moira Plains, A. Worked together as one station, comprising an area 208,000 acres; rental, £76 per annum. Fenced and improved; divided into eleven sheep paddocks and three small paddocks; one well, twenty-four large and small tanks, house, wool-shed, tents and outbuildings; working plant, including horses worth £1,800; stock, 31,000, as follows:—3,141 aged ewes, 7,032 4-tooth ewes, 9,124 2 and 4-tooth ewes, 4,038 2-tooth wethers, 6,948 weaners, 200 ration sheep, value £50,000, with everything given in; 100 bales wool, £1,000.

1001. Whom did you send that to? Mr. Lavender.

1002. In that telegram you said to Mr. Lavender, who was a valuator, the details, in your opinion, of the value of the station property? Yes.

1003. Do you think that was a fair and disinterested way of obtaining a proper valuation? Yes.

1004. Will you look at this document? Yes; it is evidently a copy of Lavender and Webb's valuation.

1005. Were there no more detailed statements provided as to the number of sheep and the extent of country? I do not suppose so. This telegram follows my letter to Mr. Lavender, and apparently they based their valuations upon my figures.

1006. Does this form the basis of the statement submitted for probate, being a telegram sent by you to Mr. Lavender, who was not on the station? Yes; and there was also the manager of the station, Mr. Webb, who had a more accurate knowledge.

1007. Do you admit that the data upon which the valuator formed his opinion was supplied by yourself, and that he did not go to look at the station himself? No; but he had sufficient knowledge of the property without going to look at it.

1008. How long would a valuator take, to properly inspect the property, to go over it and value it? That is a thing which is never done, as far as my knowledge is concerned. It would entail too much expense.

1009. If you were going to lend money on the mortgage of a station, what would you do? Then I would send a man out. It would depend upon the amount he required, and what I knew myself of the property.

1010. Would you take the borrowers or an interested party's statement of the assets? It would depend upon what was required.

1011. You do not deny that you were an interested party? Yes. I was a partner and an executor.

1012. Could the valuator have inspected the whole property of over 200,000 acres, with 188 miles of fencing, and a large number of sheep, in ten days? Yes; but as he had to go from Hay it would take him rather longer.

1013. Could it be done in a week? No; not if he went into all the details which you mentioned.

1014. Supposing you had to value a property of the same kind, how long would it take you? It would depend upon how far I had to go. If you are on the place, and you could be driven around very quickly, you could do it in three or four days; but if you are going from Hay it would take three or four days' driving to get there.

1015. *Mr. McLean.*] What means would he have in a case of that kind of discovering the number of sheep and cattle? They would have to be yarded, or he would accept the manager's books. In a case of that kind the manager's books would be taken, because he keeps an accurate account of the number of sheep in each paddock.

1016. *Chairman.*] Is this Mr. Roope's account for preparing the valuation? Yes.

1017. Your telegram to Mr. Lavender on which he founded his valuation was dated 26th March, 1884, and on the following day it appears that Mr. Roope attended on Mr. Lavender to take instructions to prepare the valuation of the station, &c.? Yes.

1018. Apparently no interval at all elapsed—Mr. Lavender only awaited your instructions? Yes.

1019. Having done that he just prepared his valuation as you stated it? Yes; but he had Mr. Webb there to verify the statements and assist him.

1020. Do you say that you could not make the valuation yourself in less than four days? That is only if I went on the spot and counted the sheep. Mr. Webb was there also, and he gave me the statement that the sheep were in the paddock. It was not necessary to count them.

1021. This valuation does not supply any details, it accepts your system as correct; that is verified by the fact that all the details coincide, except that he valued the property at £50,709, while you valued it £50,000? Yes; Mr. Webb was there with him at the time. He would be able to supply the particulars, and verify my statement. Then Mr. Lavender would act upon it.

1022. *Mr. McFurlane.*] How did you arrive at the figures which you gave? I got them previously from Mr. Webb, who was manager of the station.

1023. Then Mr. Lavender took Mr. Webb's figures? Yes.

1024. Mr. Webb, being one of the valutors, he would be practically accepting his own figures, and not yours? Mr. Webb would verify them as the figures which he supplied to me previously.

1025. Then, after all, they were Mr. Webb's figures? Yes.

1026. What was the object in supplying these particulars to Mr. Lavender? Simply to get the valuation completed.

1027. *Chairman.*] Were you not aware that Mr. Webb was also one of the valutors? Yes; I stated in my telegram that he would act and value with Mr. Lavender. I had not appointed him.

1028. Was that before or after you furnished Mr. Lavender with the particulars? It was evidently on the same day.

1029. Did you know when you furnished the particulars that Mr. Webb was a valuer? I cannot tell you whether or not Mr. Lavender had replied to me, saying whether Mr. Webb would act or not. Every document I had was filed in the Equity Court.

- P. Haun. 1030. As an executor, were you aware that the valutors were appointed to value the property before you furnished those particulars? Mr. Lavender was, because he was appointed at my instigation.
- 21 Nov., 1899. 1031. Were you not aware that there would be two valutors? It is usual.
1032. In furnishing those particulars to Mr. Lavender were you aware that the second valuer was appointed? I do not think so, but Mr. Webb, being on the spot, we took advantage of that fact, if he would accept the position. Mr. Webb accepted the position without payment.
1033. If he accepted the position of valuer there would be no necessity for you to furnish particulars, as Mr. Webb would know the value? I thought there was a necessity for it, and I think so still. Mr. Lavender was the one whom I had asked to act.
1034. *Mr. McLean.*] As a matter of fact, the valutors were appointed by the executors? Yes.
1035. And you were responsible for the valuation submitted to the court? The valutors are responsible for that.
1036. But you were responsible to the court? Yes, necessarily so; but the valutors were independent persons, acting independently to us.
1037. *Chairman.*] Your manager would hardly be likely to say anything to Mr. Lavender which would be contrary to your interests? Mr. Webb was a very conscientious man, and you could not turn him away from his opinion.
1038. But would he not lean a little your way? Perhaps so; but I would not like to say so.
1039. For instance, if his memory failed him; and he omitted to mention any asset, that would not appear in the valuation, because Mr. Lavender relied upon yourself and upon Mr. Webb's statement; therefore, if either of you forgot anything it would not appear in the statement for probate? It would not.
1040. Is this the original horse return of Baden Park from January, 1884, to 1885? I suppose so; it is in Mr. Webb's handwriting.
1041. You see that he states there that on the 1st January, 1884, there were ninety-four horses? Yes.
1042. Apparently, on the 18th February, 1884, there were no horses there at all? They come in as working plant.
1043. Were there any horses sold between the 1st January, 1894, and the date of the testator's death? I do not know.
1044. Is this a return for the year ending 1885? It says, "sold to date fourteen."
1045. Ought there to have been any horses on the station at the testator's death? Of course, there were.
1046. How many? I do not know whether there were ninety-four or eighty.
1047. But there might have been? Yes.
1048. In the statement that you gave to the valutors, are there any horses disclosed there? They would come under the head of "working plant."
1049. Do you sell your working plant in this manner;—this account which I show you proves that these horses were sold shortly afterwards by an agent at £7 10s. each? You puzzle me. I do not know anything about that. I do not believe one of the horses mentioned in this account were on the station. This account mentions the Hunter, which was a good many hundreds of miles away from Baden Park.
1050. Were the cattle included in the working plant? They would come in under the valuation of £1,500.
1051. Are there any particulars given of that? No, because we lump them.
1052. Which £1,500 do you mean? Working plant, wool, sheep, &c.
1053. Do you mean to say that cattle and horses are included there? I take it that they were included in those valuations.
1054. Do you say that it was unnecessary to value them separately? I think so.
1055. If I show you your valuations which you filed on the application for probate, where the number of sheep and horses was given, do you say that was unnecessary? Yes.
1056. For accuracy, would it not have been desirable to have given the details correctly? It never was done. When selling stations we sold the station for so much, and the horses and cattle and everything were given in.
1057. In valuing a partnership estate, is it not necessary for future reference that everything should be given? That might appear to be the case afterwards, but I did not think so at the time.
1058. You admit that eighty head of cattle were not included in the valuation? No; I say they were included in the total valuation.
1059. What was the homestead worth? I cannot tell from memory, but I dare say it would be worth from £300 to £400.
1060. Do you call cattle working plant? Yes; teams of bullocks and milking cows.
1061. What do you call working plant besides horses and bullocks? Drays and implements, and everything about the place.
1062. Did you have a very large stock of drays? Only just what was necessary for working the station. We sometimes had to get relief drays there for drovers.
1063. Do you say that the reason why the cattle and horses were not specified was because the whole thing was put in as one lot? Yes; it is a sufficient valuation.
1064. *Mr. McLean.*] Was this station primarily a sheep station? Yes.
1065. Did you breed cattle for sale on the station? No.
1066. Whatever cattle were on the station were there for the purpose of working it? Yes.
1067. Were they working bullocks and milking cows? Yes.
1068. Did you breed cattle for the market? No.
1069. Did you breed horses for the market? No.
1070. Were the horses and cattle on the station included in the valuation as working plant? Yes.
1071. *Chairman.*] When you found that property had been omitted from your statement filed for probate, did you take steps to supply an amended account? I do not remember anything of the kind. I do not remember any omissions.
1072. Do you not recollect the fact that you filed, or caused to be filed, a second statement? I do not for the moment.
1073. Mr. Lavender's valuation is £50,709; yours is £50,000;—how do you account for that difference? Simply because I thought £50,000 was a sufficient sum.
1074. Was it owing to any action on the part of your co-executors or co-trustees that any amendment, if any, was made? I do not know anything about it.

1075. Was the valuation, as agreed upon by yourself and Mr. Lavender, acceptable to the other executors? Yes.

1076. Will you look at the letter on page 398 of the letter-book and see if it was written by you? Yes.

1077. Is this an extract from the letter:—

I find you did not estimate the value of about 100 bales of wool that Webb thought was on the place, and, as your views exceeded mine by about £700, I am going to leave the wool out of the schedule altogether.

? Yes; that is right.

1078. How do you account for the omission altogether of the 100 bales of wool? Simply because I thought the valuation for the whole property was too high.

1079. Is that the only reason you give? Yes.

1080. You would hardly say it is the custom for an executor in a partnership estate to amend the valuator's statement because he thinks it excessive? I do not know; it was my first experience, and I thought I was acting within proper limits.

1081. Was the Court made aware of this difference of opinion between yourself and Mr. Lavender in respect of this item of 100 bales of wool? I should say not.

1082. How much was wool worth per bale then? About £10.

1083. Did you leave those 100 bales of wool out of the statement filed for probate? I think so.

1084. Was any wool disclosed at all in the application for probate? I cannot say.

1085. Is there any wool included in any of the probate statements? There is no wool included in this printed statement; all wools were at that time sent off.

1086. Is there not a letter dated 25th April, 1884, sent to Mr. Webb regarding the wool? Yes.

1087. You knew there was some wool on the station? Apparently about 100 bales. The letter mentions "about 100 bales, or 10 or more tons, of scoured wool, which you tell me is in Sydney."

1088. If you look at the statement of assets and liabilities of 19th February, 1884, you will find that there were 128 bales of wool on the station, and there was wool in transit—264 bales of wool consigned to the New Zealand Company;—how do you account for that? The wool consigned to the New Zealand Company was wool on which certain advances have been got.

1089. Was it a partnership transaction? Yes.

1090. Was Swift's estate credited with its quota of that? Yes.

1091. There are 128 bales—that is, the exact number on the date of the testator's death—which were not filed? That is the 100 bales which you have been talking about, and they are not included.

1092. Is that the exact number? I do not know.

1093. Will you swear that there were not 128 bales? No.

1094. Is this document produced a letter written by Mr. Pitt to Mr. Hann, about this station, on the 9th April, 1884, offering £50,000? Yes; that is right. He says in the letter:—"I mention £50,000 as the probable price."

1095. Did you send him in a telegram in reply? I do not know.

1096. Why did you not sell for £50,000? It was shortly after Mr. Swift's death, and we thought the property was worth more at the time.

1097. Did you not put it down at that value for probate? Yes; but you always expect to get more for a property.

1098. Did you send the telegram produced to Mr. Pitt? Yes; I state in that telegram that I want £60,000 for Baden Park.

1099. Is that dated the day after his death? Yes.

1100. And you placed it in the probate statement at £50,000? Yes.

1101. Is this one of the station letter-books? It is marked, "Private letters."

1102. At page 157 do you not state that Baden Park was worth £42,000, and the Moira Station was worth £21,000; that would be a total of £63,000? That was twelve months earlier.

1103. I am speaking of the valuation made at the time of the testator's death in February, 1884—nine months previously you valued it at £63,000, and you valued it for probate at £50,000? Yes; I do not see anything particularly wrong in that.

1104. Would not that point to the fact that the valuation you filed for probate was not an over-valuation? It was an over-valuation as matters afterwards turned out.

1105. At the time of testator's death was that property over-valued at £50,000? It was, with the number of sheep then on it.

1106. Although you omitted to include the wool? Yes.

1107. Although you valued it to Mr. Pitt a week or two afterwards at £60,000? Yes; in order to get as much as I possibly could.

1108. Did you ask £75,000 for it? Not within my knowledge.

1109. You made a valuation at Baden Park stating the number of sheep shorn at 36,000 with cattle, and the number of horses not wanted for working the station, which Webb thinks ought not to be given in—price, £65,000;—that was made shortly after the testator's death? I cannot tell you for what purpose I might have written it down. I cannot say what my actual valuation was.

1110. Did you ever write to Mrs. Swift and say, "You are quite right about Baden Park being a valuable property, or rather it will be, and it is worth £10,000 more than I put on it"? I do not remember it.

1111. That letter was written on the 13th October, 1884? Of course I wrote it, if it is in my handwriting. Naturally enough I would, to all outsiders, keep the property up to the highest value, and try to get the most for it.

1112. Do you consider that Lavender and Webb's valuation was a *bona-fide* one? Yes.

1113. It was not made to deceive? I do not see where the deception is.

1114. You omitted the wool? Yes; because I believe the properties were fully valued.

1115. But that was concealed? It was not shown.

1116. We will now take Mimosa West Station;—is this a valuation of the station? It is my handwriting. I do not know whether it is my valuation, but I assume it is.

1117. How many acres of land are given? 960 acres freehold.

1118. Does that contain the whole of the land in which the station was interested? I assume so.

1119. Are you sure? No.

1120. But that is in your handwriting? Yes.

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21 Nov., 1899.
1121. Who valued it? Mr. Welman and Mr. Thomas Hodnett.
1122. Was Mr. Welman a former partner of yours? He had been a partner in many transactions with me. We had a station together.
1123. Was a Mr. Hodnett a station employee? No; he was manager of Mimosa West when we first bought it.
1124. Did you write out the valuation? This is my handwriting.
1125. Did you write out the valuation, and did they sign it? I cannot tell you how it was done. I cannot tell whether it was based on my figures or theirs. They each knew the property.
1126. Did they inspect it? I cannot say that they went specially to inspect it.
1127. Was it done in the same manner as the Baden Park valuation? Yes.
1128. Did you pay the valuers anything for valuing? Yes.
1129. Is it included in the accounts? I think so.
1130. How much was paid to them? I fancy somewhere about 5 guineas each.
1131. Was a man named Henry Austin employed on the station? At one time he was a drover and then a station employee.
1132. Did he take up a selection on that run? Yes.
1133. How many acres? I think 300 or 400 acres.
1134. Was that taken up in the interests of the station? In his own interests, I think.
1135. Are you sure? Yes.
1136. Did you have any agreement with him? No; only to lease his land.
1137. Is this agreement produced the one you had with Austin? Yes; an agreement to lease.
1138. Was £100 drawn by you from the bank at Wagga on 24th January, 1884, to pay the deposit of 5s. an acre on that selection? That would be lent to Austin.
1139. Under that agreement? No.
1140. Was it to take up that selection? Yes, for himself.
1141. In the interests of the station? The station would have the grass.
1142. Was it taken up in the interests of the station? I do not see what you are driving at. I lent the man money to take up the land. I lent it from the station money so as to have the use of the grass.
1143. When you valued Mimosa run, did you include the amount which Austin owed? I do not know whether he owed it.
1144. Did you lend him the money with the idea of getting the selection for yourself? No.
1145. Did you do so in any of those cases? Certainly not.
1146. You made an agreement with Austin on the 10th March, and you had advanced the money to take up that selection on 26th January, 1884—on the very day that Austin paid the Land Agent? If I did so it was with the knowledge of my late partner, Swift.
1147. Was it taken up in the interests of the station and with the object of belonging to the station? You may put it that way if you like. There was no liability on the man's part. If he wished to keep the land it was his.
1148. Was he an employee? He might or might not be. I cannot tell from memory.
1149. Was Gore a station employee? Yes.
1150. Did he take up a selection of 640 acres on your holding? He took up some; I think it was 640 acres.
1151. Did the station advance 5s. an acre to take up the selection? I think so.
1152. Was that included in the probate statement? Not that I know of.
1153. Then it was omitted? I do not see how it was omitted. One could not include a thing which one had no claim on.
1154. You paid the money for it? You might lend a man money; but if you look upon it as a doubtful debt you may never get it.
1155. Was it transferred to the Bank? Yes, afterwards.
1156. Is this the agreement with Gore? Yes; it was signed by Swift and myself.
1157. Did Alexander Robert Orr take up land on the station? He took up land for himself.
1158. Did the station advance £80 to Orr on 2nd May, 1884? Very likely.
1159. Was that included in the probate valuation? It was not necessary on that date.
1160. Did Pursor take up a selection in the station's interests? He took up a selection for himself.
1161. Did the station provide the cash for the deposit? I think so.
1162. Was that included in the probate valuation? Not that I know of.
1163. Was it omitted? It had no right to be there.
1164. Did the station provide the funds? Yes; it was one of the things for which there was virtually no asset. The grass was the asset at that time.
1165. Did Pursor leave his selection to you by will? Yes; and I transferred it to the station.
1166. Did the station get it afterwards? Yes.
1167. Did Cody take up a selection? Yes.
1168. What was he? Station manager.
1169. Did he take it up in his own interests? Yes.
1170. Did he provide the money for the selection? I think it was lent to him like the others.
1171. Who carried out the improvements on any of those selections? I do not know. Cody's selection fell through. Pursor's became mine on his death, and then the improvements were carried out.
1172. Prior to his death, who carried out the improvements? I suppose he did.
1173. Will you swear that was so? No. You are taxing my memory about things which I did not do myself.
1174. Who carried out the improvements on Orr's selection? Orr and Cody together would do it.
1175. Who provided the funds to pay for the improvements? I cannot tell.
1176. How is it you are unable to tell? It is so long ago, and I have not been able to look up these particulars in any way.
1177. Did a man named Behan take up a selection on the station? Yes, 640 acres.
1178. Who provided the funds to pay for the deposit? It was a loan to Behan from the station, which was to have the benefit of the grass.
1179. Was he an employee? No, he was a labouring man.
1180. Was he engaged by the firm? No.



1181. Did a man named Yourall take up a selection in the interests of the station? I forget him.
1182. Was he not a station employee? He might have been.
1183. Is this a station ledger which I produce? Yes.
1184. Do you see the wages account? Yes, I see he was engaged as a boundary-rider on the station. He was paid £1 per week in 1882.
1185. Did he take up a selection on the 8th March, 1883? I do not know on what date he took it up.
1186. His land, if it was taken up in the interests of the station, was not included in the statement in the application for probate? I do not see how it could be.
1187. Was it not taken up in the interests of the station? The station might have lent the man the money.
1188. Then it was a debt due to the station? I do not call it a debt due when you get the grass for it. It was one way of obtaining rental beforehand, if you took the risk attached to it.
1189. Was there not a refund in that matter? I do not know; there might have been.
1190. You got the value back for the estate ultimately; but did not pay probate duty? Perhaps not.
1191. Was it concealed in the statement for probate? There was nothing to show.
1192. Did you say that Mr. Gore's selection was not taken up in the interests of the station? I do not see what you mean beyond what I have already explained.
1193. Was Gore's selection taken up *bona fide*? I think so.
1194. Will you swear it was? He had the option to keep it if he wished.
1195. Was it *bona fide* on the part of Gore? You had better get him to answer that.
1196. Do you say that all those selections were taken up, and the money advanced to those selectors for the grass rights? Yes.
1197. Were they all employees? Some of them were, and some of them were not.
1198. Who were those who were not employees? Behan, Hanson, and some others.
1199. Was Mitchell an employee? No.
1200. Was he a servant of yours? No.
1201. Was he a relative of yours? He might have been.
1202. What was Hanson? He has been a drover of mine since then, and he might have been before.
1203. What was he at the time he took up this selection? I do not know.
1204. If Gore has stated that he took up his selection *malafides*, would you contradict him? I would contradict him to a certain extent.
1205. If he stated that he did not take it up in his own interest, but in the interest of the station, and that he had no knowledge of taking it up in his own interest? I do not know what he may have said.
1206. Do you say it was not taken up in the interest of the station? I say it was taken up by Mr. Gore, and he had the power of keeping it if he wished.
1207. Here is an agreement to lease for ninety-nine years, at a rental of £10 per acre, the station to do all the improvements and pay all the annual instalments;—do you say now that the selection was not taken up in the interests of the station? It was taken up for its grazing properties.
1208. Did it ultimately come into the station? Yes.
1209. Did you give him any extra consideration beyond the amount expressed in this lease? I do not know.
1210. *Mr. McLean*] Were the affairs of this estate of S. M. Swift's ever finally adjusted? Yes.
1211. What was the net amount realised in connection with the whole of the properties? When I say finally adjusted I mean that the whole thing has been gone through in Equity by the Master, and an award given on it. The properties, Mimosa West and Baden Park, were taken over by the Bank of New South Wales in consequence of certain actions of Mrs. Swift. Those properties are still in their possession, and how they stand at present with regard to liabilities I cannot tell you.
1212. Have they passed away from the control of the executors? Yes, at that time.
1213. Have all the other station properties passed away? Yes; Snubba and Browley were sold by me, and the proceeds and all matters accounted for in the accounts passed by the Equity Court. Mungie Bundie was sold by order of the Union Bank for nonfulfilment of conditions by J. McDonald & Co. J. McDonald was partner with Mr. Swift in that property.
1214. Are you prepared to say what was the net amount the estate realised to the executors? Not without going into the figures. We are very much deficient. The estate is insolvent.
1215. You swear that the estate was an insolvent estate? Yes; and there were no assets. I am positive on that point. It would not have been so if Mrs. Swift had acted in a different manner. She would have had some assets for herself, but she ruined my assets, and the estate is insolvent.

THURSDAY, 23 NOVEMBER, 1899.

Present:—

MR. MCFARLANE, | MR. McLEAN,  
MR. THOMAS.

W. M. HUGHES, ESQ., IN THE CHAIR.

Phineas Hann recalled and further examined:—

1216. *Chairman.*] Will you look at station press-letter copy-book marked "S" No. 1, at page 4, and say if those are the particulars of Browley valuation? Yes.
1217. Was that run inspected by the valuers? No; it was just the same as the others.
1218. Who valued that property? I do not know; but I think it was Mr. Welman and Mr. Hodnett. I am not certain. Mr. Welman was a grazier; Mr. Hodnett had been a station-manager of ours. He was then a large sheep dealer.
1219. Is that the valuation you filed on your application for probate, which you swore to on 5th April, 1884? Yes.
1220. Was the land valued therein at 30s. per acre? Yes.
1221. Ten thousand five hundred sheep, at 5s. 6d. per head; two horses, £16; six head of cattle, £18; and the furniture and sundries at £100, making a total of £13,317 10s.? Yes.

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1222.

- P. Hann. 1222. Will you now look at the station press-copy letter-book, No. 11, page 418;—on 3rd April, 1884, you wrote to Mr. S. Payne, and therein stated that Messrs. Macks have bought Browley? Yes.
- 23 Nov., 1899. 1223. At page 419, is that your letter to Messrs. Mack on the same date, in which you say, "In accordance with your wish in yesterday's second telegram, I have to-day had prepared by Messrs. Fitzhardinge and Coleman, the agreement for the purchase and sale of Browley property and stock to you"? Yes.
1224. Then Browley was sold by you on the 2nd April 1884—that was on the day before you sent this letter? Yes.
1225. That was three days prior to your application for probate;—how do you account for that? The only way I can account for it is that that was an assumed proper valuation of the property, and the other was the result of an actual sale. The sale was made after the valuation was made. I naturally got as high a price as I could for any property.
1226. Three days before you filed your application for probate the property was actually sold? Yes.
1227. Was that amount really what ought to have been tendered in the application for probate? I do not know. Of course we have different views on the matter.
1228. Will you look at document 194; it is the sale note of C. J. Griffiths & Co., £2189s. 5d., commission for the sale of Browley Estate? Yes.
1229. So that on the 4th April the transaction by the agents was completed? Yes.
1230. £14,506 16s. 9d. was the price that Browley was sold for, on which commission to the agents was paid, and the valuation for probate was £13,317 10s. 3d.? Yes.
1231. This is a letter of yours, 2nd April, 1884, to Mr. Webb, the manager, in which you say "I am glad to say that this morning I have closed for the sale of Browley, and this will ease me another £15,000"? Yes. For the moment I cannot think of all the particulars of the sale of Browley. I have an idea that there was another piece of land included, although the documents only show the same acreage. The land was sold at 5s. per acre more than it was put down in the valuation for probate.
1232. How do you account for that? I got a better price for it.
1233. How do you account for filing a value of 30s. per acre when you sold the land for 35s. per acre two or three days beforehand? This valuation was already made, and was in the hands of Abbott and Allen. They knew of the sale, and they did not say anything about it. I did not think any more of the matter.
1234. Mr. Thomas.] Would the valuation have been in days before the 5th April? Yes.
1235. I presume you would have assisted the valuers? I would give them all the particulars.
1236. Did they examine the property previously? No; but they knew it.
1237. Was that previous to the 2nd April? Yes. We gave 30s. per acre for the property, and I suppose they considered that was its full value.
1238. Had the valuation been sent in for probate a week before you sold the property? Yes, and perhaps more. My instructions from the Bank of New South Wales were to get everything hurried through and prepared as fast as I possibly could, because it was necessary to ask for a large advance to carry on Swift's estate, as well as the estate of Swift and Hann. It was a very large transaction, and it was necessary to hurry. I was doing it as fast as possible to get probate granted, so as to be in a legal position to act.
1239. Mr. McLean.] I notice that these balance-sheets and this affidavit applying for probate were sworn before Mr. Fitzhardinge, of Wagga, on the 5th and 6th April, and balance-sheet "B" is sworn on the 5th day of 1884, which, I suppose, would be April;—were the balance-sheets and valuations prepared some days prior to the dates upon which the affidavits were sworn? They were necessarily prepared prior to that. These were, I suppose, the dates on which I swore to them.
1240. Who prepared the balance-sheets, sworn to on those dates? I suppose I must have done it myself, with the assistance of a clerk.
1241. Are you quite sure on that point? I am not; but if the documents are in my handwriting I admit it at once.
1242. Do you remember going to Fitzhardinge's office to swear these? He was our solicitor, but I do not recollect the exact circumstances. I would necessarily go to him. I remember having a dispute with Abbott & Allen, who told me I had no right to employ Fitzhardinge, as they had been appointed solicitors to the estate. I replied that he had always acted for us, and that when it was necessary to do anything for Swift and Hann I would employ him.
1243. You cannot say for certain that you prepared these statements yourself? Not of my own knowledge, now, but I daresay the books show it.
1244. Have you any information in the letter-book before you that will show the actual date upon which you did prepare this statement and valuations in reference to the Browley property? Only the date 26th March, 1884. That is the date on which it was copied into this letter-book.
1245. Chairman.] The idea that the property was worth 35s. an acre did not occur to you for the first time on 15th March? No. Naturally, if I saw a chance, and thought the buyer would give 40s. an acre, I would have asked for 40s. an acre.
1246. You do not mean to say that if you had known that you were going to sell the place for 35s. an acre you would swear the valuation at 30s. an acre? I do not suppose I should, because there are other matters where I had made actual sales, and where I gave the actual results of the sales.
1247. It is clear that you put in a statement valuing the land at 30s. an acre, it turned out that you were undervaluing the estate, and it was sold for 35s. an acre;—on the 6th April you swore the valuation at 30s. per acre, and you never said a word that you were in error? It never once occurred to me.
1248. Were all the sheep which were included in the valuation sold to the Macks? From the statement, apparently not. There are 10,500 sheep in the valuation for probate, and 8,503 were sold to the Macks.
1249. How do you account for that? I do not know whether they died or not; I do not know what became of them. I know they were very poor sheep.
1250. You filed an application for probate in which you valued the run at £13,317 10s., and you sold the run for £14,762 13s. 11d., and in this increased price there was not included 2,000 sheep, which were put down in making up the valuation of £13,317? I do not know what became of them.
1251. You do not deduct the commission that was payable to the agent?
1252. Here is a letter by you to Mrs. Swift on the same matter;—you say: "I have disposed of Browley to the Messrs. Macks; fortunately this will give the estate £15,000 more"? Yes. The unfortunate people who went into the station lost by it.

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1253. Now, with regard to Snubba Station, is that your valuation? Yes.
1254. Was that written by yourself? Yes; on the same date, 20th March.
1255. Who valued this property? The same valuers, I think.
1256. You prepared it yourself practically? I wrote out this statement.
1257. Did they prepare the valuation, or did you? I suppose I assisted them.
1258. Did they inspect the property? No; but Mr. Hodnett knew it well; he had been living on it.
1259. The value of the land is placed at £2,500? Yes.
1260. Did not Pitt, Son, and Badgery sell it on the 6th October, 1884, for £5,000? Yes.
1261. Was that for the run alone? Yes.
1262. How do you account for that? Because I got more than it was worth considerably.
1263. To whom was this sold? To Mr. Falkner.
1264. Did you file an amended statement in probate with respect to this? No; there was too much deficiency in other matters.
1265. You admit, with respect to Snubba, that you received an amount greater than set down in the application for probate? Yes; the sale was actually made by Mrs. Swift conjointly with Pitt. I scarcely had anything but a consenting part in it.
1266. The sale was actually completed? Yes.
1267. Do you say that Baden Park, Browley, and Snubba were not inspected for valuation? I have said before that they were not properly inspected; they were known to the valuers.
1268. Were inventories taken? Not that I know of.
1269. Look at station book No. 7;—that is a letter to McDonald from you? Yes.
1270. Look at documents 507 and 508;—that is from Mr. McDonald to you? Yes; it is dated 20th March, 1884.
1271. You see there this statement:—"Herewith I send an approximate statement of our places, which you can make out to your own liking;—these are quite near enough"? Yes; and it goes on to say, "I would urge you to push probate through quickly."
1272. Did you take any action, seeing that it was only an approximate statement that McDonald sent you to test it as an executor? No.
1273. You accepted it as correct? Yes; anything which he has given us.
1274. In this statement Mungie Bundie, Boollaroo, and Gravesend are put down as carrying 60,000 sheep? Yes.
1275. Do you know of your own knowledge whether that is approximately correct? Not of my own knowledge.
1276. You were an executor, but McDonald was not? Yes.
1277. It was not McDonald's place to consider the interests of any of the legatees? No.
1278. But it was yours? Yes; but McDonald was a partner, and it was to his interest to put it in as correctly as possible.
1279. If on those stations where he said there were 60,000 sheep there were actually 80,000, would the estate have suffered? I do not think so.
1280. If McDonald has admitted that on that very date there were 85,241 sheep on those stations, would the estate have suffered? The estate would not have suffered.
1281. Would the probate duty? I do not know, because there were deficiencies on other items in the probate. The total value for probate would not have been increased.
1282. Why? Because the station was not worth it. The station is worth a certain amount with a certain quantity of stock upon it. We overvalued Mungi Bundie and other stations considerably.
1283. If a person had been going to buy the estate, and you furnished them with an estimate of 60,000 sheep and so on, and during the interval you had put 25,000 sheep on it, would you not expect him to pay more for it? Yes; I would perhaps have fixed a value for the property.
1284. Would not 25,000 sheep be an important part of the total of 60,000? Yes; but you overlook the fact that the run was overvalued, and when it was sold it realised very much less than the valuation.
1285. You did not amend the probate? I did not.
1286. Did Pitt, Son, and Badgery make a rough valuation of those three stations, putting it down at £90,000? I think they did.
1287. Look at document 515,—do you recognise that letter to you? Yes; I recognise it as one of Mr. R. M. Pitt's letters to me.
1288. Who was Mr. Henderson? He was a gentleman formerly on Quantambone Station.
1289. Did he value the property at 45s. an acre? That was a long time afterwards; it was three years I think. He went at Mrs. Swift's request, and I do not think he was ever paid for it. He did not go at my request.
1290. Did Pitt, Son, and Badgery's valuation include any such items as land taken up in the interests of the station? I do not know.
1291. How many selections were taken up on this station? I do not know. I was asked by Mrs. Swift distinctly to leave Mr. McDonald alone, because he was such a good man, and she was so afraid that he would insist upon selling the stations before the necessary time, that she asked me, as a great favour, to leave him alone, and tried also through Abbott and Allen to make Mr. Croaker and me consent to an actual partnership on his part in it, and we refused.
1292. How many selections were there in process of alienation from the Crown on those runs at the time that Swift died? I do not know. I do not know whether the 35,000 acres mentioned there is freehold land or selections.
1293. On your own run at Wagga were there many selections being taken up? Some were afterwards. I gave you all the particulars before.
1294. There was a sum due by Sutton & Co. for 2,000 ewes;—they were sold on the 10th January for £1,200, and the sheep were delivered by drover Halloran, and Mr. McDonald received a promissory-note after the testator's death, which note never came into the probate statement which was filed? I have no answer to give.
1295. Was that amount included? I know nothing about it.
1296. McDonald has admitted it? If he did, I have nothing to say about it.
1297. Did you take any action to ascertain the facts? No.

- P. Hann.  
23 Nov., 1899.
1298. You did not take any means to prove whether it was correct or incorrect? What further means could I take?
1299. When you made application for probate, did you inspect the books? Certainly not; they could not be got in time.
1300. There is another item for sheep sold to Cook; they were sold prior to the testator's death;—were they included in the probate valuation? I do not know anything about it.
1301. Can you point it out? I cannot.
1302. That was £413 10s. Then there is another item. Wool was in transit at the time of testator's death, at Mungi Bundie, of the value of £1,817 8s. 7d.; that was never included in the valuation for probate;—can you point that out? I am not prepared to dispute anything you are talking about.
1303. Do you admit it? I do not admit anything. I am listening to all you have to say.
1304. I would like to have your answer? I have no answer to give.
1305. That being an asset of the testator, should it not have been included? You are the best judge.
1306. If the asset existed at the time of the testator's death, should it not have been included? The assumption is that it should have been.
1307. Was it? I do not know. I do not know how Mr. McDonald stood at the time.
1308. Did you never take any means to ascertain? No. As I told you before, that was at the instance of the executrix. She asked me particularly not to do anything to Mr. McDonald, to let him alone, and not even to ask to look at his books or make up accounts.
1309. Do you recognise this as station letter-book No. 31? Yes.
1310. Is this a letter addressed by you to Mr. Swift in 1883? Yes.
1311. It is dated 4th May, 1883;—you say, "We shall have to see what position we stand in to these men (the selectors) by-and-by, and by-and-by block them by dummieing around them";—how do you explain that? I have no explanation to give.
1312. In book 10, page 43, you will see a letter from you to Cody, dated 19th May, 1883, you say, "The land can only be secured by selection, and we have not people enough to do it with, but as soon as I find their land is surveyed, and get a proper description, I mean then to see Frayne and some others, and adjoin their boundaries, to cut them off from getting prelease land"? Yes, I see that.
1313. Can you explain that? No; beyond that we wanted to secure as much grazing land as we could.
1314. Then, on 23rd May, you wrote, "I wish we could have got the tank-sinkers, so we could have secured bores and your grass rights. I fancy the piece of land in Ring-hole Paddock, north of the woolshed, might take the fancy of some one. What think you?" Yes.
1315. Then, on the 26th May, you wrote: "If these selectors are about over the run, and you think some of it going, send in T. Frayne, so that I can take a strip in his name"? Yes.
1316. Can that refer to anything except your intention to take up land in the name of T. Frayne? I suppose not. It is evidently intended to secure the land.
1317. Then, on the 6th June, 1883, you wrote: "We must hold ourselves in readiness to secure any places, and I wish you would give me accurate descriptions of each spot to work upon. Send Frayne in next Wednesday, and I will take up 320 acres";—who was Frayne? I do not remember. I suppose he was an employee.
1318. Have you any explanation to offer for that? None whatever.
1319. Then, on the 7th June, 1883, you wrote: "I must take up 320 acres next week to make sure of spoiling the selector's chance on one end of the paddock, and connect our I.P. through the .C.P. with the boundary"? Yes; that is my letter.
1320. Then there is this letter to Swift: "I shall take up 320 acres to-morrow in one of our men's names so as to spoil and cut off the selectors? Yes.
1321. Have you any explanation as to that? None whatever; beyond that I was doing what all others have done—trying to secure grass. I do not see that that affects stamp duty.
1322. What is this cheque? It explains itself. Thomas Frayne's conditional purchase, £50.
1323. Then this cheque is for Gore's £160? Yes, it is for a conditional purchase, but for Gore. I have no explanation to offer, and I do not see that any explanation is necessary.
1324. How came you to give Frayne £80? So that he could take up the land.
1325. In your interest? Once the money was passed to him he could hold the land or give it up afterwards. They were never under any obligation to return us the land. We preferred to have friendly rather than hostile men on the land.
1326. Does not this letter saying, "So as to spoil and cut off the selectors," mean that you intended to secure the land for the station against *bona fide* men? All I say is that Frayne was entrusted with the money to take up the land, and then we had the use of it.
1327. *Mr. McLean.*] Do you wish to make any further statement? I wish to say something with regard to valuations, and as to having undervalued those properties for probate. Mimosa West and Baden Park have been taken over by the Bank of New South Wales with a liability of some £51,000. Before they were taken over, Mrs. Swift got Mr. R. M. Pitt to make an offer to me that she wanted to take over Baden Park for herself at £33,000. You will see the valuation was for £57,000. She wanted me to take over Mimosa West for about £13,000. It was then valued at £29,000 for probate. These are actual facts, which occurred with Mrs. Swift.

1899.

(THIRD SESSION.)

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LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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**ART UNIONS ACT AMENDMENT BILL.**  
(PETITION FROM CERTAIN MEMBERS OF THE EVANGELICAL COUNCIL AGAINST.)

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*Received by the Legislative Assembly, 13 December, 1899.*

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To the Legislative Assembly of New South Wales in Parliament assembled.

The Petition of the Evangelical Council and others,—

HUMBLY SHOWETH:—

That your Petitioners, representing many Christian Ministers, Office-bearers, and thousands of Members and Adherents of the Evangelical Churches of New South Wales, view with extreme regret and alarm the proposal to pass a Bill known as the "Art Union Amendment Bill." They believe that the effect of such a Bill will inevitably be to strengthen the gambling spirit which is already far too strong in the community, and needs rather to be repressed than encouraged.

Your Petitioners would therefore earnestly pray your Honorable House to reject the said Bill.

And, as in duty bound, your Petitioners will ever pray.

*[Here follow 4 signatures.]*

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A similar Petition was received—

On 13th December, 1899, from the President and Honorary Secretary of the New South Wales Union of Christian Endeavour Societies.

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1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

ACCIDENTS WITH LIFTS.  
(LEGISLATION IN VARIOUS COLONIES DEALING WITH.)

*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

[Laid upon the Table of the House in connection with Question No. 10 of the 3rd August, 1899]

(10.) Accidents with Lifts:—Dr. Ross asked the Colonial Secretary,—In view of the number of serious accidents frequently occurring in connection with lifts attached to large offices and buildings in the city, has any action been taken by the Government to prevent the occurrence of such accidents by regulation or otherwise?

Mr. Brunker answered,—It will be necessary to introduce a measure to deal with this subject, and the matter shall have early attention.

LEGISLATION in various Colonies dealing with Prevention of Accidents with Lifts.

Victoria—No legislation.

Queensland        „

Tasmania           „

West Australia    „

South Australia—No legislation specially dealing with subject, but under Factories Act the Inspector has power to give directions for safeguarding lifts in factories:—*Vide* para. 2 of section 8, as follows:—“To inspect and examine machinery in any factory, and to give such directions as he may consider necessary or proper for the safeguarding of dangerous machinery, and for protecting the life and health of persons engaged in the working thereof.”





1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(FACTORIES, SEPTEMBER, 1899.)

*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

RETURN (*in part*) to an Order made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

*(Mr. Smith.)*

SCHEDULE of Accidents which occurred in Factories registered under the Factories and Shops Act during the month of September, 1899.

Name of injured person.	Factory.	Nature of accident.	Fatal.
Jones, Alfred .....	F. Booth & Co. ....	Injury to foot .....	No.
McAnley, J. ....	Goodlet & Smith .....	Injury to hand .....	No.
Hallinan, J. ....	G. & C. Hoskins .....	Injury to eye .....	No.
Thomas, George .....	A. McDonald .....	Two fingers cut off .....	No.
Rochs, A. ....	Peacock Jam Co. ....	.....	No.
Barrett, R. ....	Arnott's Biscuit Factory .....	Crushed finger .....	No.
Rogers, W. ....	Mort's Dock .....	Wound on head .....	No.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(FACTORIES, OCTOBER, 1899.)

*Printed under No. 11 Report from Printing Committee, 23 November, 1899.*

RETURN (*in part*) to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

*(Mr. Smith.)*

## Factories registered under the Factories and Shops Act.

RETURN of Accidents for the month of October, 1899.

Injury to body	...	...	...	...	...	...	...	1
" face	...	...	...	...	...	...	...	2
" arm	...	...	...	...	...	...	...	2
" chest	...	...	...	...	...	...	...	1
" hand	...	...	...	...	...	...	...	6
" leg	...	...	...	...	...	...	...	2
								14
								Fatal, 1

T. B. CLEGG,  
Officer in Charge.



1899.

(THIRD SESSION)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

MONTHLY RETURNS OF ACCIDENTS.

(PUBLIC WHARFS, FOR JUNE, 1899.)

*Printed under No. 1 Report from Printing Committee, 3 August, 1899.*

RETURN (*in part*) to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“ Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof—(a) Upon vessels belonging to New South Wales; (b) Upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

(Mr. Smith.)

JUNE, 1899.—MONTHLY RETURN of Accidents—Public Wharfs, Sheds, and Wool Stores.

Name.	Nature of Accident.	Name of Vessel where Accident occurred.	Whether New South Wales or Foreign Vessel.	Cause.	Fatal or Non-fatal.
Charles Neal .....	Injuries to spine...	“Aorangi” .....	English .....	Fell down hold.....	Non-fatal.
John Morgan .....	.....	“Egmont Castle”..	Intercolonial...	do. ....	Fatal.

JOHN JACKSON,  
Collector and Manager.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

MONTHLY RETURNS OF ACCIDENTS.

(PUBLIC WHARFS, &amp;c., FOR JULY, 1899.)

*Printed under No. 3 Report from Printing Committee, 22 August, 1899.*

RETURN (*in part*) to an Order made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

(*Mr. Smith.*)

JULY, 1899.—MONTHLY RETURN of Accidents—Public Wharfs, Sheds, and Wool Stores.

Name.	Nature of Accident.	Name of Vessel where occurred.	Whether N.S.W. or Foreign vessels.	Cause.	Fatal or Non-fatal.
Michaelis, George, 33, Hart-street, Miller's Point.	Fractured leg	S.s. "Oldenburg"	Foreign .....	Slab of marble falling on him	Non-fatal.
Harrison, Charles, Globe-street ..	Broken leg...	S.s. "Augsburg"	Foreign .....	Cask of cement falling on him	Non-fatal.

JOHN JACKSON,  
Collector and Manager.





1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(PUBLIC WHARFS, &amp;c., NOVEMBER, 1899.)

*Printed under No. 14 Report from Printing Committee, 19 December, 1899.*

RETURN (*in part*) to an Order made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

*(Mr. Smith.)*

NOVEMBER, 1899.—MONTHLY RETURN of Accidents—Public Wharfs, Sheds, and Wool Stores.

Name.	Nature of Accident.	Name of Vessel where occurred.	Whether N.S.W. or Foreign vessel.	Cause.	Fatal or Non-fatal.
T. Weston .....	Slight scalp wound and injuries to back.	S.s. “Prinz Regent Luitpold.”	Foreign .....	Rebounding of plank in slings on vessel's side.	Non-fatal.

JAMES JACKSON,  
Manager and Collector.

[580 copies—Approximate cost of Printing (labour and material), £0 16s. 6d.]

[3d.]

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1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(RETURN RESPECTING.)

Printed under No. 1 Report from Printing Committee, 3 August, 1899.

RETURN (*in part*) to an Order of the Honorable the Legislative Assembly of New South Wales, dated 21st September, 1898, That there be laid upon the Table of this House,—

“Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

(Mr. S. Smith.)

RETURN showing Accidents which have occurred during the month of April, 1899, to persons employed directly by the Department of Public Works, or on works carried out under the supervision of the Department.

Date of Accident.	Name.	Employed by—	Capacity.	Work on which engaged.	Alleged cause of Accident.	Result.
GOVERNMENT ARCHITECT'S BRANCH.						
1899. 24 April	J. H. Martin .....	Government	Carpenter ...	Custom House additions .....	Injury to hand by a piece of timber falling on same.	Non-fatal.
SEWERAGE CONSTRUCTION BRANCH.						
26 April	R. Edwards .....	Contractor...	Miner .....	Sewerage Works, Bondi .....	Injury to leg by a piece of timber when at work in trench.	Non-fatal.
HARBOURS AND RIVERS BRANCH.						
4 April	W. Hart .....	Government	Labourer.....	Fitzroy Dock .....	Hand cut by boiler-plate .....	Non fatal.
7 "	D. O'Keefe .....	"	"	"	Hand injured by being caught in machinery.	"
7 "	R. Farrell.....	"	Fitter's boy...	"	Finger cut by boiler-plate .....	"
7 "	W. Marshall.....	"	Striker .....	"	Hand burnt by piece of hot iron.	"
7 "	A. Boyd .....	"	Boiler boy ...	"	Knee injured by piece of flying rivet.	"
8 "	W. Grant .....	"	Fireman .....	Tug "Ceres" .....	Struck on head by crank-shaft of engine.	"
12 "	H. Robinson.....	"	Boiler-maker..	Fitzroy Dock .....	Leg injured by piece of flying rivet.	"
13 "	J. Martin .....	"	Labourer.....	"	Hand crushed by dock shears ..	"
13 "	F. Young .....	"	Fitter's boy...	"	Thumb injured by being struck by hammer.	"

Date of Accident.	Name.	Employed by—	Capacity,	Work on which engaged.	Alleged cause of Accident.	Result.
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HARBOURS AND RIVERS BRANCH—*continued.*

1899.						
13 April	M. Ryan .....	Government	Labourer.....	Fitzroy Dock .....	Fell from plank into the dock ...	Non-fatal.
13 "	F. Strainy .....	"	"	"	Finger crushed by chain sling ...	"
15 "	L. Wickham .....	"	Blacksmith...	"	Finger crushed by piece of iron falling on it.	"
15 "	P. O'Brien .....	"	Labourer.....	Macleay River works .....	Finger crushed by railway iron...	"
18 "	T. Newell .....	"	Fireman .....	Dredge "Castor" .....	Injury to eye by chip of brass ...	"
21 "	M. Brennan .....	"	Quarryman...	Glebe Island works .....	Foot crushed by fall of stone.....	"
21 "	L. Mills.....	Contractor...	Labourer.....	Hastings River works .....	Hand injured by being struck by hammer.	"
25 "	A. Aspiay .....	Government	"	Glebe Island works .....	Testicle severely bruised by flying gad.	"
25 "	J. McClannan .....	"	Plate-layer ...	"	Injury to back when carrying rails.	"
25 "	J. Munro .....	Contractor...	Labourer.....	Hastings River works .....	Injury to hand by falling stone...	"
25 "	H. Kennedy .....	"	"	Bellinger River works .....	Injury to hand by crow-bar (jarred).	"
26 "	J. Collopy.....	Government	"	Darling Island, Pyrmont .....	Injury to leg by cask of cement rolling against same.	"

## METROPOLITAN BOARD OF WATER SUPPLY AND SEWERAGE.

25 April	H. Bushell .....	Board .....	Ganger .....	Pipe-laying .....	Fell into trench .....	Non-fatal.
10 "	G. Hawkins .....	Contractor...	"	" (Sewer) .....	Injured through explosion of compressed powder.	"

## ROADS AND BRIDGES BRANCH.

1 April	B. Douglas .....	Government	Labourer.....	Approaches to Cattai Creek...	Injury to face, when blasting ...	Non-fatal.
24 "	R. Leonard .....	Contractor...	Carter .....	Road Contract, Forbes to Condobolin.	Broken leg, through wheel of cart passing over same.	"
25 "	E. Stores .....	Government	Labourer.....	Road Maintenance.....	Hand injured by horse .....	"

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(RETURN RESPECTING.)

*Printed under No. 1 Report from Printing Committee, 3 August, 1899.*

RETURN (*in part*) to an Order of the Honorable the Legislative Assembly of New South Wales, dated 21st September, 1898, That there be laid upon the Table of this House,—

“Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

*(Mr. S. Smith.)*

RETURN showing Accidents which have occurred during the month of May, 1899, to persons employed directly by the Department of Public Works, or on works carried out under the supervision of the Department.

Date of Accident.	Name.	Employed by—	Capacity.	Work on which engaged.	Alleged cause of Accident.	Result.
SEWERAGE CONSTRUCTION BRANCH.						
1899. 6 May	Robert Austin .....	Contractor...	Carpenter ...	Mainly Sewerage Works .....	Head injured by stone falling on him when working in trench.	Non-fatal.
18 "	John Bonnor .....	" ...	Miner .....	Contract 184, Sewerage Works, North Sydney.	Injuries to face, hands, and body through an explosion in tunnel.	"
RAILWAY AND TRAMWAY CONSTRUCTION BRANCH.—Nil.						
GOVERNMENT ARCHITECT'S BRANCH.						
13 May	T. Woffindin .....	Government	Labourer.....	General Post Office additions	Injured through falling off scaffold.	Non-fatal.
18 "	W. Leaf .....	" ...	Carpenter ...	Decorations Prince's Stairs, Circular Quay, Governor's arrival.	Injured through slipping on piece of timber.	"
ROADS AND BRIDGES BRANCH.						
8 May	William Rowe .....	Government	Labourer.....	Repairing Culvert, Walgett District.	Foot cut by adze .....	Non-fatal.
15 "	John Kennedy.....	" ...	Carpenter's assistant.	Repairing Bridges, Cootamundra District.	Injury to head and shoulder by falling off bridge.	"
16 "	William Chase.....	Contractor...	Labourer.....	Road Contract, Nowra District.	Broken leg through fall of earth, &c.	"
16 "	William Johnson.....	Government	" .....	Repairs, Culvert, Nowra District.	Injured through fall into culvert when lifting stone.	"

Date of Accident.	Name.	Employed by—	Capacity.	Work on which engaged.	Alleged cause of Accident.	Result.
<b>HARBOURS AND RIVERS BRANCH.</b>						
1899.						
1 May	L. Caldwell .....	Government	Labourer.....	Fitzroy Dock .....	Finger crushed by railway bar ...	Non-fatal.
1 "	H. W. Burden .....	"	"	Newcastle Harbour Works ..	Hand cut by chisel bar .....	"
3 "	F. McCulloch .....	"	"	Darling Island Works ..	Injured by stone slipping on skid	"
3 "	J. Starkey .....	"	"	Glebe Island Causeway Works	Injured by being struck by bar when barring down.	"
6 "	H. Furneaux .....	"	Coxswain ..	Dredge " Newcastle".....	Thumb cut by broken wire rope..	"
6 "	J. Curry .....	Contractor...	Labourer.....	Hastings River Works .....	Hand injured by stone falling on same.	"
9 "	P. Hawkins .....	Government	"	Fitzroy Dock .....	"	"
9 "	A. Hannan .....	"	Blacksmith ..	"	Hand cut by chisel .....	"
9 "	R. Tulloch .....	"	Boilermaker..	"	Hand cut by piece of rock .....	"
9 "	R. Farrell .....	"	Fitter's boy...	"	Hand cut by piece of plate .....	"
9 "	J. Loutitt .....	"	Boy .....	Dredge " Archimedes ".....	Thumb crushed by being caught under crosshead.	"
10 "	W. Cooper .....	"	Labourer.....	Fitzroy Dock .....	Arm burnt by hot rivet .....	"
11 "	J. F. Smith .....	"	Carpenter ..	Dredge " Sampson" .....	Injury to back through a fall ...	"
13 "	A. Tillett .....	"	Engine-driver	Dredge " Newcastle".....	Injury to chest through a fall ...	"
16 "	J. Bruce .....	"	Labourer.....	Fitzroy Dock .....	Finger cut by shearing machine...	"
16 "	W. Furling .....	"	"	"	Head cut by end of angle iron ...	"
17 "	W. Hamilton .....	"	Shipwright...	"	Injured by falling down engine-room s.s. " Biloba."	"
17 "	J. Ryan.....	"	Labourer.....	Glebe Island Causeway Works	Foot bruised by stone falling on same.	"
19 "	A. Wright.....	"	"	Fitzroy Dock .....	Head cut by piece of iron .....	"
19 "	N. Sanders .....	"	"	Newcastle Harbour Works ..	Foot injured through being jammed between pinch-bar and rail.	"
22 "	J. Goldsmith .....	"	"	Macleay River Works .....	Injured by falling from waggon...	"
25 "	M. Parkinson .....	"	Mason .....	Darling Island Works .....	Injured by falling through stay canting.	"
25 "	H. Appel .....	Contractor...	Labourer.....	Cattle Shipping Wharf, Newcastle.	Leg injured by log of timber rolling against same.	"
25 "	W. Cheers.....	Government	"	Macleay River Works .....	Injured by being struck by stone falling from truck.	"
29 "	A. Boyd.....	"	Boilermaker's boy.	Fitzroy Dock .....	Hand cut by iron plate .....	"
31 "	W. Black .....	"	Labourer.....	"	Fingers crushed between shaft and truck.	"
31 "	W. Fletcher .....	"	"	"	Finger cut by piece of plate .....	"

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(RETURN RESPECTING.)

*Printed under No. 1 Report from Printing Committee, 3 August, 1899.*

RETURN to an *Order* of the Honorable the Legislative Assembly of New South Wales, dated 21st September, 1898, That there be laid upon the Table of this House,—

“ Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

(Mr. S. Smith.)

RETURN showing Accidents which have occurred during the month of June, 1899, to persons employed directly by the Department of Public Works, or on works carried out under the supervision of the Department.

Date of Accident.	Name.	Employed by—	Capacity.	Work on which engaged.	Alleged cause of Accident.	Result.
HARBOURS AND RIVERS BRANCH.						
1899.						
2 June	J. Gibson .....	Government	Fitter .....	Fitzroy Dockyard .....	Finger cut by knife .....	Non-fatal.
2 "	R. Pittie .....	" "	Boiler-maker .....	" .....	Finger cut by edge of plate .....	"
2 "	M. Meaney .....	" "	Labourer .....	" .....	Finger jammed between truck and plate.	"
2 "	G. Miles .....	" "	Drayman .....	Darling Island .....	Cask of cement falling, jammed his leg.	"
8 "	P. Cobcroft .....	" "	Labourer .....	Fitzroy Dockyard .....	Finger jammed between two stones	"
8 "	D. Melvin .....	" "	" .....	" .....	Leg struck with pick .....	"
9 "	J. Sherry .....	" "	" .....	" .....	Finger crushed with stones .....	"
9 "	A. Paton .....	" "	Boiler-maker .....	" .....	Hand cut by edge of plate .....	"
9 "	M. Murray .....	" "	Labourer .....	Darling Island .....	Struck by skip of ballast, and fell 25 feet.	"
14 "	W. Kenny .....	" "	" .....	Clarence River improvements	Rail fell on finger .....	"
15 "	C. Crier .....	" "	" .....	Fitzroy Dockyard .....	Hand burnt by hot rivet .....	"
16 "	J. Page .....	" "	" .....	" .....	Hand cut by edge of rivet .....	"
16 "	W. Morant .....	" "	" .....	" .....	Finger crushed with stone .....	"
21 "	E. Walsh .....	" "	" .....	Clarence River improvements	Stone fell on toe .....	"
22 "	J. Stewart .....	" "	" .....	Fitzroy Dockyard .....	Finger crushed between water-pipes.	"
22 "	J. Nicholl .....	" "	Driller .....	" .....	Thumb caught in drilling-machine	"

Date of Accident.	Name.	Employed by—	Capacity.	Work on which engaged.	Alleged cause of Accident.	Result.
<b>HARBOURS AND RIVERS BRANCH—continued.</b>						
1899.						
23 June	W. Ellis .....	Government	Labourer.....	Fitzroy Dockyard .....	Hand caught between truck-wheels.	Non-fatal.
24 "	B. McNally .....	" .....	" .....	Macleay River improvements	Valve blew out and scalded his arm.	"
26 "	J. Holt .....	" .....	" .....	Fitzroy Dockyard .....	Leg cut with piece of wood .....	"
26 "	C. Smith .....	Contractor...	" .....	Nambucca River .....	Turning over large stone dislocated wrist.	"
28 "	W. Buddle .....	Government	Boiler-maker	Fitzroy Dockyard .....	Finger cut by tool .....	"
29 "	J. King .....	" .....	Labourer.....	" .....	Hand crushed in pulley-block ...	"
30 "	C. Boverly .....	" .....	Boy .....	" .....	Finger caught in machinery .....	"
30 "	A. Davis .....	" .....	Labourer.....	" .....	Blow on hand with hammer .....	"
<b>RAILWAY AND TRAMWAY CONSTRUCTION BRANCH.</b>						
19 June	George Thompson ...	Government	Ganger .....	Morce to Inverell Railway ...	Foot crushed by truck. (Foot amputated.)	Non-fatal.
<b>ROADS AND BRIDGES BRANCH.</b>						
1 June	P. Corrigan .....	Contractor...	Labourer.....	Road work, Warialda District	Injury to hand by pick .....	Non-fatal.
8 "	F. B. Benson .....	Government	" .....	Bridge approach, Tweed District.	Injured through dray capsizing on him.	"
21 "	A. Shute .....	" .....	Puntanan.....	Lugarno Ferry .....	Hand cut by tomahawk .....	"
26 "	M. Welch .....	Contractor...	Labourer.....	Road work, Kempsey District	Injured through explosion of blasting-powder	"
<b>SEWERAGE CONSTRUCTION BRANCH.</b>						
8 June	J. McGollan .....	Contractor...	Labourer.....	Manly sewerage works .....	Struck in lower part of back by pick used by McGollan's mate when working in flushing-chamber.	Non-fatal.
<b>METROPOLITAN BOARD OF WATER SUPPLY AND SEWERAGE.</b>						
June	J. Roach .....	Board .....	Labourer.....	Quarrying stone, Prospect ...	Hand injured by falling stone ...	Non-fatal.
"	M. Nealon .....	" .....	" .....	" .....	Foot jammed by stone .....	"
"	J. McCue .....	" .....	" .....	" .....	Foot injured by falling stone ...	"



1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

MONTHLY RETURNS OF ACCIDENTS.

(DEPARTMENT OF PUBLIC WORKS, JULY, 1899.)

*Printed under No. 4 Report from Printing Committee, 24 August, 1899.*

RETURN to an *Order* of the Honorable the Legislative Assembly of New South Wales, dated 21st September, 1898, That there be laid upon the Table of this House monthly returns showing:—

“The number of accidents, fatal and non-fatal, and the cause thereof,—  
“(a) upon vessels belonging to New South Wales; (b) upon vessels  
“belonging to other countries whilst within the jurisdiction of New South  
“Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries,  
“buildings in course of erection, and on railways.”

(*Mr. S. Smith.*)

RETURN showing Accidents which have occurred during the month of July, 1899, to persons employed directly by the Department of Public Works, or on works carried out under the supervision of the Department.

Date of Accident.	Name.	Employed by—	Capacity	Work on which engaged.	Alleged cause of Accident.	Result.
RAILWAY AND TRAMWAY CONSTRUCTION.						
1899.						
18 July	George Delanis	Government	Carpenter	George-street Tramway	Dressing poles, Fitzroy Dock	Non-fatal.
23 „	Henry Hutchins	„	Wire-splicer	„	Splicing old wire	„
29 „	William Parker	„	„	„	Fell off trolley waggon	„
HARBOURS AND RIVERS BRANCH.						
6 July	T. Hession	Government	Labourer	Reclamation, Spectacle Island	Slipped when stepping on boat and sprained ankle.	Non-fatal.
6 „	J. Ellis	„	„	Glebe Island	Slipped on deck of punt causing rupture.	„
8 „	R. Camavan	„	„	Darling Island	Thrown on his back by surging rope.	„
11 „	J. W. Byrne	„	„	Glebe Island	Hit on the hand by piece of ballast.	„
13 „	J. P. Pringle	„	„	„	Struck on leg by loose spawl falling down face of quarry.	„
13 „	C. Lawrence	„	Boy	Fitzroy Dockyard	Finger caught in screwing machine	„
17 „	J. Cathcart	„	Labourer	„	Finger crushed by stone in quarry	„
18 „	J. W. Albany	„	„	Glebe Island	Badly bruised through slipping down face of quarry.	„
19 „	*J. Constable	„	„	„	Struck on shin by piece of boulder	„
19 „	A. Boyd	„	Boy	Fitzroy Dockyard	Hand cut by edge of plate	„
20 „	*W. Heien	„	Steam drill driver.	Macleay River Improvements	Fripped over stone and wrenched ankle joint.	„
21 „	J. Lyons	„	Labourer	Clarence River Improvements	Struck by piece of rock falling down face of quarry.	„
24 „	E. White	„	Shipwright	Fitzroy Dockyard	Finger caught between two blocks	„
24 „	A. McMahon	„	Labourer	„	Blow on thumb with hammer	„
24 „	W. Watts	„	Fitter	„	Leg cut by edge of plate	„
25 „	N. L. Johnson	„	Blacksmith	Darling Island	Burnt by hot iron from forge	„
26 „	C. Gane	„	Labourer	Glebe Island	Hit on back of hand by dogs flying.	„
26 „	C. Donnelly	„	Fitter	Fitzroy Dockyard	Hand jammed by propellor shaft.	„
18 „	*R. Keenan	„	Labourer	Glebe Island	Badly bruised through slipping down face of quarry.	„
10 „	*A. Howitt	„	„	Fitzroy Dockyard	Cut finger	„
METROPOLITAN BOARD OF WATER SUPPLY AND SEWERAGE						
6 July	F. Holley	Contractor	Labourer	Digging in trenches	Fall of earth	Non-fatal.
24 „	H. Phillips	„	„	Excavating in rock	Struck by pick	„
ROADS AND BRIDGES BRANCH.						
1 July	W. Fleming	Government	Labourer	Road maintenance work	Strained himself, removing tree	Non-fatal.
1 „	J. Apps	„	Ganger	„	Strained himself, lifting drain-pipes.	„
14 „	T. J. Sutherland	Contractor	Labourer	Millard's Contract—Road Approach Burrungong Creek	Legs bruised, by fall of earth from embankment.	„

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1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(DEPARTMENT OF PUBLIC WORKS, AUGUST, 1899.)

*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

RETURN (*in part*) to an *Order* of the Honorable the Legislative Assembly of New South Wales, dated 21st September, 1898, That there be laid upon the Table of this House, Monthly Returns showing,—

“The number of accidents, fatal and non-fatal, and the cause thereof,—  
 “(a) upon vessels belonging to New South Wales; (b) upon vessels  
 “belonging to other countries whilst within the jurisdiction of New South  
 “Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries,  
 “buildings in course of erection, and on railways.”

*(Mr. S. Smith.)*

RETURN showing Accidents which have occurred during the month of August, 1899, to persons employed directly by the Department of Public Works, or on works carried out under the supervision of the Department.

Date of Accident.	Name.	Employed by—	Capacity.	Work on which engaged.	Alleged cause of Accident.	Result.
1899. HARBOURS AND RIVERS BRANCH.						
1 Aug.	A. McMahon .....	Government	Labourer.....	Fitzroy Dock.....	Thumb jammed between truck and buffer of loco.	Non-fatal.
4 "	G. Cronin.....	" ..	Blacksmith's striker.	" ..	Hand cut by jagged edge of plate	"
5 "	J. Murphy ..	" ..	Machinist ..	" ..	Finger caught in machinery .....	"
8 "	C. Gibson.....	Contractor ..	Carpenter ..	Newcastle Harbour Works ..	Foot struck by piece of rail .....	"
10 "	W. Tate .....	Government	Boilermaker..	Fitzroy Dock .....	Hand cut by jagged edge of plate	"
11 "	L. Ryan .....	" ..	Labourer ..	" ..	Hand jammed between stones in quarry.	"
17 "	R. Sheather ..	" ..	Engine-driver	Richmond River Improvements.	Sprained ankle; struck by engine lever.	"
22 "	S. Ruprecht ..	Contractor ..	Labourer.....	Hastings River Improvements	Hand jammed by stone .....	"
23 "	C. Bovery.....	Government	Fitter's boy ..	Fitzroy Dock .....	Finger caught in drilling-machine	"
23 "	D. Lawler .....	" ..	Boilermaker's boy.	" ..	Head cut from blow from hammer	"
25 "	J. Duff .....	" ..	Inspector ..	Homebush Bay Reclamation Works.	Foot jammed by rail .....	"
28 "	J. McGovern ..	Contractor ..	Labourer ..	Hastings River Improvements	Struck by stone hook .....	"
28 "	J. Hunter.....	Government	" ..	Fitzroy Dock .....	Finger crushed by casting .....	"
29 "	J. Cathart.....	" ..	" ..	" ..	Hand jammed between stones in quarry.	"
29 "	C. Johnson .....	Contractor ..	" ..	Newcastle Harbour Works ..	Ankle cut by adze .....	"
30 "	W. Ellis .....	Government	" ..	Fitzroy Dock .....	Hand jammed in block .....	"
31 "	P. Neilsen.....	" ..	" ..	Darling Island Improvements	Broken finger through crane sling slipping.	"
RAILWAY CONSTRUCTION BRANCH.						
27 Aug.	John Roberts .....	Government	Wire-splcer..	George and Harris Streets Tramway.	Thrown off trolly waggon by span wire.	"
27 "	Evans Jones.....	" ..	" ..	" ..	" ..	"
SEWERAGE CONSTRUCTION BRANCH.						
25 Aug.	E. Murphy .....	Government	Chamman ...	Quarantine Station Sewerage Works.	Injury to eye by piece of steel flying off drill.	"
ROADS AND BRIDGES BRANCH.						
21 Aug.	J. Donovan ..	Contractor ..	Contractor ...	Bateman's Bay Ferry Approach.	Injury to hand when using spalling hammer.	"
21 "	J. Whittaker ..	Government	Shipwright ..	Glebe Island Bridge .....	Injury to knee, being struck by a girder which was being hoisted by crane.	"

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[580 copies—Approximate cost of printing (labour and material), £1 5s.]



1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

MONTHLY RETURNS OF ACCIDENTS.

DEPARTMENT OF PUBLIC WORKS, SEPTEMBER, 1899.)

Printed under No. 6 Report from Printing Committee, 19 October, 1899.

RETURN (*in part*) to an Order of the Honorable the Legislative Assembly of New South Wales, dated 21st September, 1898, That there be laid upon the Table of this House, Monthly Returns showing,—

“The number of accidents, fatal and non-fatal, and the cause thereof,—  
“(a) upon vessels belonging to New South Wales; (b) upon vessels  
“belonging to other countries whilst within the jurisdiction of New South  
“Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries,  
“buildings in course of erection, and on railways.”

(Mr. S. Smith.)

RETURN showing Accidents which have occurred during the month of September, 1899, to persons employed directly by the Department of Public Works, or on works carried out under the supervision of the Department.

Date of Accident.	Name.	Employed by—	Capacity.	Work on which engaged:	Alleged cause of Accident.	Result.
1899. GOVERNMENT ARCHITECT'S BRANCH.						
9 Sept.	William Wester .....	Government	Labourer .....	Additions, General Post Office	Back leg of crane falling .....	Non-fatal.
25 "	A. J. Lennen .....	"	"	"	Fall from scaffold .....	"
HARBOURS AND RIVERS BRANCH.						
9 Sept.	J. Hill .....	Government	Labourer .....	Glebe Island Works.....	Dallast falling from dray—injury to arm.	Non-fatal.
18 "	M. Thompson .....	Contractor	Horse-driver..	Hastings River " .....	Thrown on line—waggon passed over his right arm, necessitating amputation.	"
21 "	B. Young .....	Government	Labourer .....	Newcastle " .....	Piece of timber falling on foot ..	"
25 "	A. Boyd .....	"	Boilermaker's boy.	Fitzroy Dock " .....	Thumb fractured by blow from hammer.	"
26 "	J. Lahiff .....	"	Stonemason ..	Cargo shed, Woolloomooloo Bay	Finger crushed by stone.....	"
28 "	C. De Mestre .....	"	Carpenter .....	Dredge "Archimedes" .....	Thumb crushed in cogs of crane wheel.	"
29 "	W. Paterson.....	"	"	" "Dorus" .....	Strained muscle of shoulder .....	"
ROADS AND BRIDGES BRANCH.						
4 Sept.	F. Walsh .....	Government	Labourer .....	Repairs, Causeways, Goulburn District.	Cut hand .....	Non-fatal.
9 "	R. Neelan.....	"	"	Road work, Yass District.....	Thrown out of sulky—injury to leg	"
20 "	J. O'Connell.....	"	"	Repairs, Causeways, Goulburn District.	Stone falling on hand .....	"
21 "	J. Wright .....	"	Carpenter .....	Moruya Bridge .....	Cut foot when chopping ends of deck planks.	"
22 "	G. Every .....	Contractor	Carter .....	Road work, Glen Innes District	While driving dray tripped over a stick, and wheel of dray passed over him.	Fatal.
23 "	R. Hughes .....	"	Contractor .....	Run of Water Bridge, Goulburn District.	Broken arm, caused by a rope breaking.	Non-fatal.
25 "	E. Moree .....	Government	Carter .....	Carting timber, Cowra District	Foot injured by wheel of cart ...	"
25 "	P. Grady .....	"	Labourer .....	Road work, Lithgow " .....	Bruised knee—breakage of hand-spike when removing fallen timber.	"



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURN OF ACCIDENTS.

(DEPARTMENT OF PUBLIC WORKS, OCTOBER, 1899.)

*Printed under No. 12 Report from Printing Committee, 30 November, 1899.*

RETURN to an *Order* of the Honorable the Legislative Assembly of New South Wales, dated 21st September, 1898, That there be laid upon the Table of this House, Monthly Returns showing,—

“The number of accidents, fatal and non-fatal, and the cause thereof,—  
 “(a) upon vessels belonging to New South Wales; (b) upon vessels  
 “belonging to other countries whilst within the jurisdiction of New South  
 “Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries,  
 “buildings in course of erection, and on railways.”

*(Mr. S. Smith.)*

RETURN showing Accidents which have occurred during the month of October, 1899, to persons employed directly by the Department of Public Works, or on works carried out under the supervision of the Department.

Date of Accident.	Name.	Employed by—		Capacity.	Work on which engaged.	Alleged cause of Accident.	Result.
		Government.	Contractor.				
<b>GOVERNMENT ARCHITECT'S BRANCH.</b>							
1899. 16 Oct.	James Connors	Government	.....	Labourer ...	General Post Office—Additions.	Piece of iron falling on him ...	Non-fatal.
<b>SEWERAGE CONSTRUCTION BRANCH.</b>							
30 Oct.	James Ogilvie	.....	Contractor ...	Miner.....	Mosman Sewerage Works	Broken arm and scorched face through premature explosion of half a plug of powder in shaft.	Non-fatal.
<b>HARBOURS AND RIVERS BRANCH.</b>							
5 Oct.	T. Sheehan ...	Government	.....	Labourer ...	Glebe Island.....	Stack of ballast slipped and crushed thumb.	Non-fatal.
12 "	J. Bellinghurst	"	.....	Quarryman..	" .....	Slipped from plank and fractured fourth finger.	"
16 "	W. Furlong ...	"	.....	Labourer ...	Fitzroy Dockyard .....	Hot plate from furnace falling on foot and crushing toe.	"
16 "	F. Unwin .....	"	.....	"	" " .....	Internal injuries caused by fall on deck of tug "Orestes."	"
17 "	E. Beeson .....	"	.....	"	Newcastle Harbour Works	Finger crushed by hammer ..	"
17 "	T. Thompson...	"	.....	"	" " .....	Fall from truck whilst unloading chains.	"
23 "	G. Price .....	"	.....	Quarryman..	Glebe Island .....	Jarred hand .....	"
27 "	J. McCallum...	"	.....	Labourer ...	" .....	Jarred finger .....	"
27 "	T. Hinton .....	"	.....	"	Newcastle Harbour Works	Foot crushed by stone rolling on it.	"
<b>ROADS AND BRIDGES BRANCH.</b>							
1 Oct.	P. Grady .....	Government	.....	Maintenance-man.	Road work, Lithgow District.	Log rolled on to his leg. ....	Non-fatal.
6 "	W. Worthing..	.....	Contractor	Labourer ...	Bridge work, Taree District	Fall from staging—broken thigh.	"
11 "	J. Moir .....	.....	"	"	Clearing road, Gosford District.	Cut arm through falling on axe when cutting log.	"
16 "	T. Connell.....	Government	.....	Lockman ...	Moruya Bridge .....	Struck on head by piece of wood falling from top chamber.	"
17 "	J. Wauson.....	.....	Contractor	Carpenter ...	Erecting culvert, Richmond District.	Knee cut with adze while adzing timber.	"
28 "	J. Elder.....	Government	.....	Maintenance-man.	Road work, Ballina District	Fell over a log and fractured rib.	"
30 "	J. McLeod...	.....	Contractor...	Labourer ..	Road work, Bega District	Dynamite explosion—injured eyes, head, and face.	"





1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(DEPARTMENT OF PUBLIC WORKS, NOVEMBER, 1899.)

*Printed under No. 15 Report from Printing Committee, 21 December, 1899.*

RETURN to an *Order* of the Honorable the Legislative Assembly of New South Wales, dated 21st September, 1898, That there be laid upon the Table of this House, Monthly Returns showing,—

“The number of accidents, fatal and non-fatal, and the cause thereof,—  
 “(a) upon vessels belonging to New South Wales; (b) upon vessels  
 “belonging to other countries whilst within the jurisdiction of New South  
 “Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries,  
 “buildings in course of erection, and on railways.”

(Mr. S. Smith.)

RETURN showing Accidents which have occurred during the month of November, 1899, to persons employed directly by the Department of Public Works, or on works carried out under the supervision of the Department.

Date of Accident.	Name.	Employed by—		Capacity.	Work on which engaged.	Alleged cause of Accident.	Result.
		Government.	Contractor.				
HARBOURS AND RIVERS BRANCH.							
1899. 2 Nov.	J. Pringlo.....	Government	.....	Labourer ..	Glebe Island Reclamation	Crushed between dray and stack of ballast.	Non-fatal.
11 "	G. Lindsay ...	"	.....	" ..	Newcastle Harbour Works	Hand caught in machinery ...	"
14 "	M. Brennan ...	"	.....	" ..	Glebe Island Quarry .....	Injury to eyes caused by explosion.	"
15 "	M. Welsh .....	.....	Contractor...	" ..	Hastings River Improve- ments.	Injury to foot through rail tepping at tiphead.	"
17 "	J. Smith .....	Government	.....	" ..	Clarence River Improve- ments.	Injury to leg, jammed between two stones in quarry.	"
23 "	G. Purdue ...	"	.....	" ..	Glebe Island Quarry .....	Injury to back, lifting stone in quarry.	"
24 "	J. Hartley...	"	.....	" ..	Clarence River Improve- ments.	Two fingers crushed in quarry	"
24 "	H. Hoburne ..	"	.....	" ..	Erection of Bollards, Pymont.	Injury to foot by falling stone	"
28 "	J. Rogers .....	"	.....	Ganger .....	Glebe Island Quarry .....	Injury to knee by falling stone	"
14 "	G. Hitchcock ..	"	.....	Labourer ...	Glebe Island Causeway ..	Crushed finger by falling stone	"
ROADS AND BRIDGES BRANCH.							
1 Nov.	G. Robinson...	.....	Contractor...	Contractor..	Road work, Quirindi Dis- trict.	Crushed foot through wheel of dray passing over same.	Non-fatal.
1 "	T. W. McMahon	.....	"	" ..	Road work, Richmond District.	Injured by explosion of gun- powder.	"
1 "	J. Mason .....	Government	.....	Labourer ...	Repairing Crossing .....	Two ribs broken through hand- spike slipping when remov- ing large log of timber.	"
2 "	J. Maguire ...	"	.....	Assistant Caretaker.	Pymont Bridge .....	Injury to knee by swing of bridge.	"
29 "	J. Westley ...	.....	Contractor..	Labourer ...	Road work .....	Injured by fall of earth .....	"
30 "	J. Hourigan ..	Government	.....	" ..	Road work, Bathurst Dis- trict.	Crushed hand through limb of tree falling on same.	"

[3d.]

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[580 copies—Approximate Cost of Printing (labour and material), £1 5s.]



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURN OF ACCIDENTS.

(RAILWAYS AND TRAMWAYS, FOR MARCH, APRIL, AND MAY, 1899.)

*Printed under No. 1 Report from Printing Committee, 3 August, 1899.*

RETURN (*in part*) to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

(Mr. Smith.)

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal accidents which have occurred in the New South Wales Government Railways and Tramways during the month of March, 1899.

Date of Accident	Locality.	Names of Persons Injured.	Servants of Department.	Nature of Injuries.
1899.				
7 Mar.	Bridge-st. Yard ...	H. F. I. Martin ...	Fireman .....	Finger fractured when uncoupling motor from car.
8 „	Junce .....	Richd. Allen.....	Washer-out .....	Ribs broken. Fell from engine tender.
13 „	Redfern.....	J. Higgins .....	Porter .....	Right shoulder crushed when leaning over buffer untying sheet, through another truck being shunted up.
15 „	Campbelltown .....	J. Harper .....	Assistant Guard .....	Fell whilst shunting and fractured elbow.
17 „	Junce .....	W. Boyce.....	Labourer .....	Ribs broken through falling of trestle.
22 „	Redfern .....	Thos. Hope .....	Engine-driver ...	Collision in tunnel. Back hurt.
		J. McCallum .....	Fireman .....	Collision in tunnel. Foot hurt.
22 „	Yass .....	F. Gambell .....	Conductor .....	Fell during shunting operations and was run over by car. Died 27th March. Inquest. Verdict—“Accidental death.”
27 „	Eskbank .....	— Jeffrey.....	Shunter .....	Fell when shunting and injured knee.
16 „	Pearth.....	D. Stedman .....	„ .....	Fell at points. Right hand run over.

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal Accidents which have occurred in the New South Wales Government Railways and Tramways during the month of March, 1899.

Date of Accident.	Locality.	Names of Persons Injured.	Persons outside Department.	Nature of Injuries.
1899.				
2 Mar.	Darling Point Road	Miss Colreavy .....	.....	Shaken. Stepped off tram in motion.
2 "	Near Albion Park	F. Abbott .....	.....	Skull fractured. Struck by a train.
4 "	Waratah .....	J. Stean (child) .....	.....	Wound on back of head through falling off car platform.
6 "	Bourke-street .....	W. Robinson .....	.....	Slightly shaken. Fell off tram in changing seat.
11 "	Thornton .....	— Murray .....	.....	Leg and shoulder injured. Attempted to alight from train in motion.
14 "	Newcastle .....	G. Higginbotham .....	.....	Head cut. Ran in front of tram in motion. Knocked down by motor.
20 "	Marrickville .....	W. Gordon .....	.....	Killed by running against a car whilst shunting. Inquest. Verdict—"Accidental death."
21 "	Wardell Road .....	J. O'Brien .....	.....	Run over. Fatally injured. Inquest. Verdict of "Accidental death."
21 "	Faulconbridge .....	Name unknown. (Chinaman) .....	.....	Run over while trespassing on line, and shoulder bruised.
22 "	Sydenham .....	R. Brown .....	.....	Run over. Fatally injured. Inquest. Verdict of "Accidental death."
22 "	King-street .....	P. Coghlan .....	.....	Head cut whilst attempting to enter tram in motion.
24 "	Between Helena and Byron Bay.	G. Rose .....	.....	Leg broken through striking side-rail of car.
24 "	Morpeth .....	J. Craddock (lad) .....	.....	Trespassing. Fell or jumped off train shunting. Concussion of brain.
27 "	Parramatta Road .....	— McGuire .....	.....	Bruised and shaken. Collided with motor whilst cycling.
30 "	King-street .....	W. B. Gibbons .....	.....	Fatally injured whilst attempting to enter tram in motion. Inquest. Verdict—"Accidental death."
31 "	Parramatta .....	J. Ferris (lad) .....	.....	Jumped off train in motion. Concussion of brain.

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal Accidents which have occurred in the New South Wales Government Railways and Tramways during the month of April, 1899.

Date of Accident.	Locality.	Names of Persons Injured.	Servants of Department.	Nature of Injuries.
1899.				
1 April	Mezangle .....	Geo. Mauley .....	Officer-in-Charge	Right hand crushed through falling during shunting operations, and his hand being caught between sprag and end of sleeper.
4 "	Eveleigh .....	John Robb .....	Fitter .....	Skull fractured through falling into a locomotive pit.
6 "	Randwick .....	Donald Kell .....	Motor Fireman	Head bruised through falling when getting into pit to oil underneath motor.
8 "	Redfern .....	Wm. Docksey .....	Fireman .....	Head cut through collision between engines 89 and 158.
13 "	Albion Park .....	C. Robertson .....	Porter .....	Toe crushed through door of cattle-wagon falling on his foot.
15 "	Penrith .....	John Cochrane .....	Fuelman .....	Leg injured through slipping when in a dump-car, and jamming his leg between the door and edge of truck.
16 "	Junee .....	Michael Maloney .....	Fettler .....	Struck by engine while walking in yard, and fatally injured. Verdict of Coroner's jury—"Accidental death."
20 "	Wyang .....	H. Lauder .....	Carpenter .....	Injured groin through falling when unloading cog-wheel.
24 "	Uralla .....	Hugh O'Brien .....	Shunter .....	Slightly injured through falling from brake-van.
29 "	Bowenfels .....	C. J. Morgan .....	Station-master .....	Shock and slightly injured. Struck by train.

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal Accidents which have occurred in the New South Wales Government Railways and Tramways during the month of April, 1899.

Date of Accident.	Locality.	Names of Persons Injured.	Persons outside Department.	Nature of Injuries.
1899.				
1 April	Helensburgh .....	Mrs. Armstrong .....	.....	Shock to system through falling from train on to platform.
		C. Sbissa .....	.....	
		J. Stephens .....	.....	
		H. J. Clark .....	.....	
		W. Wood .....	.....	
		Jane Scott .....	.....	
1 "	Moore Park .....	H. C. Bibby .....	.....	Injured in collision between trams at Moore Park
		J. A. Ross .....	.....	
		S. B. Jefferson .....	.....	
		Mrs. Fyfe .....	.....	
		B. Cody .....	.....	
		E. F. Symons .....	.....	
		P. Newbrick .....	.....	
1 "	Regent-street .....	W. H. Wilkinson .....	.....	Knocked down by tram-motor, and slightly injured.
9 "	Newtown .....	Mrs. Angullitta .....	.....	Arm fractured through vehicle colliding with tram water-tank motor.
13 "	Darling Harbour .....	J. Moor .....	Carter .....	Slightly injured through falling from a truck.
17 "	Hornsby Junction	Jas. Bennett .....	.....	Run over by train, and fatally injured. Verdict of Coroner's jury—"Accidental death."
17 "	Darling Harbour .....	Wm. M'Carthy .....	Labourer .....	Wound on leg through adze slipping whilst dressing timber.
18 "	Guyra .....	A. Mitchell .....	.....	Slightly injured. Caught between trucks whilst assisting to load wool.
20 "	Araclyffe .....	Mrs. Rand .....	.....	Fell between platform and carriage of train, and fatally injured. Verdict of Coroner's jury—"Accidental death."

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal Accidents which have occurred in the New South Wales Government Railways and Tramways during the month of May, 1899.

Date of Accident.	Locality.	Names of Persons Injured.	Persons outside Department.	Nature of Injuries.
1899.				
4 May.	Glebe.....	— Dalzeal .....	.....	Hip injured through collision between cart and motor.
7 „	Como.....	Miss Lowe .....	.....	Shock to system through falling when attempting to join train.
11 „	Darling Point .....	R. C. Hagon.....	.....	Leg broken through cab colliding with motor
11 „	Oxford-street ...	Sinclair Cormack... Mortimore Stenberg Stephen Lane .....	.....	Shock to system through collision between cart and motor.
18 „	Enmore .....	Miss M. E. Jones... Mrs. Prior .....	.....	Shock to system through alighting from tram in motion.
22 „	Wollongong .....	Mrs. Robertson .....	.....	Slightly injured through engine backing sharply on train in which they were seated.
23 „	Honeysuckle Point	O. Rosmond.....	Seaman .....	Run over by train while trespassing on line, and fatally injured. Verdict of Coroner's jury—"Accidental death."
25 „	Newcastle .....	— Lloyd .....	.....	Shock to system through alighting from tram in motion.
26 „	Camperdown .....	Victor Dodge .....	.....	Head injured. Struck by tram motor. "
26 „	Bathurst-street .....	Patrick Kennedy...	.....	

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal Accidents which have occurred in the New South Wales Government Railways and Tramways during the month of May, 1899.

Date of Accident.	Locality	Names of Persons Injured.	Servants of Department.	Nature of Injuries.
1899.				
1 May.	Petersham .....	H. Clarke .....	Fireman .....	Hand injured in attending to injector of engine.
5 „	Murrurundi .....	F. Chapman.....	Guard .....	Leg scalded through steam escaping from engine when he was passing same.
9 „	Eveleigh .....	W. Bones .....	Ganger .....	Right foot injured. Jammed between case and side of truck.
10 „	Darling Harbour ..	C. Brown .....	Porter .....	Left foot injured. Caught between buffer cylinder and buffer-head.
10 „	Eveleigh .....	H. Marshall .....	Boilermaker .....	Right foot injured through piece of iron falling on it.
11 „	Katoomba .....	J. Horstmann .....	Examiner .....	Severe strain through lever slipping when changing wheels of van.
12 „	Aberdeen .....	J. Charlton .....	Carpenter .....	Severely bruised in falling through bridge when proceeding to his camp.
20 „	Newcastle .....	J. Lyon .....	Gatekeeper .....	Injured through being struck by a light engine.
20 „	Mount Druitt .....	J. Hartley .....	Guard .....	Injured through falling from engine.
22 „	Eveleigh .....	F. G. King .....	Boilermaker's Helper.	Hand injured. Jammed between machine and foundation.
23 „	„ .....	W. Bullivant .....	Fuelman .....	Leg injured. Jammed between engine and tender.
23 „	Woy Woy.....	T. Underwood .....	Cart Driver .....	Leg broken through fall of earth.
27 „	Albury .....	G. Attwater .....	Porter .....	Injured through being run over by postal van and mail van during shunting operations.
30 „	Eveleigh .....	A. Mason .....	Machinist.....	Hand injured. Struck by piece of ash thrown back by machine.
30 „	„ .....	J. Sullivan .....	Cleaner .....	Scalp wound through slipping into pit whilst cleaning engine.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(RAILWAYS AND TRAMWAYS, FOR JUNE, 1899.)

*Printed under No. 1 Report from Printing Committee, 3 August, 1899.*

RETURN (*in part*) to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“ Monthly returns showing the number of accidents, fatal and non-fatal,  
 “ and the cause thereof:—(a) Upon vessels belonging to New South  
 “ Wales; (b) Upon vessels belonging to other countries whilst within the  
 “ jurisdiction of New South Wales; (c) On wharfs, wool stores, factories,  
 “ workshops, mines, quarries, buildings in course of erection, and on  
 “ railways.”

(Mr. Smith.)

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal accidents which have occurred on the New South Wales Government Railways and Tramways during the month of June, 1899.

Date.	Locality.	Names of persons injured.	Servants of Department.	Nature of injuries.
1899. 1 June	Boggamildri (Moree to Inverell Line).	W. Currie.....	Signal fitter .....	Kneecap fractured through falling from bridge.
5 "	North Shore.....	A. W. Peters .....	.....	Leg injured through being struck by cable drum.
9 "	Eveleigh .....	G. Kennedy .....	Carriage builder..	Ribs injured through falling from brake-van.
10 "	Darling Harbour .	G. Ingram .....	Hd. shunter .....	Hand injured when uncoupling wagons.
12 "	" .....	P. Power .....	Porter .....	Contused elbow through being struck by buffer.
13 "	Sydney .....	— Alexander .....	Tram conductor..	Foot crushed (necessitating amputation) through being struck by tram-car.
15 "	Redfern .....	S. Jones .....	Porter .....	Foot injured through case falling during loading operations.
19 "	Eveleigh .....	A. Stanfield .....	Labourer .....	Hand injured. Jammed between block and pile of headstocks.
21 "	Darling Harbour...	J. Marshall .....	Shunter.....	Arm injured when coupling wagons.
21 "	Unanderra .....	J. Smith .....	Porter-in-charge..	Chest injured through falling when coupling trucks.
21 "	Juneee.....	C. Brown .....	Shunter.....	Knee and shoulder injured through falling over lever points during shunting operations.
22 "	Culcairn .....	J. Sexton .....	Fireman .....	Hand injured Jammed in catch of turn-table.
24 "	Queanbeyan.....	G. F. Roberts .....	" .....	Injured (rib broken) through slipping when attempting to get on to engine in motion.
28 "	Harden .....	J. Morgan.....	Shunter.....	Head injured through falling from engine.
29 "	Goulburn .....	J. Stephenson .....	Driver .....	Injured (rib broken) through falling into engine-pit.
30 "	Sydney .....	G. Foster .....	Tram fireman ...	Hand crushed in coupling tram-cars to motor.

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal accidents which have occurred on the New South Wales Government Railways and Tramways during the month of June, 1899.

Date.	Locality.	Names of persons injured.	Persons outside Department.	Nature of injuries.
1899. 2 June	Redfern.....	— Woolnough.....	.....	Hand injured. Falling over bag on platform.
6 "	Bondi .....	— Clifford .....	.....	Injured. Struck by tram-motor.
7 "	Newtown .....	Mrs. Hitchins .....	.....	Injured through falling when entering tram.
9 "	Paddington .....	C. Gates .....	.....	Fatally injured through cart in which he was seated colliding with tram. Verdict at inquest, "Accidental death."
10 "	Auburn .....	Mrs. Skelly .....	.....	Collar-bone broken. Leaving train in motion.
11 "	Botany .....	John Preston .....	.....	Injured. Leaving tram in motion.
12 "	Liverpool-street ..	E. Cain .....	.....	Shock to system through walking in front of and being struck by motor.
17 "	Moore Park .....	E. B. G. Riley.....	.....	Fatally injured. Knocked off footboard of tram by a passing tram. Verdict of Coroner's jury, "Accidental death."
18 "	Near Dubbo.....	Thos. Kelly .....	.....	Shock to system through falling over approach to bridge while trespassing.
21 "	Sydney Goods .....	S. O'Heir .....	.....	Leg broken through bale of hay falling during unloading operations.
22 "	Honeysuckle Point	W. Pike (8 years of age).	.....	Fatally injured. Run over by passenger train. Verdict of Coroner's jury, "Accidental death."
28 "	Redfern .....	E. Michael .....	.....	Fatally injured. Falling off Sydney platform and struck by train. Verdict of Coroner's jury, "Accidental death."
29 "	George-street West	P. M. Coughlan (3 years of age).	.....	Head injured. Struck by tram-motor.
29 "	College-street .....	Miss R. Bailey.....	.....	Injured through falling from tram in motion.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(RAILWAYS AND TRAMWAYS, JULY, 1899)

*Printed under No. 4 Report from Printing Committee, 24 August, 1899.*

RETURN (*in part*) to an Order made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“ Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

*(Mr. Smith.)*

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal accidents which have occurred on the New South Wales Government Railways and Tramways during the month of July, 1899.

Date.	Locality.	Names of persons injured.	Servants of Department.	Nature of injuries.
1899.				
3 July	Bridge-street .....	J. P. Roe .....	Fireman .....	Finger crushed whilst coupling cars to motor.
5 "	" .....	J. Montgomery ..	" .....	Finger fractured through falling whilst putting coke on motor.
5 "	Demondrille .....	J. Boran .....	Labourer .....	Arm broken through plough striking boulder and overturning.
6 "	Blayney .....	John Moon .....	Guard .....	Left hand and wrist crushed through coupling falling on hand.
6 "	Gunning .....	J. Byrnes .....	" .....	Fingers crushed through door of brake-van closing suddenly when brake was applied.
6 "	Eveleigh .....	T. Devaney .....	Machinist .....	Hand badly cut when pushing back cradle of cross-cut saw through his hand slipping on to saw.
7 "	263 miles 64½ chains, Oundagai Line.	J. Shaw.....	Labourer .....	Left leg broken by fall of earth.
7 "	Cullen Bullen .....	J. Houghton.....	Porter .....	Bruised knee and thigh. Thrown off truck when brake was applied in emergency.
8 "	Narrabri West .....	R. Mahor .....	Shunter .....	Left foot slightly crushed through foot slipping during shunting operations, and being caught by wheel of engine.
11 "	Darling Harbour ...	H. Peck .....	" .....	Elbow slightly crushed. Caught between buffers during shunting operations.
13 "	Eveleigh .....	T. McInerney .....	" .....	Left hand severely crushed through becoming jammed between draw-bar hook and coupling of wagons.
17 "	Clyde.....	J. Lawson .....	Cleaner.....	Head and arm injured through falling whilst removing plugs from sand-box of engine.
19 "	Werris Creek .....	J. F. Brown.....	Shunter.....	Wound on elbow. Caught between buffers when coupling up trucks.

Date.	Locality.	Names of persons injured.	Servants of Department.	Nature of injuries.
1899.				
1 July	Clyde.....	G. Willmott .....	Shunter...	Ribs fractured through alighting from wagons in motion and colliding with an electric light post.
3 "	Mileage 375, West.	D. Long .....	Ganger .....	Injured through engine colliding with tricycle on which Long was riding.
4 "	Moore Park .....	W. Berkley .....	Carter .....	Scalp wound. Struck by tram-motor.
8 "	Darling Harbour ..	M. Thomas .....	Number-taker ..	Leg injured through being run over by wagons.
19 "	Evelough .....	P. Cooper .....	Fireman .....	Burns on head and face owing to back draught causing flame to rush out of firehole of engine.
20 "	Goulburn .....	F. Sames .....	Turner .....	Left arm broken by piece of wood flying from lathe.
20 "	Eveleigh .....	F. Holland .....	Shunter .....	Injury to knee through side chain falling whilst uncoupling trucks.
24 "	Harden .....	H. Harris .....	Fuelman .....	Right hand injured owing to its being caught between skip and sling.
24 "	Eveleigh .....	F. Tomlin .....	Boilermaker's Helper.	Foot injured through iron plate falling on it.
28 "	Market-street .....	J. Grant .....	Assist. Conductor	Hand crushed whilst coupling up tramcars.

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal Accidents which have occurred in the New South Wales Government Railways and Tramways during the month of July, 1899.

Date.	Locality.	Names of persons injured.	Persons outside Department.	Nature of injuries.
1899.				
2 July	Market-street .....	Miss Harris .....	.....	Shock through alighting from tram in motion.
3 "	Mileage 119 30, South.	J. Daly .....	.....	Injured through being struck by a train whilst trespassing.
3 "	Broadmeadow .....	— Harler (baby)...	.....	Thigh fractured through falling whilst the mother was alighting from carriage.
4 "	Bourke .....	— Cole .....	.....	Finger crushed by shunting engine whilst trespassing on line.
5 "	Newtown .....	J. Conroy .....	.....	Scalp wound. Jumped from tram in motion.
6 "	Werris Creek .....	A. J. McKenzie ..	.....	Burns on right leg through explosion of limelight material, improperly taken into carriage by a passenger.
7 "	Bridge-street .....	J. Barrell .....	.....	Fatally injured. Trespassing in tramway yard. Run over by tramcar. Verdict of Coroner's jury—"Accidental death."
7 "	Macdonaldtown ...	A. Matterson .....	.....	Arm slightly injured by falling from car platform.
8 "	Market-street .....	A. Courtney .....	.....	Wounds on foot and head. Jumped on car in motion and fell.
8 "	Mosman .....	H. J. Smith .....	.....	Cut on head. Fell off tramcar.
8 "	Sydney .....	H. Devlin .....	.....	Face and hands cut through falling when joining train in motion.
8 "	Near Edwards-road Platform.	Sarah Gamboro ..	.....	Found dead at side of line. Coroner's jury returned an open verdict.
10 "	Bathurst-street .....	Mrs. Palmer .....	.....	Shock through alighting from tram in motion.
11 "	Queanbeyan .....	Mrs. McInnes .....	.....	Slight shock through slipping between platform and standing train.
11 "	Clyde .....	Mrs. Moore .....	.....	Shock to system in alighting from train in motion.
13 "	Mosman .....	F. McNeil .....	.....	Scalp wounds. Fell off tramcar platform at curve.
14 "	Bullock Island ...	H. Gibbons (age 12)	.....	Knee injured. Caught in buffers when climbing on coal wagons.
14 "	Newcastle .....	J. Woods .....	.....	Foot cut off. Run over by light engine.
16 "	Newtown .....	J. Lanney .....	.....	Sprained wrist. Left tram in motion.
17 "	Waratah .....	E. Stapleton (age 3)	.....	Finger injured by being jammed in door of carriage.
25 "	Balmuin .....	Annie Gunning ..	.....	Scalp wounds and cuts. Ran in front of, and was knocked down by, tram-motor.
28 "	Macdonaldtown ...	J. Douglas .....	.....	Face and hands cut in alighting from tram in motion.
31 "	Waterloo .....	R. Sains .....	.....	Itjury to head through cart colliding with tram.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(RAILWAYS AND TRAMWAYS, AUGUST, 1899.)

*Printed under No. 6 Report from Printing Committee, 19 October, 1899.*

RETURN (*in part*) to an Order made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“ Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

*(Mr. Smith.)*

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal accidents which have occurred in the New South Wales Government Railways and Tramways during the month of August, 1899.

Date.	Locality.	Names of persons injured.	Persons outside Department.	Nature of injuries.
1899. 2 Aug.	Penrith .....	Larkin, J. ....	.....	Collar-bone broken, and shock. Struck by an engine whilst trespassing.
3 „ ...	Oxford-street .....	O'Rooke, J. ....	.....	Injured through vehicle colliding with tram-motor.
9 „ ...	Rockdale .....	Bruce, — .....	.....	Fatally injured. Run over by train. Verdict of “Suicide” returned at Coroner's inquest.
12 „ ...	Croydon .....	Singleton, Wm. ...	.....	Slight injury through falling when alighting from train.
15 „ ...	Trangie .....	Richardson, C. ....	.....	Jaw broken through striking his head against platform of sheep-race when applying brake on sheep-truck.
17 „ ...	Darling Harbour ...	Sherblad, W. ....	Carter .....	Abrasions on face and hand. Struck by wagon-door when opening same.
17 „ ...	„ .....	Coolon, A. ....	Vanman .....	Leg injured by slipping through hole in bottom of truck.
25 „ ...	Devonshire-street...	Gaffney, W. ....	.....	Head injured through vehicle colliding with tram-motor.
26 „ ...	Newtown-road .....	Anderson, C. ....	.....	Injured. Alighting from tram in motion.
26 „ ...	„ .....	Murphy, Mrs. ....	.....	Arm injured. Alighting from tram in motion.
26 „ ...	Glebe Point .....	Muir, Mrs. ....	.....	Injured. Struck by tram-motor.
30 „ ...	Evans-street .....	Gosling, Mr. ....	.....	Injured. Leaving tram in motion.
31 „ ...	Glenbrook .....	Jeater, — .....	.....	Injured. Struck by engine whilst trespassing.
		(4 years of age.)		

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal accidents which have occurred in the New South Wales Government Railways and Tramways during the month of August, 1899.

Date.	Locality.	Names of persons injured.	Servants of Department.	Nature of injuries.
1899. 1 Aug.	Molong .....	Mendhand, J. A. ....	Porter .....	Thumb broken through being caught between foot-board of carriage and sprag when placing sprag in a wheel.
2 „	Clyde .....	Connellan, D. ....	„ .....	Injury to side through slipping from platform on to wagon-buffer.
3 „	Randwick .....	Atkinson, St. Clair .....	Brass-moulder .....	Foot burned through hot metal running over it in workshop.
9 „	Eveleigh .....	Sergeant, J. ....	Shunter .....	Leg injured. Knocked down by engine.
11 „	Newcastle .....	Sharp, J. ....	Porter .....	Slightly injured through falling between platform and truck.
12 „	Eveleigh .....	Hennessy, B. ....	Labourer .....	Hand injured through fingers becoming jammed between boards at end of wagon.
12 „	Strathfield .....	Short, Wm. ....	Guard .....	Knee injured through falling between platform and train.
14 „	Bathurst .....	Ambler, T. ....	Labourer .....	Foot crushed. Head stock slipped when being unloaded from truck.
16 „	Redfern .....	Bryant, J. ....	Driver .....	Injured. Knocked off tender through vehicles being backed against his engine.
17 „	Demondrille .....	Farrow, Wm. ....	Foreman .....	Injured, and shock to system. Struck by large lump of earth from blast.
17 „	Liverpool .....	Colls, F. J. ....	Night Officer .....	Kneesprained through slipping on platform of carriage.
18 „	Cowra .....	Coyne, C. ....	Porter .....	Finger crushed between piece of machinery and side of truck.
18 „	Murrumbarrah .....	Coleman, J. ....	Cleaner .....	Face injured. Struck by sprag in removing it from wheel of truck.
20 „	Campbelltown .....	Campling, P. ....	Fireman .....	Ankle injured, and shock through falling from engine into turn-table pit.
21 „	Parramatta .....	Broderick, P. ....	Porter .....	Foot bruised in lifting door of truck, which slipped and fell on his foot.
22 „	Demondrille .....	Ward, T. ....	Powderman .....	Arm and face burnt by explosion of loose powder.
25 „	416 miles west .....	Harding, A. ....	Fettler .....	Eye injured through piece of stone flying upwards while Harding was breaking same.
25 „	Tarro .....	Spinks, — .....	Sub-inspector .....	Arm and hip injured through trolley on which he was riding being run into by light engine.
25 „	Eskbank .....	Holland, T. ....	Boiler maker .....	Shoulder dislocated through falling from coal-stage.
28 „	Bundanoon .....	Weare, R. ....	Engine-driver .....	Leg fractured. Slipped from foot-plate of engine whilst attending to glands.
28 „	Armidale .....	Doyle, John .....	Porter .....	Hand crushed. Jammed in door of brake-van owing to jerk of train.
30 „	Junce .....	Grant, J. ....	Boiler-maker's Assistant.	Eye injured. End of pin flying from the chisel while being cut from damper of engine.
30 „	Eveleigh .....	Hampson, H. F. .....	Labourer .....	Finger crushed. When driving bolt out of "W" guard the guard fell, and jammed Hampson's finger between drift and wheel.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(RAILWAYS AND TRAMWAYS, SEPTEMBER, 1899.)

*Printed under No. 9 Report from Printing Committee, 8 November, 1899.*

RETURN (*in part*) to an *Order* made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“ Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

*(Mr. Smith.)*

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal accidents which have occurred in the New South Wales Government Railways and Tramways during the month of September, 1899.

Date.	Locality.	Names of persons injured.	Servants of Department.	Nature of injuries.
1899.				
2 Sept.	Waterfall .....	McArdle, P. ....	Shunter.....	Finger crushed during shunting operations.
7 „ ...	Glen Innes .....	Doyle, J. ....	Porter .....	Arm jammed between buffers during shunting operations.
7 „ ...	Randwick .....	Williams, Hy. ....	Fitter.....	Leg cut, through plank over pit tilting causing Williams to fall across side of pit.
11 „ ...	Woollabra .....	Bensley, A. ....	Porter .....	Chest and shoulder bruised. Caught between truck and loading-stage.
11 „ ...	Penrith .....	Giles, A. ....	Fuelman .....	Back injured and ribs bruised through slipping out of coal-truck on to coal-skips.
11 „ ...	Eveleigh .....	Quiney, C. ....	Apprentice .....	Eye injured through piece of bolt flying when end of bolt was being cut off.
12 „ ...	Eveleigh .....	Devir, M. ....	Labourer .....	Scalp wound through falling whilst stepping from foot-plate to stool.
15 „ ...	Eveleigh .....	Gray, R. ....	Apprentice .....	Hand injured through being caught in belting of lathe.
15 „ ...	Eveleigh .....	Smith, S. ....	Labourer .....	Shoulder-bone broken through block and tackle falling on him owing to breakage of chain.
10 „ ...	Hamilton .....	Johansen, P.....	Ganger .....	Wrist sprained through falling whilst climbing up on to foot-plate of tender.
17 „ ...	Eveleigh .....	King, A. ....	Cleaner .....	Hand injured in uncoupling engine.
18 „ ...	Orange .....	Marr, W. ....	Porter .....	Foot bruised owing to door of truck falling on it.
21 „ ...	Eveleigh .....	Parker, A.....	Fitter.....	Ankle and leg strained. Struck by piece of hardwood whilst lining up axle-box.
21 „ ...	Bridge-street .....	Campbell, J.....	Conductor.....	Injured shoulder. Struck by tram-car in yard.

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal accidents which have occurred in the New South Wales Government Railways and Tramways during the month of September, 1899.

Date.	Locality.	Names of persons injured.	Persons outside Department.	Nature of injuries.
1899. 1 Sept.	Elizabeth-street ...	Hallgan, W. ....	.....	Shock, and bruise on left side through horse running into grip-car.
2 ,, ...	Burringbar .....	Flanagan, J. ....	.....	Leg badly injured through attempting to board train whilst in motion.
5 ,, ...	Stammore .....	Taylor, Mrs. ....	.....	Shock, and injury to ankle through leaving train in motion.
5 ,, ...	Narrabri .....	Man (name not known).	.....	Slight shock through falling in leaving train at other than platform.
6 ,, ...	Near Sandgate .....	Man (name not known).	.....	Run over by train and fatally injured. Verdict of Coroner's jury, "Accidental death."
8 ,, ...	Rockdale .....	Euther, W. ....	.....	Knocked down by train and fatally injured. Verdict of Coroner's jury, "Accidental death."
15 ,, ...	Newtown .....	King, J. ....	.....	Concussion through jumping on tram in motion.
16 ,, ...	Botany .....	Langton, P. ....	.....	Shock through cart colliding with tram.
16 ,, ...	Abbotsford .....	Fitzsimmons, Mrs.	.....	Knee injured through falling from tram in motion.
20 ,, ...	Balmain .....	Sykes, W. ....	.....	Shock and bruised through vehicle colliding with tram.
20 ,, ...	Railway .....	Stevens, B. ....	.....	Shock through falling between tram-cars in motion whilst attempting to enter tram.
22 ,, ...	Petersham .....	Barton, A. .... (9 years old)	.....	Face injured through leaving train in motion.
22 ,, ...	Darling Harbour ...	Timmins, T. H. ...	.....	Hip injured through stepping into hole on platform during repairs
27 ,, ...	Warren .....	Man (name not known).	.....	Fatally injured. Verdict of Coroner's jury, "That the deceased met his death by fall from a goods-shed stage"; a rider being added that the Railway Department did all in its power to relieve sufferer.
27 ,, ...	Elizabeth-street ...	Jones, G. ....	.....	Shoulder injured. Knocked down by tram motor.
30 ,, ...	Milson's Point .....	Martin, J. ....	.....	Left arm cut off and foot injured through leaving train in motion.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## MONTHLY RETURNS OF ACCIDENTS.

(RAILWAYS AND TRAMWAYS, OCTOBER, 1899.)

*Printed under No. 13 Report from Printing Committee, 12 December, 1899.*

RETURN (*in part*) to an Order made by the Honorable the Legislative Assembly of New South Wales, dated the 21st September, 1898, That there be laid upon the Table of this House,—

“Monthly returns showing the number of accidents, fatal and non-fatal, and the cause thereof,—(a) upon vessels belonging to New South Wales; (b) upon vessels belonging to other countries whilst within the jurisdiction of New South Wales; (c) on wharfs, wool stores, factories, workshops, mines, quarries, buildings in course of erection, and on railways.”

*(Mr. Smith.)*

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal Accidents which have occurred in the New South Wales Government Railways and Tramways during the month of October, 1899.

Date	Locality.	Names of persons injured.	Servants of Department.	Nature of Injuries.
1899. 3 Oct.	Newtown .....	Murphy, J. ....	Guard .....	Foot run over through slipping during shunting operations.
5 "	Eveleigh .....	Hunt, R. ....	Cleaner .....	Knee injured in falling into engine-pit.
6 "	Darling Harbour...	Chandler, Geo. ....	Checker .....	Right leg injured in slipping on ramp.
7 "	Randwick .....	Warr, A. F. W. ...	Painter's Assistant.	Hand cut by coming into contact with scraper used for cleaning car windows.
9 "	Randwick .....	Pert, A. ....	Carpenter .....	Hand cut. Tripping on coil of wire and falling on some broken glass.
9 "	Morpeth .....	Lambert, P. ....	Porter .....	Fingers of left hand crushed through being caught in machinery when loading same.
10 "	Darling Harbour...	Wilkinson, W. ....	Porter .....	Finger injured. Caught in cog-wheel of rake when loading same.
11 "	Helensburgh.....	Thomas, J. ....	Fettler .....	Foot injured and ankle sprained. Crushed against sleepers.
11 "	Cootamundra .....	Bickley, G. ....	Shunter.....	Fatally injured. Crushed between buffers during shunting operations. Verdict of Coroner's jury, "Accidental death."
11 "	Newcastle .....	Bailey, G. ....	Shunter.....	Fatally injured. Crushed between buffers during shunting operations. Verdict of Coroner's jury, "Accidental death."
11 "	Bridge-street .....	Moses, G. V. ....	Fireman .....	Finger lacerated and fractured. Caught between coupling pin and draw-bar whilst coupling motor to car.
12 "	Perrith .....	Newton, F. ....	Clerk .....	Hip bruised. Struck by engine.
13 "	Dubbo .....	Marr, H. ....	Porter .....	Injured through bale of wool falling on him from waggou.

Date.	Locality.	Names of Persons Injured.	Servants of Department.	Nature of Injuries.
1899. 13 Oct.	Redfern.....	Coughlin, P. J.....	Junior Porter ...	Knee-cap bruised. Knocked off foot-board of carriage in shunting.
14 "	Eveleigh .....	Horsepool, J.....	Cleaner .....	Leg injured in falling into engine pit.
16 "	Bourke .....	Stapleton, J.....	Porter .....	Injured. Crushed between wool-bank and moving truck.
18 "	Eveleigh .....	Walker, H. ....	Fuelman .....	Hand injured in removing truck of coal and trolley load of springs.
20 "	Eveleigh .....	Harris, T. ....	Labourer .....	Hand injured. Jammed in releasing hook on draw-ropes of traverser.
20 "	Penrith .....	Brownlow, J.....	Signalman.....	Leg scalded through injector of engine blowing off. Riding on engine from station to duty.
21 "	Darling Harbour ...	Gapps, J. B.....	Porter .....	Hip and right elbow bruised in falling when sheeting a truck.
21 "	Werris Creek .....	Scott, J. B. ....	Fuelman .....	Chest injured in falling on top of truck.
24 "	Braemar .....	Smith, — .....	Driver .....	Left arm cut through gauge-glass of engine breaking.
25 "	Eveleigh .....	Liver, T. ....	Driver .....	Head injured through fire-iron falling on him.
26 "	Hamilton .....	Howard, W. ....	Driver .....	Fatally injured. Struck by light engine when crossing line. Verdict of Coroner's jury, "Accidental death."
29 "	Cowra .....	Harvey, W. J.....	Cleaner .....	Right-hand injured when assisting to put trailing spring on engine.
31 "	Hamilton .....	Bruce, F. ....	Guard .....	Injured. Knocked down by light engine whilst walking along the line. Foot cut off.

RETURN to an Order of the Legislative Assembly, dated 21st September, 1898, showing fatal and non-fatal Accidents which have occurred in the New South Wales Government Railways and Tramways during the month of October, 1899.

Date.	Locality.	Names of Persons Injured.	Persons outside Department.	Nature of Injuries.
1899. 6 Oct.	Botany .....	Doddy, Thos .....	.....	Injured through cart colliding with tram.
11 "	Park-street .....	M'Credic, — .....	.....	Legs crushed through being knocked down by passing tram whilst alighting from tram in motion.
11 "	Redfern.....	Gill, Sarah .....	.....	Right leg broken through falling between trains standing at platform.
15 "	Petersham .....	Comas, Mrs. ....	.....	Slightly injured through leaving train in motion.
18 "	North Shore .....	Moore, Mrs. .... M'Carthy, Mrs. ... Ballantyne, Mrs. ... Garner, Mrs. ....	.....	Shock, and slightly injured through cable tram colliding with cart.
23 "	Bridge-street.....	Chancellor, Lulu ... (child).	.....	Fatally injured through running in front of tram-car and being run over. Verdict of Coroner's jury, "Accidental death."
24 "	Liverpool-street ...	Mackay, R. ....	.....	Injured through walking in front of tram and being knocked down by motor.
26 "	Homebush .....	Nepean, John .... (lad).	.....	Fatally injured through falling from train in motion. Verdict of Coroner's jury, "Accidental death."
28 "	Market-street .....	Sinclair, Mrs. ....	.....	Face and head cut in attempting to enter tram in motion.
31 "	Newcastle .....	Gobble, P.....	.....	Collarbone broken through sully colliding with tram.



1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

EARLY CLOSING BILL (No. 2).

(PETITION FROM DEMETRIO A. COMINO, OF OXFORD-STREET, SYDNEY, RESTAURANT-KEEPER,  
PRAYING FOR LEAVE TO APPEAR BY COUNSEL BEFORE THE BAR OF THE HOUSE.)

*Received by the Legislative Assembly, 1 November, 1899.*

To the Honorable the Speaker and Members of the Legislative Assembly of New South Wales, in  
Parliament assembled.

The Humble Petition of Demetrio A. Comino, of Oxford-street, Sydney, Restaurant-keeper,—

SHOWETH AS FOLLOWS :—

1. That a Bill has been introduced into your Honorable House, and has passed the first reading, therein intituled, "A Bill for the Early Closing of Shops and to Regulate the Hours of Employment in Shops."

2. That the second reading of such Bill is an Order of the Day on the Business Paper of your Honorable House for Wednesday, the first day of November instant.

3. That the interests of your Petitioner, and of other persons keeping restaurants, fish shops, and oyster shops in the City of Sydney, as distinct from the general interests of the country, are directly affected by the said Bill.

4. That at a meeting of such persons it was unanimously resolved : (a) That their special interests, as distinct from the general interests of the country, are decidedly affected by the said Bill, and that a Petition should be presented to your Honorable House for leave to appear by Counsel before the Bar of your Honorable House and so to be heard thereon ; (b) That your Petitioner should as well on his own behalf as on behalf of the said persons so petition your Honorable House.

5. Your Petitioner therefore humbly prays that leave may be granted to your Petitioner to appear by Counsel before the Bar of your Honorable House, at such time as to your Honorable House may appear expedient, and so to be heard upon the said Bill, and upon the said special interests of your Petitioner and other persons carrying on similar business affected thereby.

And your Petitioner, as in duty bound, will ever pray.

D. A. COMINO.



1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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**EARLY CLOSING BILL (No. 2).**  
(PETITION FROM CERTAIN STOREKEEPERS OF PENRITH IN FAVOUR OF.)

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*Received by the Legislative Assembly, 7 November, 1899.*

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To the Honorable the Members of the Legislative Assembly of New South Wales.

The Petition of the undersigned Storekeepers, &c., of Penrith, in the Colony of New South Wales,—

HUMBLY SHOWETH:—

That whereas there is at the present time before the Honorable the Legislative Assembly a Bill bringing certain parts of the Colony under the provisions of an Early Closing Act, your Petitioners pray that the town of Penrith may be brought at once under the provisions of the said Act, by its inclusion among the other parts of the Colony already mentioned in the Act.

And your Petitioners, as in duty bound, will ever pray.

[Here follow 25 signatures.]



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## EARLY CLOSING BILL (NO. 2).

(PETITION FROM CERTAIN SHOPKEEPERS OF SYDNEY AND ADJACENT MUNICIPALITIES IN FAVOUR OF AMENDING THE BILL.)

*Received by the Legislative Assembly, 8 November, 1899.*

To the Honorable the Speaker and the Members of the Legislative Assembly in Parliament assembled.

The humble Petition of the undersigned, representing small shopkeepers and tradespeople residing in the City of Sydney and the adjacent Municipalities,—

HUMBLY SHOWETH:—

That your Petitioners fully recognise the pressing necessity which exists for immediate legislation in the direction of limiting the hours of labour of shop assistants, and believe that such legislation, if passed, will tend to the material and moral elevation of the community.

And whereas your Petitioners believe that this desirable purpose can be achieved under certain provisions of the Early Closing Bill which has been introduced to your Honorable House by the Honorable Member for the Hume, they humbly pray that your Honorable House, in its collective wisdom, will devise and insert such amendments and modifications in the Early Closing Bill as shall afford to shop assistants the desired relief without sacrificing the interests and threatening the livelihood of hundreds of struggling shopkeepers.

Your Petitioners therefore pray that your Honorable House will carefully consider the arbitrary and crushing compulsory closing clauses contained in the Early Closing Bill, which, it is feared, will have a disastrous and ruinous effect upon their business, and will result in a large number of struggling shopkeepers whose livelihood mainly depends upon the business they are able to do after 6 o'clock in the evening being compelled to close up their small establishments, and thereby driven into the ranks of the unemployed.

Your Petitioners therefore pray that your Honorable House will amend the Early Closing Bill in such a manner that shop assistants may be relieved without resorting to the drastic and arbitrary proposals of compulsory closing.

And your Petitioners will ever pray.

[Here follow 823 signatures.]



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

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**SUNDAY-TRADING BILL.**

(PETITION FROM W. M. PORTER AS CHAIRMAN OF A MEETING OF CERTAIN MEMBERS OF THE SNOWDROP LODGE OF INDEPENDENT ORDER OF GOOD TEMPLARS, HELD IN EAST MAITLAND, AGAINST.)

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*Received by the Legislative Assembly, 15 August, 1899.*

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To the Honorable the Speaker and Honorable Members of the Legislative Assembly of New South Wales, in Parliament assembled.

Your Petitioners, members of the Snowdrop Lodge of Independent Order of Good Templars, meeting in East Maitland, humbly pray that your Honorable House will not sanction the opening of public-houses on Sundays; but that you will, at an early date, adopt such provisions as are necessary to make the Sunday-closing clauses of the existing Licensing Act more effective.

Humbly praying that your Honorable House will give the subjects of this Petition your favourable consideration.

And your Petitioners, as in duty bound, will ever pray.

Signed on behalf of the Meeting,

W. M. PORTER.

1722

1723

1724

1725



1899.  
(THIRD SESSION.)

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LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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**SUNDAY OBSERVANCE BILL.**

(PETITION FROM CERTAIN RESIDENTS IN THE DISTRICT OF PICTON, AND THE ELECTORATE OF  
CAMDEN, IN FAVOUR OF.)

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*Received by the Legislative Assembly, 22 August, 1899.*

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To the Honorable the Legislative Assembly of New South Wales, in Parliament assembled.

The Petition of the undersigned Residents in the District of Picton, and the Electorate of Camden, humbly sheweth:—

That whereas a Bill, entitled "A Bill for the better observance of Sunday," has been introduced to your Honorable House by the Honorable Member for Yass.

And whereas your Petitioners believe that the passing of such a Bill will tend to the moral and material elevation of the country.

Your Petitioners therefore pray that your Honorable House may pass the Bill into law during the present Session.

And your Petitioners will ever pray.

*[Here follow 284 signatures.]*

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A similar Petition was received,—

On 23rd August, from certain Residents in the District of Junee, and the Electorate of Murrumbidgee; 64 signatures.

On 24th August, from certain Residents in the Sub-district of Berry, and the Electorate of The Shoalhaven; 62 signatures.

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1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

## SUNDAY OBSERVANCE BILL.

(PETITION FROM CERTAIN RESIDENTS OF HURSTVILLE, IN THE ELECTORATE OF ST. GEORGE,  
IN FAVOUR OF.)

*Received by the Legislative Assembly, 29 August, 1899.*

To the Honorable the Legislative Assembly of New South Wales, in Parliament assembled.

The Petition of the undersigned Residents of Hurstville, in the Electorate of St. George,—

HUMBLY SHOWETH:—

That whereas leave to introduce a Bill, entitled “A Bill for the better observance of the Sunday,” has been asked for from your Honorable House by the Honorable Member for Yass.

And whereas your Petitioners believe that the passing of such a Bill will tend to the moral and material elevation of the country.

Your Petitioners therefore pray that your Honorable House may pass the Bill into law during the present Session.

And your Petitioners will ever pray.

*[Here follow 43 signatures.]*



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

**SUNDAY OBSERVANCE BILL.**(PETITION FROM CERTAIN MEMBERS AND ADHERENTS OF ST. GEORGE'S PRESBYTERIAN CHURCH,  
SYDNEY, IN FAVOUR OF.)*Received by the Legislative Assembly, 17 October, 1899.*

To the Honorable the Legislative Assembly of New South Wales.

We, members and adherents of St. George's Presbyterian Church, Sydney, humbly petition your Honorable House in favour of a Bill for the better observance of the Lord's Day, which the Honorable Member for Yass is now asking to be introduced.

We, your Petitioners, humbly pray that such a Bill may be passed into law this Session.

And your Petitioners, as in duty bound, will ever pray.

*[Here follow 39 signatures.]*

A similar Petition was received,—On 19th October, 1899, from certain Residents of the Hastings and Macleay Electorate; 115 signatures.



1899.  
(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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**SUNDAY OBSERVANCE BILL.**  
(PETITION FROM CERTAIN RESIDENTS OF MOSMAN IN FAVOUR OF.)

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*Received by the Legislative Assembly, 25 October, 1899.*

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To the Honorable the Legislative Assembly of New South Wales in Parliament assembled.

The petition of the undersigned residents of Mosman and the Electorate of Warringah,—

HUMBLY SHEWETH :—

That whereas a Bill entitled a Bill for the better observance of Sunday has been introduced to your Honorable House by the Honorable Member for Yass.

And whereas your Petitioners believe that the passing of such a Bill will tend to the moral and material elevation of the country.

Your Petitioners, therefore, pray that your Honorable House may pass the Bill into law during the present Session.

And your Petitioners will ever pray.

*[Here follow 22 signatures.]*

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1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

**TOTALISATOR BILL.**(PETITION FROM MEMBERS AND ADHERENTS OF THE CONGREGATIONAL CHURCH, WATSON'S BAY,  
AGAINST.)*Received by the Legislative Assembly, 28 November, 1899.*

To the Legislative Assembly of New South Wales, in Parliament assembled.

The Petition of the Members and Adherents of the Watson's Bay Congregational Church,—

HUMBLY SHOWETH :—

That your Petitioners have viewed with alarm the introduction into your Honorable House of a Bill to legalise the use of an instrument known as "The Totalisator." They are convinced that said Bill, if made law, will work mischievously. It has done so elsewhere, and will in this Colony.

Gambling and betting are now treated as evil things. This measure will directly and seriously aggravate the evil. Your Petitioners are convinced that multitudes will be led into the hurtful practice by the facility afforded, and by the idea that the thing is "respectable," and thus great and terrible harm will be done to society. Your Petitioners, therefore, pray your Honorable House to reject the said proposal.

And, as in duty bound, your Petitioners will ever pray.

[*Here follow 20 signatures.*]

Similar Petitions were received—

- On 28th November, 1899, from certain members of Christian Endeavour Societies, Petersham ; 2 signatures.
- On 29th November, 1899, from Chas. White, M.A., Minister, and Robert Lamont, Secretary, of a meeting of members of Brown-street Congregational Church, Newcastle.
- On 30th November, 1899, from certain members of the Primitive Methodist Church, at Waratah ; 3 signatures.
- On 1st December, 1899, from members of Watson's Bay Young People's Society of Christian Endeavour ; 20 signatures.
- On 1st December, 1899, from certain members and adherents of the Baptist Church, Petersham ; 34 signatures.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## TOTALISATOR' BILL.

(PETITION FROM CERTAIN MEMBERS OF THE WESLEYAN CHURCH, MARRICKVILLE, AGAINST.)

*Received by the Legislative Assembly, 6 December, 1899.*

To the Legislative Assembly of New South Wales.

The humble Petition of the Congregation of the Wesleyan Church, Marrickville,—

SHOWETH :—

That your Petitioners view with alarm the proposal to legalise gambling by means of the Totalisator, believing as they do that gambling is immoral, and that the introduction of the Totalisator to this Colony would result in the increase of betting, and be demoralising to youth and the good order of society.

They therefore humbly petition that the Totalisator Bill may not become law.

And your Petitioners, as in duty bound, will pray.

[Here follow 40 signatures.]

Similar Petitions were received—

On 6 December, 1899, from certain members of the Wesleyan Congregation, Glebe Road, Glebe; 59 signatures.

„ 6 „ 1899, from certain members of the Wesleyan Church, Lewisham; 147 signatures.

„ 6 „ 1899, from certain members of the Primitive Methodist Church, Adamstown; 38 signatures.

„ 6 „ 1899, from certain members of the Ocean-street Congregational Church, Woollahra; 39 signatures.

„ 6 „ 1899, from certain members of the Wesleyan Congregation, Manly; 38 signatures.

„ 6 „ 1899, from certain residents of Balmain; 56 signatures.

„ 6 „ 1899, from certain members of the Baptist Tabernacle, Newcastle; 82 signatures.

„ 6 „ 1899, from certain residents of Katoomba; 73 signatures.

„ 6 „ 1899, from certain members of the Congregational Church, Eccleston; 40 signatures.

„ 6 „ 1899, from certain residents of Bourke; 15 signatures.

„ 6 „ 1899, from certain members of the Wesleyan Methodist Congregation, St. Leonards; 62 signatures.

„ 6 „ 1899, from certain members of the Primitive Methodist Church, Albion-street, Surry Hills; 40 signatures.

„ 6 „ 1899, from certain members of the Primitive Methodist Central Committee of Christian Endeavour Societies; 10 signatures.

„ 6 „ 1899, from certain members of the Primitive Methodist Church, St. John's Road, Forest Lodge; 73 signatures.

„ 6 „ 1899, from certain members of the Congregational Church, Stanmore; 53 signatures.

„ 6 „ 1899, from certain members of the Old Race-course Primitive Methodist Church, Newcastle; 37 signatures.

„ 6 „ 1899, from certain members of the East Sydney Ministers' Association; 5 signatures.

„ 6 „ 1899, from John S. Austin, Minister of the Wesleyan Church, Newcastle.

„ 6 „ 1899, from certain inhabitants of Petersham and District; 100 signatures.

„ 6 „ 1899, from certain members of the Bourke-street Congregational Church; 53 signatures.

„ 6 „ 1899, from John S. Austin, Minister of the Mayfield Wesleyan Church, Newcastle Circuit.

- On 6 December, 1899, from certain members of the Wesleyan Church, Central Hall, Balmain; 102 signatures.
- „ 6 „ 1899, from certain members of the Congregational Churches of Stockton and Islington; 1 signature.
- „ 6 „ 1899, from certain residents of East Maitland; 39 signatures.
- „ 6 „ 1899, from certain members of the Evangelical Council, Tamworth; 31 signatures.
- „ 6 „ 1899, from certain members of the Congregational Church, Burwood; 99 signatures.
- „ 6 „ 1899, from certain members of the Sunnyside Congregational Mission, Five Dock; 30 signatures.
- „ 6 „ 1899, from John S. Austin, Minister of the Burwood Wesleyan Church, Newcastle Circuit.
- „ 6 „ 1899, from certain members of the Congregational Church, Newtown; 152 signatures.
- „ 6 „ 1899, from certain members of the Baptist Church, Carlton; 47 signatures.
- „ 6 „ 1899, from certain members of the Primitive Methodist Church, Cromwell-street, Leichhardt; 47 signatures.
- „ 6 „ 1899, from certain members of the Congregational Church, Leichhardt; 46 signatures.
- „ 7 „ 1899, from certain members of the Annandale Primitive Methodist Church; 147 signatures.
- „ 7 „ 1899, from certain members of the Central Methodist Mission; 346 signatures.
- „ 7 „ 1899, from certain residents of Cobar and district; 53 signatures.
- „ 7 „ 1899, from certain members of the Congregational Church, Cleveland-street, Redfern; 85 signatures.
- „ 7 „ 1899, from certain members of the Wesleyan Church, Lambton; 34 signatures.
- „ 7 „ 1899, from certain residents of West Maitland; 194 signatures.
- „ 7 „ 1899, from certain members of the Wesleyan Church, Wallsend; 55 signatures.
- „ 7 „ 1899, from certain members of the Baptist Church, Auburn; 31 signatures.
- „ 7 „ 1899, from certain residents of Rookwood; 33 signatures.
- „ 7 „ 1899, from certain members of the Wesleyan Methodist Church, Ashfield; 38 signatures.
- „ 7 „ 1899, from certain members of the Wesleyan Church, Summer Hill; 117 signatures.
- „ 7 „ 1899, from certain members of the Wesleyan Church, Singleton; 74 signatures.
- „ 7 „ 1899, from certain members of the Congregational Church, Marrickville; 93 signatures.
- „ 7 „ 1899, from certain members of the Wesleyan Church and residents of Bathurst; 194 signatures.
- „ 7 „ 1899, from certain members of the Baptist Church, Islington; 34 signatures.
- „ 7 „ 1899, from certain members of the Wickham Church and congregation of the Primitive Methodist Connexion; 3 signatures.
- „ 7 „ 1899, from certain members of the Primitive Methodist Church, Lithgow; 30 signatures.
- „ 7 „ 1899, from certain residents of Kingsgrove, Hurstville, District of St. George; 19 signatures.
- „ 8 „ 1899, from certain residents of Bocobble, Molong district; 20 signatures.

1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

**TOTALISATOR BILL.**  
(PETITION FROM CERTAIN RESIDENTS OF GRAFTON AGAINST.)

*Received by the Legislative Assembly, 19 December, 1899.*

To the Legislative Assembly of New South Wales.

The humble Petition of the undersigned Residents of the city of Grafton,—

SHOWETH:—

That your Petitioners view with alarm the proposal to legalise gambling by means of the Totalisator, believing, as they do, that gambling is immoral, and that the introduction of the Totalisator to this Colony would result in the increase of betting, and be demoralising to youth and the good order of society.

They therefore humbly petition that the Totalisator Bill now before your Honorable House may not become law.

And your Petitioners will, as in duty bound, ever pray.

*[Here follow 29 signatures.]*

Similar Petitions were received—

- On 19th December, from certain Residents of the district of Camden; 319 signatures.
- On 20th December, from certain Wesleyan Residents of the Clarence Electorate; 25 signatures.
- On 20th December, from certain Residents of Young; 42 signatures.
- On 20th December, from certain Residents of Lockhart; 13 signatures.
- On 21st December, from certain Residents of Spring Hill, Millthorpe, and surrounding district; 209 signatures.
- On 22nd December, from certain Members of the Congregational Church, Summer Hill; 56 signatures.



1899.

(THIRD SESSION.)

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

## TOTALISATOR BILL.

(PETITION FROM CERTAIN MEMBERS OF THE CONGREGATIONAL CHURCH, NORTH SYDNEY, AGAINST.)

*Received by the Legislative Assembly, 12 December, 1899.*

To the Legislative Assembly of New South Wales in Parliament assembled.

The Petition of the Congregational Church, North Sydney,—

HUMBLY SHOWETH:—

That your Petitioners have viewed with alarm the introduction into your Honorable House of a Bill to legalise the use of an instrument known as the "Totalisator." They are convinced that said Bill, if made law, will work mischievously. It has done so elsewhere, and will in this Colony.

Betting and gambling are now treated as evil things; this measure will directly and seriously aggravate the evil.

Your Petitioners are convinced that multitudes will be led into this hurtful practice by the idea that the thing is "respectable," and thus great and terrible harm will be done to society.

Your Petitioners, therefore, implore your Honorable House to reject the said proposal, and, as in duty bound, your Petitioners, will ever pray.

*[Here follow 62 signatures.]*

Similar Petitions were received—

On 12 December, 1899, from certain members of the Wesleyan Church at Wagga Wagga; 50 signatures.  
 " 12 " 1899, from certain members of the Wesleyan Church, Willoughby; 48 signatures.  
 " 12 " 1899, from certain members of the Holtermans-street Wesleyan Church; 64 signatures.  
 " 12 " 1899, from certain members of the Congregational Church, Mortlake; 17 signatures.  
 " 12 " 1899, from Henry Pain, Chairman of a public meeting held in the Baptist Church, Burwood, on 27th November, 1899.  
 " 12 " 1899, from certain members of the Wesleyan Church, Enfield; 28 signatures.  
 " 12 " 1899, from certain members of the Wesleyan Church, Burwood; 58 signatures.  
 " 12 " 1899, from certain members of the Wesleyan Church, Hill End; 30 signatures.  
 " 12 " 1899, from certain members of the Primitive Methodist Church, Balmain; 17 signatures.  
 " 12 " 1899, from certain members of the Wesleyan Church, Goulburn; 74 signatures.  
 " 13 " 1899, from certain members of the Wesleyan Methodist Church, Lithgow; 49 signatures.  
 " 13 " 1899, from certain residents of Orange; 332 signatures.  
 " 13 " 1899, from certain residents of Albury and neighbourhood; 33 signatures.  
 " 13 " 1899, from certain members of the Wesleyan Church, Canterbury; 45 signatures.  
 " 13 " 1899, from certain members of the Wesleyan Church, Homebush; 28 signatures.  
 " 13 " 1899, from certain members of the Congregational Church, Canterbury; 21 signatures.  
 " 13 " 1899, from certain members of the Wesleyan Church, of the Wellington Circuit; 45 signatures.  
 " 13 " 1899, from certain members of the Wesleyan Methodist Church, Crookwell District; 58 signatures.  
 " 13 " 1899, from certain members of the Woman's Christian Temperance Union of New South Wales; 3 signatures.





1899.

(THIRD SESSION.)

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LEGISLATIVE ASSEMBLY.  
NEW SOUTH WALES.

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## INDECENT ADVERTISEMENTS BILL.

(PETITION FROM HIS GRACE THE ARCHBISHOP OF SYDNEY ON BEHALF OF THE COUNCIL OF CHURCHES, IN FAVOUR OF.)

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*Received by the Legislative Assembly, 30 November, 1899.*

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To the Honorable the Legislative Assembly of New South Wales, in Parliament assembled.

The humble Petition of the Council of Churches, a body comprising the Official Heads and Representatives of six of the largest Protestant Denominations in New South Wales,—

RESPECTFULLY SHOWETH :—

That your Petitioners are glad to see that a Bill has been introduced into your Honorable Assembly to “suppress indecent advertisements.”

That, in the judgment of your Petitioners, these advertisements have done, and are doing, an immense amount of harm to public morality.

That your Petitioners believe these advertisements to be, in many cases, only thinly-veiled solicitations to the commission of actual crime, as well as the suggestion of practices that are vicious.

That your Petitioners are aware that this kind of legislation is in force in other Colonies, and with manifestly beneficial results.

That your Petitioners therefore earnestly pray your Honorable Assembly to pass this Bill.

And your Petitioners, as in duty bound, will ever pray.

WM. SZ. SYDNEY,  
On behalf of the Council of Churches.

Sydney, 27th November, 1899.

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